

# Appendix E

## Red Flag Investigation and Hazardous Materials



# INDIANA DEPARTMENT OF TRANSPORTATION

*Driving Indiana's Economic Growth*

100 North Senate Avenue  
Room N642  
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

Note, per the INDOT Site Assessment & Management manual, the results of this RFI were re-evaluated on June 17, 2021, and the results remain valid.

Date: June 20, 2019

To: Site Assessment & Management  
Environmental Policy Office - Environmental Services Division  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Juliet Port, LPG  
Parsons  
101 W Ohio Street, Suite 2121  
Indianapolis, IN 46204  
[Juliet.Port@parsons.com](mailto:Juliet.Port@parsons.com)

Re: RED FLAG INVESTIGATION  
DES 1702941, State Project  
Bridge Replacement  
US 27 over Norfolk Southern Railroad, Fort Wayne Avenue, Ninth Street, and North E Street  
Wayne County, Indiana

## PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) is planning a bridge replacement project on US 27 over Norfolk Southern Railroad, Fort Wayne Avenue, Ninth Street, and North E Street in Wayne County, Indiana. Specifically, the project is located in the Richmond Quadrangle, in Section 32 of Township 14 North, Range 1 West. The project is located in an urban section of US 27 in the City of Richmond, Indiana. Land adjacent to the project area includes residential, industrial, commercial, and railroad properties. This is a bridge replacement project. Engineering analyses are pending.

Bridge and/or Culvert Project: Yes  No  Structure # 027-89-02136 B

If this is a bridge project, is the bridge Historical? Yes  No  , Select  Non-Select

(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary  # Acres N/A Permanent  # Acres N/A

Type of excavation: Excavations up to 30 feet below surface grade are anticipated for the bridge replacement.

Maintenance of traffic: The maintenance of traffic for the bridge replacement is anticipated to be a full closure. A detour would be provided.

Work in waterway: Yes  No  Below ordinary high-water mark: Yes  No

State Project:  LPA:

Any other factors influencing recommendations: Not Applicable

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INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	10*	Recreational Facilities	8**
Airports <sup>1</sup>	N/A	Pipelines	1
Cemeteries	1	Railroads	6
Hospitals	1	Trails	3
Schools	5*	Managed Lands	N/A

<sup>1</sup>In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required. Note, the only mapped airport, Reid Memorial Hospital Heliport, is no longer a public use airport.

\*Includes facilities not mapped in GIS.

\*\*Includes a facility mapped outside of the search radius; however, it's boundaries are within the search radius.

Religious Facilities\*: Ten (10) religious facilities are located within the 0.5 mile search radius. St. Paul's Episcopal Church is mapped approximately 0.22 mile south of the project area. Nine (9) unmapped religious facilities are located within 0.5 mile, including Original Church of God, Mt. Olive Baptist Church, Second Missionary Baptist Church, Iglesia Adventista Del Septimo Dia, Reid Memorial Presbyterian Church, Rock Solid Ministries, Central United Methodist Church, First Christian Church, and New Life Church-Nazarene. The nearest church is Mt Olive Baptist Church, located 0.19 mile northeast of the project area. Traffic will be maintained through the use of a detour. No impact is expected.

Cemeteries: One (1) cemetery is located within the 0.5 mile search radius. Friends Cemetery is adjacent to the east of the project area. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.

Hospitals: One (1) hospital is mapped within the 0.5 mile search radius. Reid Hospital & Health Care Services is mapped approximately 0.42 mile north of the project area. However, it was moved to approximately 1.8 miles north from the project area. Traffic will be maintained through the use of a detour. No impact is expected.

Schools\*: Five (5) schools are located within the 0.5 mile search radius. Richmond Day Nursery & Preschool is mapped approximately 0.10 mile south of the project area. Additional unmapped schools are located within 0.5 mile, including Galileo Charter School, Nicholson School, Seton Catholic School, and Warner School. No impact is expected.

Recreational Facilities: Eight (8) recreational facilities are located within the 0.5 mile search radius. The nearest facility, North 10<sup>th</sup> Street Park, is located adjacent to the project area. Coordination with the Richmond Parks and Recreation will occur.

Pipelines: One (1) pipeline is located within the 0.5 mile search radius. The nearest segment, associated with BP Oil Pipeline Co., is located approximately 0.07 mile south of the project area. No impact is expected.

Railroads: Six (6) railroads are located within the 0.5 mile search radius. One railroad segment crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

Trails: Three (3) trails are located within the 0.5 mile search radius. The nearest trail, the Cardinal Greenway, is located approximately 0.26 mile west of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	4
Canal Structures – Historic	N/A	Lakes	N/A
NPS NRI Listed	N/A	Floodplain - DFIRM	27
NWI-Lines	10	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	3	Sinkhole Areas	N/A
Rivers and Streams	7	Sinking-Stream Basins	N/A

NWI-Lines: Ten (10) NWI-Lines are located within the 0.5 mile search radius. The nearest line, associated with the East Fork of the Whitewater River, is located approximately 0.20 mile west of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes: Three (3) 303d Listed Streams are located within the 0.5 mile search radius. The East Fork of the Whitewater River is located approximately 0.20 mile west of the project area. The East Fork of the Whitewater River is listed as impaired for PCBs. No impact is expected.

Rivers and Streams: Seven (7) stream segments are located within the 0.5 mile search radius. The East Fork of the Whitewater River is located approximately 0.20 mile west of the project area. No impact is expected.

NWI-Wetlands: Four (4) NWI-wetlands are located within the 0.5 mile search radius. The nearest wetland is located approximately 0.35 mile northwest of the project area. No impact is expected.

Floodplains: Twenty seven (27) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain polygon is located approximately 0.19 mile west of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Urbanized Area Boundary (UAB): This project lies within the City of Richmond UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the City of Richmond MS4 Coordinator at 2380 Liberty Ave, Richmond, IN 47374.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	N/A	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation: No Mining/Mineral Exploration resources were identified within the 0.5 mile search radius.

## HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns			
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	8	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	5	Waste Transfer Stations	1
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	18	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	6
Construction Demolition Waste	N/A	Institutional Controls	9
Solid Waste Landfill	N/A	NPDES Facilities	8
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1
Leaking Underground Storage (LUST) Sites	11	Notice of Contamination Sites	N/A

RCRA Generator/TSD: Eight (8) RCRA Generators/TSDs are located within the 0.5 mile search radius. The nearest RCRA Generator/TSD, Vortex (aka Sunoco Food Mart/ Vortex Food #3), is located approximately 0.21 mile east of the project area (AID 54117). This facility is an active LUST site that reportedly did not generate hazardous waste. No impact is expected.

State Cleanup Sites: Five (5) State Cleanup Sites are located within the 0.5 mile search radius. The nearest facility is located adjacent to the east of the project area (incorrectly mapped 0.07 mile west). Rumpke of Indiana at 275 North Fort Wayne Avenue (AID 13819) is a solid waste transfer station (TS) that was a railroad switchyard and maintenance property. Current operations are limited to "truck parking and light engine servicing inside an enclosed building". However, this property has been in continuous use since 1853. It was a rail switchyard and the headquarters of the Pennsylvania Railroad. Historically, the rail yard was located within the project area (i.e. within current INDOT right-of-way). The facility has a 12,000-gallon diesel fuel UST that was installed in 1988 and remained in-use as recently as 2015. A former on-site manager speculated that motor oil was sprayed along the former tracks as herbicide. Subsurface investigations reported the presence of "industrial byproducts including slag, coal, coal fines, cinders and ash...". Its status as a solid waste processing facility (TS) remains active. The existing ERC and State Cleanup Activities were limited and only related to two surface releases of petroleum products. This facility is also associated with the Pennsylvania Railroad Depot site (AID 56240), discussed below under Brownfields. A Phase II Environmental Site Assessment is recommended.

Mechanics Laundry at 1002 North E Street, (AID 57281) is a dry cleaner located 0.08 mile east of the project area. The site had a registered UST for kerosene. A release of chlorinated solvents that extends off-site is under investigation. The extent of contamination is not fully defined and the groundwater flow is west-northwest towards the project bridge. A Phase II Environmental Site Assessment is recommended.

The 20<sup>th</sup> Century Bridge Project (Richmond Avenue over Sheridan Avenue, Whitewater River and CSX Railroad, AID 55760) is mapped 0.07 mile southwest but the bridge is actually 0.32 mile to the west of the project area. Impacted soils were encountered during borings for the bridge footers. The extent of contamination is unknown. No impact is expected.

Underground Storage Tank (UST) Sites: Eighteen (18) UST sites are located within the 0.5 mile search radius. The nearest site, Rumpke of Indiana, is located adjacent to the project area and was discussed above under State Cleanup Sites.

Old Hoffco Plant at 25 Washington Ave (AID 55123) is incorrectly mapped 0.08 mile west of the project area. It is located more than 0.5 mile northwest. No impact is expected.

Leaking Underground Storage (LUST) Sites: Eleven (11) LUST Sites are located within the 0.5 mile search radius. The nearest LUST site is the Mechanics Laundry site discussed above under State Cleanup Sites.

Waste Transfer Stations: One (1) Waste Transfer Station is located within the 0.5 mile search radius. The nearest site, Rumpke of Indiana, is located adjacent to the project area and was discussed above under State Cleanup Sites.

Brownfields: Six (6) Brownfield sites are located within the 0.5 mile search radius. The nearest site, Dana-Richmond Liner Foundry, is incorrectly mapped within the project area (AID 58742). This facility is located at 2153 Williamsburg Pike, approximately 1.9 miles northwest from the project area. The Pennsylvania Railroad Depot at 930 North E Street (AID 56240), is mapped 0.02 mile east of the project area. This property was investigated due to adjacent industrial, railroad, and dry cleaning land uses. The 1937 Sanborn map shows a filling station with gasoline tanks within existing right-of-way beneath the project bridge. Chlorinated solvents and polyaromatic hydrocarbons (PAHs) were encountered in soil and groundwater samples collected in 1999. Samples were also analyzed for polychlorinated biphenyls (PCBs). The results for PCBs were below detection limits. A Phase II Environmental Site Assessment is recommended.

Institutional Controls: Nine (9) Institutional Controls are located within the 0.5 mile search radius. The nearest site, Rumpke of Indiana, is located adjacent to the project area and was discussed above under State Cleanup Sites.

NPDES Facilities: Eight (8) NPDES Facilities are located within the 0.5 mile search radius. The nearest facility, JM Hutton & Company Incorporated, is located approximately 0.15 mile east of the project area (Permit No. INRM00903). No impact is expected.

NPDES Pipe Locations: One (1) NPDES Pipe Location is located within the 0.5 mile search radius. The site, Richmond Waste Water Treatment Plant (WWTP), is located approximately 0.45 mile southwest of the project area. No impact is expected.

#### ECOLOGICAL INFORMATION SUMMARY

The Wayne County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT ES did indicate the presence of ETR species. Coordination with the United States Fish and Wildlife Service (USFWS) and the Indiana Department of Natural Resources (IDNR) will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located along an urbanized section of US 27. The April 9, 2019, inspection report for Bridge #027-89-02136 B states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

An inquiry using the USFWS IPaC website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

## RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

### INFRASTRUCTURE:

Cemeteries: One (1) cemetery is located adjacent to the project area. Coordination with INDOT Cultural Resources will occur.

Recreational Facilities: One (1) recreation facility, North 10th Street Park, is located adjacent to the project area. Coordination with the Richmond Parks and Recreation Board will occur.

Railroads: One (1) railroad segment crosses the project area. Coordination with INDOT Utilities and Railroads will occur.

### WATER RESOURCES: N/A

URBANIZED AREA BOUNDARY: This project lies within the City of Richmond UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the City of Richmond MS4 Coordinator at 2380 Liberty Ave, Richmond, IN 47374.

### MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: Five (5) State Cleanup Sites are located within the 0.5 mile search radius. The nearest facility is located adjacent to the east of the project area (incorrectly mapped 0.07 mile west). Rumpke of Indiana at 275 North Fort Wayne Avenue (AID 13819) is a solid waste transfer station (TS) that was a railroad switchyard and maintenance property. Current operations are limited to "truck parking and light engine servicing inside an enclosed building". However, this property has been in continuous use since 1853. It was a rail switchyard and the headquarters of the Pennsylvanian Railroad. Historically, the rail yard was located within the project area (i.e. within current INDOT right-of-way). The facility has a 12,000-gallon diesel fuel UST that was installed in 1988 and remained in-use as recently as 2015. A former on-site manager speculated that motor oil was sprayed along the former tracks as herbicide. Subsurface investigations reported the presence of "industrial byproducts including slag, coal, coal fines, cinders and ash...". Its status as a solid waste processing facility (TS) remains active. The existing ERC and State Cleanup Activities were limited and only related to two surface releases of petroleum products. This facility is also associated with the Pennsylvania Railroad Depot site (AID 56240), discussed below under Brownfields. A Phase II Environmental Site Assessment is recommended.

Mechanics Laundry at 1002 North E Street, (AID 57281) is a dry cleaner located 0.08 mile east of the project area. The site had a registered UST for kerosene. A release of chlorinated solvents that extends off-site is under investigation. The extent of contamination is not fully defined and the groundwater flow is west-northwest towards the project bridge. A Phase II Environmental Site Assessment is recommended.

The Pennsylvania Railroad Depot at 930 North E Street (AID 56240), is mapped 0.02 mile east of the project area. This property was investigated due to adjacent industrial, railroad, and dry cleaning land uses. The 1937 Sanborn map shows a filling station with gasoline tanks within existing right-of-way beneath the project bridge. Chlorinated solvents and polyaromatic hydrocarbons (PAHs) were encountered in soil and groundwater samples collected in 1999. Samples were also analyzed for polychlorinated biphenyls (PCBs). The results for PCBs were below detection limits. A Phase II Environmental Site Assessment is recommended.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC system for Listed Bat and Consultation for INDOT Projects".

Marlene Mathas

Digitally signed by Marlene Mathas

Date: 2019.06.21 11:16:07 -04'00' (Signature)

INDOT Environmental Services concurrence: \_\_\_\_\_

Prepared by:



Juliet Port, LPG  
Senior Environmental Planner  
Parsons

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

Refer to Appendix B for a site location map.

INFRASTRUCTURE: YES

WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

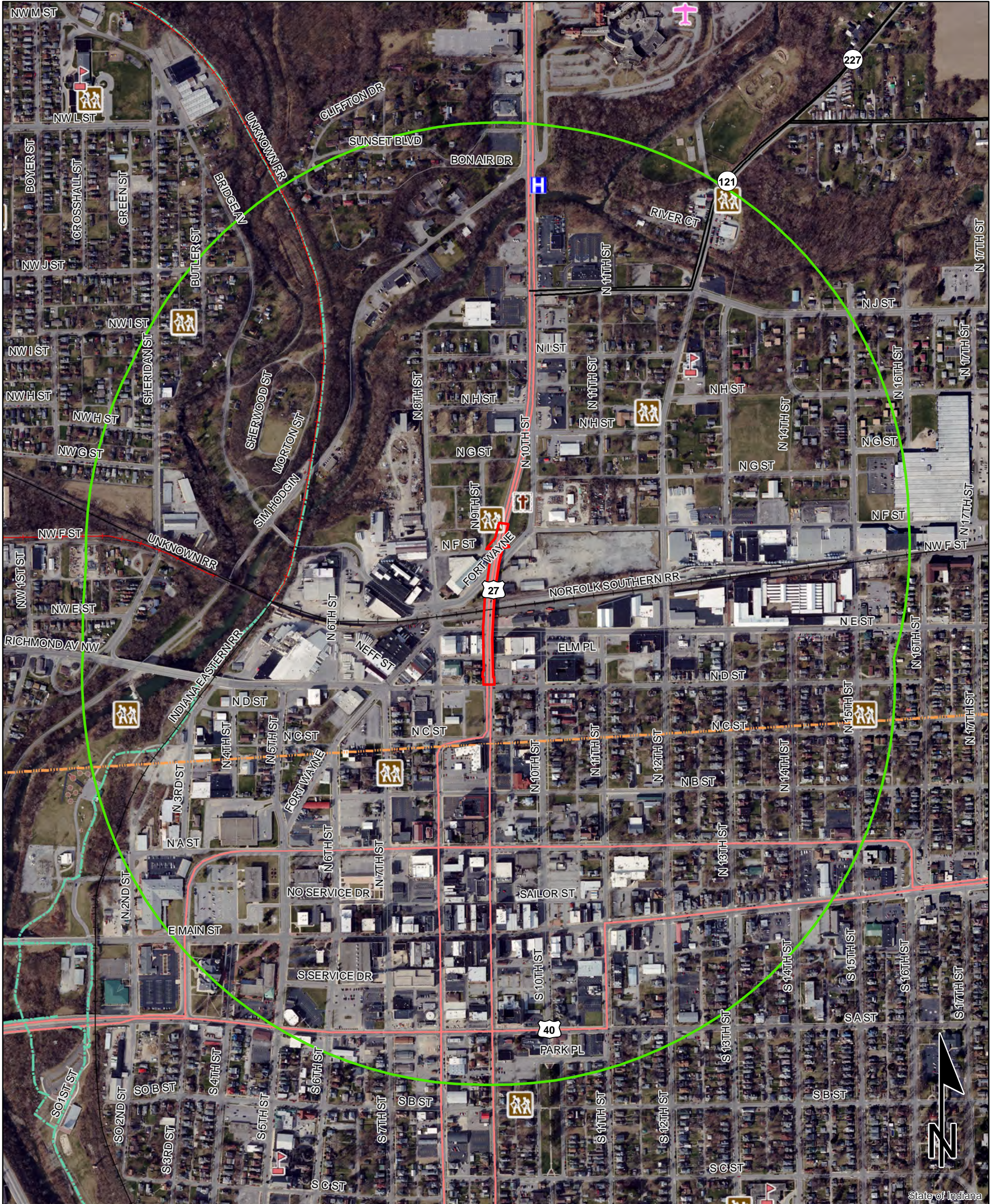


# Red Flag Investigation - Infrastructure

## US 27 over Norfolk Southern Railroad

### Des. No.1702941, Bridge Replacement

### Wayne County, Indiana



**Sources:** 0.15 0.075 0 0.15 Miles  
**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

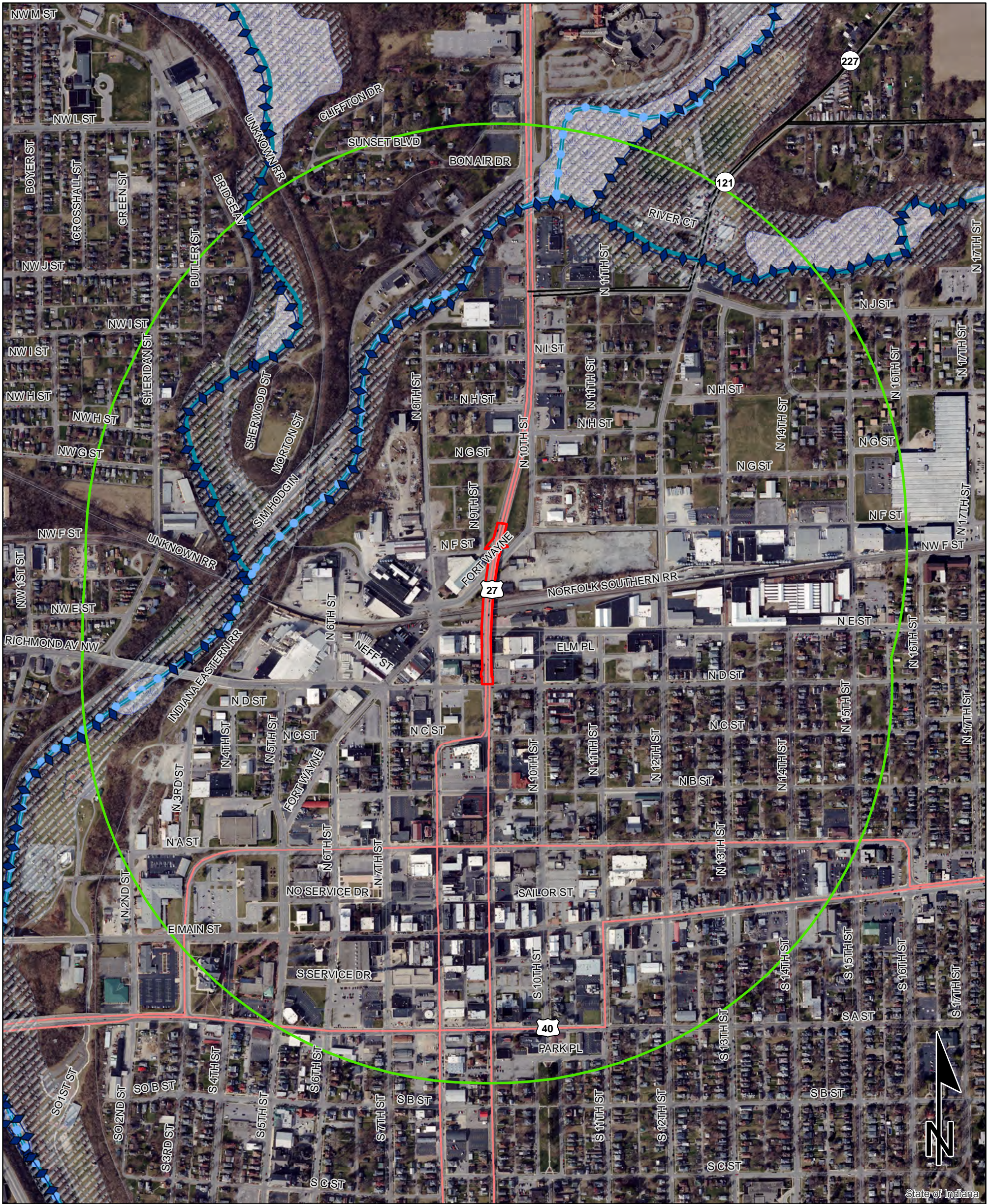
	Religious Facility		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
	County Boundary		US Route		Local Road

# Red Flag Investigation - Water Resources

## US 27 over Norfolk Southern Railroad

### Des. No.1702941, Bridge Replacement

### Wayne County, Indiana



**Sources:** 0.15 0.075 0 0.15 Miles

**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library

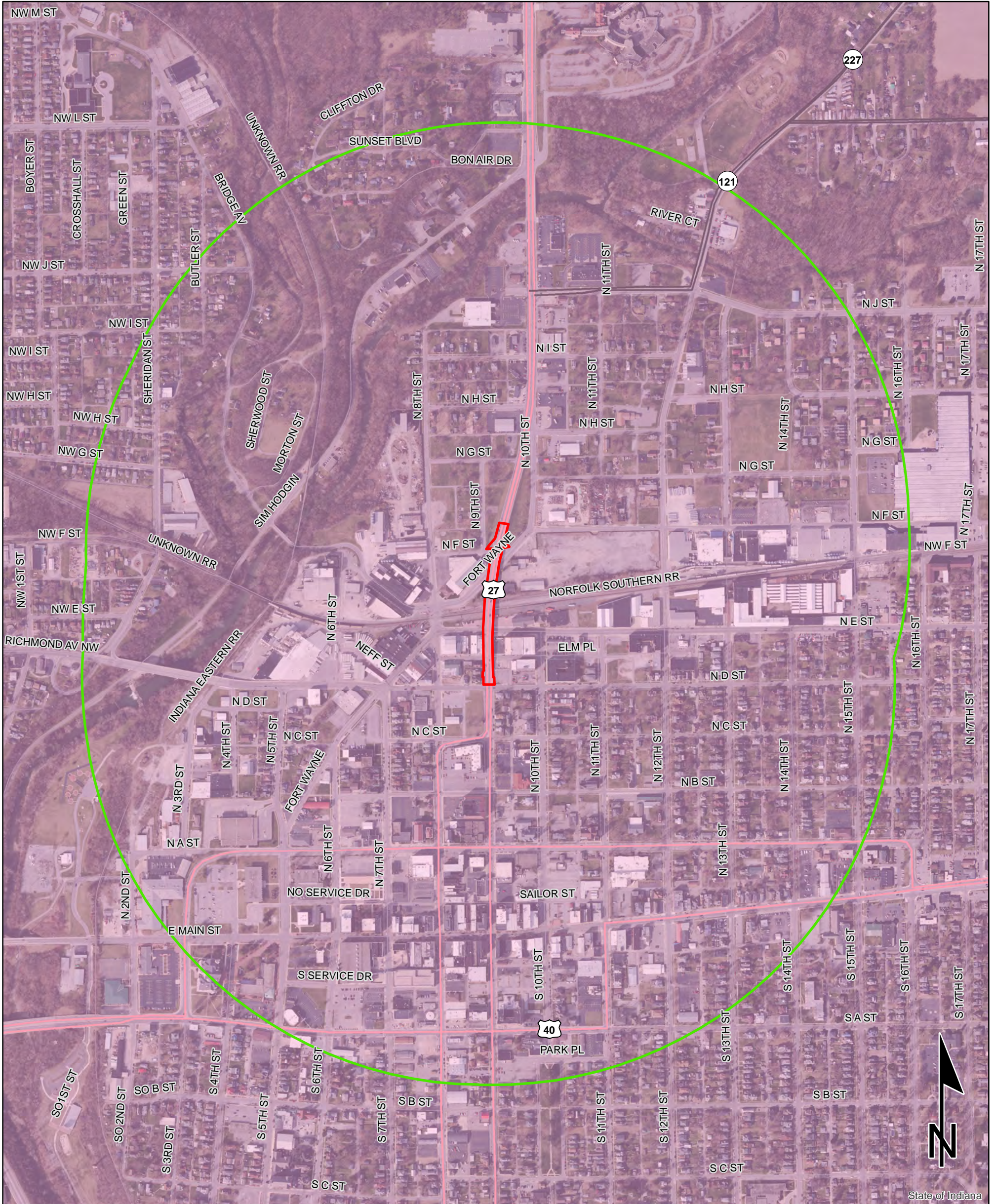
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))

**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

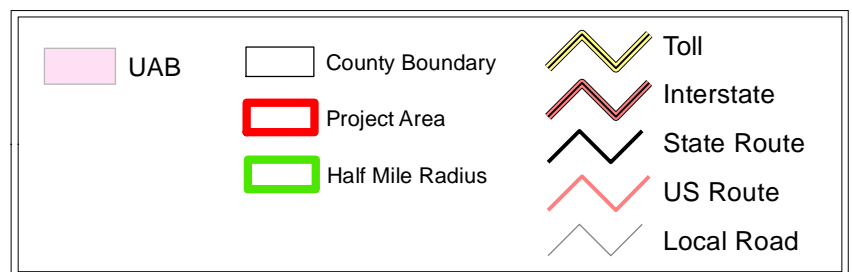
**This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.**

NWI - Point	Wetlands	Project Area
Karst Spring	Lake	Half Mile Radius
NWI- Line	Floodplain - DFIRM	Toll
Impaired_Stream_Lake	Cave Entrance Density	Interstate
NPS NRI listed	Sinkhole Area	State Route
River	Sinking-Stream Basin	US Route
Canal Structure - Historic	County Boundary	Local Road
Canal Route - Historic		

# Red Flag Investigation - Urbanized Area Boundary US 27 over Norfolk Southern Railroad Des. No.1702941, Bridge Replacement Wayne County, Indiana



**Sources:** 0.15 0.075 0 0.15 Miles  
**Non Orthophotography Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83  
**This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.**

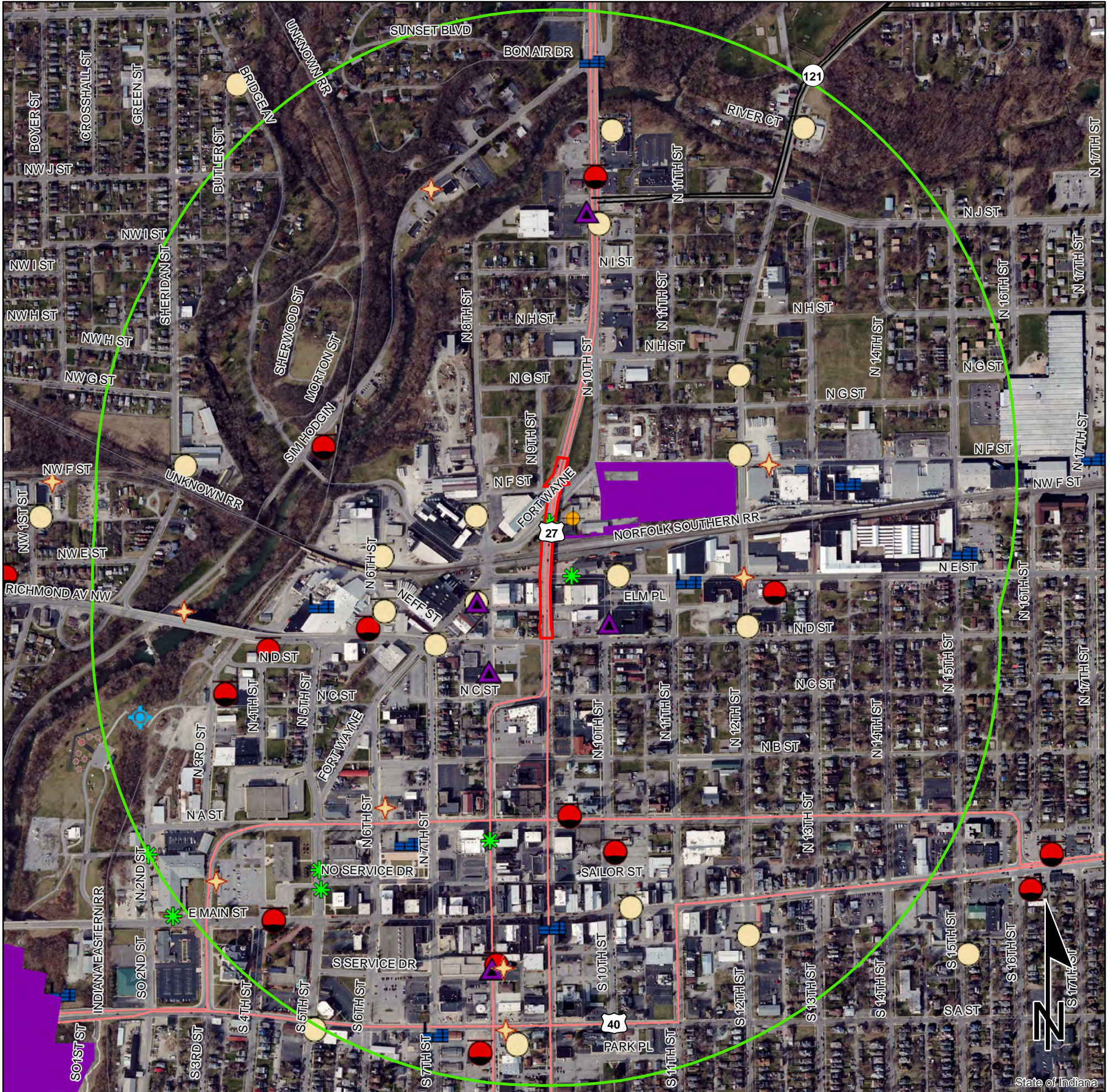


# Red Flag Investigation - Hazardous Material Concerns

## US 27 over Norfolk Southern Railroad

### Des. No.1702941, Bridge Replacement

### Wayne County, Indiana



	Brownfield		RCRA Generator/TSD		Institutional Controls
	RCRA Corrective Action Sites		Restricted Waste Site		County Boundary
	Confined Feeding Operation		Septage Waste Site		Project Area
	Notice_of_Contamination		Solid Waste Landfill		Half Mile Radius
	Construction/Demolition Site		State Cleanup Site		Toll
	Infectious/Medical Waste Site		Superfund		Interstate
	Leaking Underground Storage Tank		Tire Waste Site		State Route
	Manufactured Gas Plant		Underground Storage Tank		US Route
	NPDES Facilities		Voluntary Remediation Program		Local Road
	NPDES Pipe Locations		Waste Transfer Station		
	Open Dump Waste Site				

0.15 0.075 0 0.15 Miles

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Des. 1702941

Appendix E

**Sources:**  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83

Page E-11

Indiana County Endangered, Threatened and Rare Species List

County: Wayne

Species Name	Common Name	FED	STATE	GRANK	SRANK
<b>Mollusk: Bivalvia (Mussels)</b>					
Ptychobranhus fasciolaris	Kidneyshell		SSC	G4G5	S2
<b>Insect: Coleoptera (Beetles)</b>					
Cicindela marginipennis	Cobblestone Tiger Beetle	C	SE	G2	S1
<b>Insect: Lepidoptera (Butterflies &amp; Moths)</b>					
Euphydryas phaeton	Baltimore		SR	G5	S2
<b>Insect: Odonata (Dragonflies &amp; Damselflies)</b>					
Cordulegaster bilineata	Brown Spiketail		SE	G5	S3
Macromia wabashensis	Wabash River Cruiser		SE	G1G3Q	S1
Somatochlora tenebrosa	Clamp-tipped Emerald		SR	G5	S2S3
Tachopteryx thoreyi	Gray Petaltail		w1	G4	S3
<b>Insect: Tricoptera (Caddisflies)</b>					
Pycnopsyche rossi	A Northern Casemaker Caddisfly		SE	G3	S1
<b>Fish</b>					
Ichthyomyzon bdellium	Ohio Lamprey			G3G4	S2
Notropis ariommus	Popeye Shiner			G3	SX
<b>Amphibian</b>					
Lithobates pipiens	Northern Leopard Frog		SSC	G5	S2
<b>Reptile</b>					
Clonophis kirtlandii	Kirtland's Snake	C	SE	G2	S2
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2
Thamnophis butleri	Butler's Garter Snake		SE	G4	S1
<b>Bird</b>					
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Pandion haliaetus	Osprey		SE	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Tyto alba	Barn Owl		SE	G5	S2
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
<b>Mammal</b>					
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Taxidea taxus	American Badger		SSC	G5	S2
<b>Vascular Plant</b>					
Juglans cinerea	Butternut		WL	G4	S3
Juniperus communis	Ground Juniper		SR	G5	S2
Panax quinquefolius	American Ginseng		WL	G3G4	S3

Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

**Indiana County Endangered, Threatened and Rare Species List**

**County: Wayne**

Species Name	Common Name	FED	STATE	GRANK	SRANK
Plantago cordata	Heart-leaved Plantain		SE	G4	S1
Satureja glabella var. angustifolia	Calamint		SE	G5	S1
Spiranthes lucida	Shining Ladies'-tresses		SR	G4	S2
Viburnum molle	Softleaf Arrow-wood		SR	G5	S2
Waldsteinia fragarioides	Barren Strawberry		SR	G5	S2
<b>High Quality Natural Community</b>					
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - upland dry Central Till Plain	Central Till Plain Dry Upland Forest			GNR	S1
Forest - upland dry-mesic Central Till Plain	Central Till Plain Dry-mesic Upland Forest			GNR	S2
Forest - upland mesic Bluegrass	Bluegrass Mesic Upland Forest			GNR	S3
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest			GNR	S3
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Wetland - fen	Fen		SG	G3	S3
Wetland - swamp shrub	Shrub Swamp		SG	GU	S2
<b>Other Significant Feature</b>					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

Indiana Natural Heritage Data Center  
Division of Nature Preserves  
Indiana Department of Natural Resources  
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting  
State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list  
GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank  
SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Excerpts

# Phase II Environmental Site Assessment

US 27 over NSRR and Local Streets  
Richmond, Wayne County, Indiana

March 15, 2021

INDOT Des. No. 1702941

Terracon Project No. CJ187096



**Prepared for:**

Indiana Department of Transportation  
Environmental Services Division  
Indianapolis, Indiana

**Prepared by:**

Terracon Consultants, Inc. & Parsons Transportation Group  
Indianapolis, Indiana

March 15, 2021

Indiana Department of Transportation  
Environmental Services Division  
100 North Senate Avenue, Room N642  
Indianapolis, Indiana 46204

Attn: Site Assessment and Management (SAM) Team Lead  
P: (317) 232-5113  
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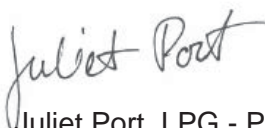
Re: Phase II Environmental Site Assessment  
US 27 over Norfolk Southern Railroad (NSRR) and Local Streets  
Richmond, Wayne County, Indiana  
INDOT Des No. 1702941  
Terracon Project No. CJ187096

Dear SAM Team Lead:

Terracon Consultants, Inc. (Terracon) and Parsons Transportation Group (Parsons) are pleased to submit our report of Phase II Environmental Site Assessment (Phase II ESA) activities completed at the above referenced site. This investigation was performed in general accordance with Parsons Project Memorandum dated April 29, 2020. This report includes the findings of the investigation and our conclusions and recommendations.

Terracon and Parsons appreciate this opportunity to provide environmental consulting services to you. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,



Juliet Port, LPG - Parsons  
Principal Environmental Planner



Paul Melillo, CHMM - Terracon  
Environmental Department Manager



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## Phase II Environmental Site Assessment

### US 27 over Norfolk Southern Railroad (NSRR) and Local Streets

INDOT Des. No. 1702941

March 15, 2021

## 1.0 INTRODUCTION

### 1.1 Summary of the Proposed Project

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) are planning a bridge replacement project on US 27 over Norfolk Southern Railroad (NSRR) and Local Streets in Wayne County, Indiana. US 27 serves as a main north-south route for the downtown Richmond area, and the existing bridge is approximately 0.3 miles north of westbound US 40. In addition to crossing NSRR, the 17-span US 27 bridge crosses five local streets. Of those five, N. E Street and Fort Wayne Avenue are both major collectors; two are local roads, Elm Place and N. F Street; and the fifth is an alley that is entirely covered by the existing bridge that connects Elm Place and N. E Street. A project location map is included as Exhibit 1 in Appendix A.

The recommended alternative for this project will replace the existing structure with a seven-span bridge on the same alignment. The segment of N. F Street located at the north bridge abutment will be permanently closed to traffic and filled. The existing sidewalks on the bridge will be replaced with an ADA-compliant pedestrian facility on the west side of the bridge. The eastern sidewalk and staircases will be removed, while the northwestern staircase would remain. Guardrail will be replaced as-needed.

Options for the design of the bridge foundations include spread footers, drilled shafts, and driven piles, which could extend into bedrock. The maximum depth to the top of bedrock is approximately 35 feet below ground surface (ft-bgs). The need for groundwater dewatering during construction, if any, will depend on the foundation design and subsurface conditions. In order to shorten the bridge and close N. F Street, a retaining wall is proposed which will extend up to approximately 10 ft-bgs. The existing bridge foundations will be removed up to two ft-bgs, allowing the deeper portions to remain in-place.

### 1.2 Rationale

A *Red Flag Investigation* (RFI) was prepared by Parsons and approved by INDOT Environmental Services, Site Assessment & Management (SAM) on June 6, 2019. A *Memorandum for a Phase II Environmental Site Assessment Scope of Work* was approved by INDOT on April 29, 2020 (herein after referred to as the SOW Memo).

## Phase II Environmental Site Assessment

US 27 Road Bridge ■ Richmond, Indiana

Des. No. 1702941 ■ March 15, 2021



The following recognized environmental conditions (RECs) were identified in the RFI that resulted in a recommendation for a Phase II ESA.

- Rumpke of Indiana at 275 North Fort Wayne Avenue adjacent east of the project area is a solid waste transfer station (TS) that has operated in the past as a railroad switchyard and maintenance property. This property has been in continuous use since 1853 and was a rail switchyard historically located within the project area (i.e. within current INDOT right-of-way). The facility has a 12,000-gallon diesel fuel Underground Storage Tank (UST) that was installed in 1988 and remained in use as recently as 2015. A former on-site manager speculated that motor oil was sprayed along the previous tracks as an herbicide. Subsurface investigations reported the presence of “industrial byproducts including slag, coal, coal fines, cinders and ash...”.
- Mechanics Laundry at 1002 North E Street is a dry cleaner located 0.08 mile east of the project area registered on the Indiana Department of Environmental Management (IDEM) State Cleanup Program (SCP) Site ID #000568. The site had a registered UST that had contained kerosene. A release of chlorinated solvents that extends off-site is under investigation. The extent of contamination is not fully defined, and the groundwater flow is west-northwest towards the project bridge.
- The Pennsylvania Railroad Depot at 930 North E Street (associated with the Rumpke site above) is mapped 0.02 mile east of the project area. This property was investigated due to adjacent industrial, railroad, and dry-cleaning land uses. The 1937 Sanborn map shows a filling station with gasoline tanks within existing right-of-way beneath the project bridge. Chlorinated solvents and polyaromatic hydrocarbons (PAHs) were encountered in soil and groundwater samples collected in 1999.
- Historical Sanborn maps show Hoosier Pete filling station was located within INDOT right-of-way, south of Ft. Wayne Avenue, where a bridge pier is proposed. No IDEM or investigation records exist related to this property.
- Historical Sanborn maps show Vortex Bulk Oil plant was located within INDOT right-of-way, south of Ft. Wayne Avenue, between proposed bridge piers. No IDEM or investigation records exist related to this property.

## 2.0 SCOPE OF SERVICES

The scope of services were conducted in accordance with the SOW Memo as described within this report; except, however, access to the NSRR property was denied by Norfolk Southern for the purposes of environmental sampling. Therefore, in coordination with INDOT SAM and the Greenfield District, it was decided to proceed with the geotechnical borings within the railroad

## Phase II Environmental Site Assessment

US 27 Road Bridge ■ Richmond, Indiana

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property with environmental oversight and proper handling of wastes. A qualified environmental geologist performed oversight of the geotechnical borings that were advanced within the NSRR right-of-way. Accordingly, proposed direct push borings B-5 and B-6 were eliminated for this project. The remainder of the scope of services were consistent with the SOW Memo.

### 2.1 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These Phase II ESA services were performed in accordance with the scope of work agreed with you, our client, as reflected in our original proposal, parenting agreement and supplemental Agreement for Services.

### 2.2 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the onsite activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this Phase II ESA. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

### 2.3 Reliance

This Phase II ESA report is prepared for the exclusive use and reliance of INDOT (the client). Use or reliance by any other party is prohibited without the written authorization of the client and Terracon Consultants, Inc. (Terracon).

Any unauthorized distribution or reuse is at client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, Phase II ESA report, the Agreement for Services, and supplemental agreement for services. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties.



### 3.0 FIELD INVESTIGATION

Terracon and Parsons conducted the fieldwork under a safety plan developed for this project. Work was performed using the Occupational Health & Safety Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots. Terracon contacted Indiana 811 and a private utility locator to mark utilities that the services were responsible for, or in the immediate vicinity of the soil boring locations, before commencing intrusive activities at the site.

#### 3.1 Soil Sampling

On May 4 and 5, 2020, Terracon mobilized a direct push sampling rig to advance six soil borings (B-1 through B-4, and B-7 and B-8) at the site. Borings were advanced to maximum depths of up to 29.5 ft-bgs at which depth refusal on bedrock was encountered. Borings B-3, B-4 and B-7 were advanced to depths of 22.5, 20.2 and 26 feet ft-bgs, respectively, for the collection of both soil and groundwater samples (via temporary assessment wells). B-1, B-2 and B-8 were advanced to depths of 16 feet ft-bgs (B-1 and B-2) and 29.5 feet ft-bgs (B-8) for the collection of soil samples only. A boring location map is included as Exhibit 2 in Appendix A. The soil boring logs can be found in Appendix C. A summary of the borings is provided below.

**Table 1. Direct Push Boring Summary**

Boring	Purpose / Location	Total Depth ft-bgs	Laboratory Samples (depth ft-bgs)
B-1	Proposed retaining wall / northwest of North F Street	16	Soil (8-10) and (14-16)
B-2	Proposed retaining wall / northeast of North F Street	16	Soil (8-10) and (14-16)
B-3	Proposed end bent / south of North F Street	22.5 <sup>1</sup>	Soil (10-12) and (18-20) Groundwater
B-4	Proposed Pier No. 7 / south of Fort Wayne Avenue	20.2 <sup>1</sup>	Soil (4-6) and (12-14) Groundwater
N/A <sup>2</sup> [B-5 and B-6]	Proposed Piers Nos. 5 and 6 / within NSRR property	N/A	Laboratory samples were not permitted. Geotechnical borings were observed, see Section 3.4.
B-7	Proposed Pier No. 4 / north of North E Street	26.0 <sup>1</sup>	Soil (10-12), (12-16) and (24-26) Groundwater
B-8	Proposed Pier No. 3 / south of North E Street	29.5 <sup>1</sup>	Soil (8-12) and (28-30)

<sup>1</sup>Terminated at top-of-bedrock/probe refusal

<sup>2</sup> Proposed direct push borings B-5 and B-6 were eliminated due to railroad access issues.



Headspace screening of soil samples was conducted utilizing a calibrated photoionization detector (PID) equipped with a 11.7 electron-volt (eV) ultraviolet lamp source, which provides measurements of total volatile organic vapors in parts per million (ppm) isobutylene equivalents. Sampling personnel wore disposable nitrile gloves to minimize the potential for sample contamination. Samples were placed in laboratory prepared containers, labeled, and preserved on ice in a cooler, which was secured with custody seals. The aliquots for analysis of volatile organic compounds (VOCs) were collected via USEPA SW-846 Method 5035A to minimize VOC loss during collection. The samples were submitted to Pace Laboratories in Indianapolis, Indiana for laboratory analysis. Analytical parameters (detailed below) were selected based on the approved SOW Memo.

Soil samples were collected from each boring and were analyzed for the following chemicals of concern (CoCs): VOCs via USEPA SW846 Methods 8260 which includes lead scavengers, polyaromatic hydrocarbons (PAHs) via USEPA SW846 Method 8270SIM, and metals Cadmium, Chromium, Lead and Mercury via USEPA SW846 Method 6010/7471.

### **3.2 Groundwater Sampling**

Upon completion of soil sampling activities, three soil borings (B-3, B-4 and B-7) were converted to one-inch diameter temporary assessment wells for the collection of groundwater samples. The wells were constructed of polyvinyl chloride (PVC) screen (0.010-inch factory slotted) and PVC riser. Well construction details are shown on the applicable boring logs in Appendix C.

Groundwater was collected from the approximate vertical mid-point of the well screen using dedicated tubing connected to a ¾-inch stainless-steel submersible bladder pump. Groundwater samples from temporary wells B-3 and B-4 were collected using low-flow sampling techniques outlined in the IDEM Micro-Purge Sampling Option Guidance (Updated December 12, 2017). Samples were collected upon the stabilization of three or more field parameters (temperature, pH, dissolved oxygen, oxygen reduction potential and specific conductivity). Due to insufficient groundwater recharge and water level “head” above the low flow pump, low-flow sampling was not possible at temporary well B-7. Therefore, groundwater from well B-7 was sampled using a new dedicated disposable bailer after purging approximately three well volumes of water.

Groundwater samples from temporary assessment wells were placed in laboratory prepared containers, labeled, and preserved on ice in a cooler, which was secured with custody seals, and submitted for laboratory analysis. Groundwater samples were analyzed for the following CoCs: VOCs via USEPA SW846 Method 8260 (which includes lead scavengers), PAHs via USEPA SW846 Method 8270SIM, and total and dissolved metals via USEPA SW846 Method 6010/7470.

### 3.3 Geophysical Survey

To assist in identifying the presence of subsurface structures associated with past use of the site, such as USTs, Terracon completed a Ground Penetrating Radar (GPR) survey on May 4, 2020. The survey was conducted in two areas underneath the US 27 bridge, an approximate 2,150-square foot area to the north of Fort Wayne Avenue, and an approximate 4,750-square foot area to the south of Fort Wayne Avenue. See Exhibit 4 in Appendix B for the Geophysical Site Map.

The GPR survey was completed using a cart-mounted Sensors and Software Noggin 250-Mhz system. The survey limits were established using fiberglass tape measurements, while individual traverses were performed by visual line of sight between markers. The positional accuracy of anomalies in the GPR dataset is limited to the accuracy of this method. The total imaging depth was set at approximately 4½ feet, based on initial site GPR scans. This depth referenced is strictly an estimate based on an assumed signal velocity of the subsurface.

### 3.4 Geotechnical Borings

Terracon returned to the project area in August 2020 to perform geotechnical borings for the project. On August 10<sup>th</sup> through the 12<sup>th</sup>, 2020, a qualified licensed professional geologist (LPG) from Parsons provided oversight of the two borings advanced near the eliminated direct push borings, B-5 and B-6, which were designated as TB-8 and TB-7, respectively (see Figure 3). Continuous soil samples were collected from these two borings using a standard (2 inch) split spoon and a (3 ¼ inch) hollow-stem auger (HSA) drill rig. Once auger-refusal was encountered, continuous rock cores were collected with a NQ2 core-barrel (2 inch core) to the maximum depths of the borings (68 and 69 ft-bgs). Boring locations were off-set for safety and clearance purposes. The boring locations are shown on Exhibit 3 and the boring logs are provided in Appendix C. A geotechnical report will be submitted to INDOT under separate cover.

## 4.0 RESULTS OF THE FIELD INVESTIGATION

### 4.1 Geology/Hydrogeology

The boring logs in Appendix C detail the observed soil stratigraphy. In general, Terracon encountered fill materials to depths ranging from 6 to 12.5 feet ft-bgs underlain by sand with variable gravel content, underlain in turn by clays and sands or weathered shale to the maximum depth of exploration (up to 29.5 feet ft-bgs), at which drilling refusal was encountered. Groundwater was encountered at B-3, B-4, and B-7 at depths ranging from 12 to 13 ft-bgs at the time of borehole advancement.

### 4.2 Field Screening

The field screening results are summarized on the boring logs in Appendix C. Olfactory evidence and relatively elevated PID readings<sup>1</sup> indicative of potential impact were encountered in B-1 at 8-10 ft-bgs, B-4 at 8-14 ft-bgs, and B-7 at 0-20 ft-bgs.

Typical urban fill materials, including construction debris such as brick, concrete, and apparent “copper wire” fragments, were observed in the HSA borings TB-7 and TB-8 from the ground surface to 6.0 and 4.5 ft-bgs, respectively. No evidence of petroleum- or chemical-like odors, nor visual evidence of obvious impacts such as staining, sheens, etc., were noted in the HSA borings. In boring TB-8, the split-spoon sampler retrieved approximately two inches of fibrous cement board that appeared to be transite, an asbestos containing material, at a depth of approximately 4.0 ft-bgs.

### 4.3 Geophysical Survey Results

The geophysical results are summarized in Exhibits 4 and 5 in Appendix B. Five “high target” areas noted as red cross-hatched polygons were identified in the GPR datasets. The density of the targets in these zones limits the identification of subsurface structures or objects. It is likely that these areas represent construction debris of varying sizes associated with past use of the site. The geophysical survey did not identify anomalies associated with UST systems. See Exhibit 5 for additional details on the high target areas.

Terracon has developed these geophysical interpretations based on our professional knowledge of the methods used and their limitations, our knowledge of the site-specific conditions at the time of the survey, and the results obtained using these methods in similar conditions. However, site

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<sup>1</sup> PIDs are common field screening instruments that are impacted by a variety of factors including contaminant type, contaminant load, matrix type, moisture content, and temperature; therefore, results are considered relative. The PID results were evaluated per boring to assist in selecting the samples submitted for laboratory analysis.





conditions (i.e., interferences from other objects, etc.) will ultimately dictate the validity of the interpretations. Geophysical methods rely on the indirect measurements of the physical properties and geometries of subsurface materials, which can result in non-unique datasets and interpretations. Consequently, all geophysical methods are inherently subject to error. Because of these inherent limitations, Terracon does not guarantee that the geophysical surveys have detected all subsurface objects that are present, or that the interpreted or uninterpreted identities, locations, or depths are exact or in fact, correct.

## **5.0 ANALYTICAL RESULTS**

The laboratory analytical reports and chain-of-custody records are attached in Appendix D. The following sections describe the results of the testing.

### **5.1 Soil Sample Results**

The soil analytical results were compared to IDEM 2020 screening levels (SLs) from the IDEM Remediation Closure Guide (RCG), and applicable Resource Conservation and Recovery Act (RCRA) guidelines. Soil SLs include residential, commercial/industrial, and excavation SLs, as well as soil migration to groundwater (MTG) SLs. RCRA guidelines include the Toxic Characteristic Leachate Procedure (TCLP) “20x Rule” as described in Section 5.2.3.1 of the INDOT Site Assessment & Management (SAM) Manual. The soil sample analytical results are shown in Table 2 – VOCs PAHs, and Metals in Soil and Exhibit 2 – Soil Analytical Results Map.

Results for VOCs in soil were below laboratory detection limits, except for two samples. Soil sample B-1 (8-10 ft-bgs) had low concentrations of petroleum-related CoCs, such as 1- and 2-methylnaphthalene, which are below SLs. Soil sample B-7 (10-12 ft-bgs), had a concentration of tetrachloroethene (PCE) of 0.0098 milligrams per kilogram (mg/kg), which is below the MTG SL of 0.045 mg/kg.

Relatively low concentrations of PAHs were detected in the following soil samples submitted for analysis: B-1 (8-10 ft-bgs), B-2 (8-10 ft-bgs), B-2 (14-16 ft-bgs), B-3 (10-12 ft-bgs), B-3 (18-20 ft-bgs), B-4 (4-6 ft-bgs), B-7 (10-12 ft-bgs), B-7 (24-26 ft-bgs) and B-8 (8-12 ft-bgs). However, no samples exhibited concentrations above the IDEM RCG SLs. Regarding metals, results were below method detection limits for mercury. Concentrations of cadmium, chromium, and lead were reported below applicable IDEM RCG SLs as well as the “TCLP 20x Rule”.

Due to detections of chromium in soil samples, follow-up analysis for chromium VI was carried out using USEPA SW846 Method 7199 for all soil samples. The established laboratory reporting

limit is above the MTG SLs; therefore, "J-Flag" results were requested<sup>2</sup>. Sample B-7 (10-12 ft-bgs) was estimated to have a chromium VI concentration of 0.481 mg/kg, and Sample B-8 (28-30 ft-bgs) was estimated to have a concentration of 0.402 mg/kg. These results exceed the chromium VI MTG SL of 0.14 mg/kg. Furthermore, the other soil samples had results for chromium VI that ranged from <0.201 to <0.298 mg/kg, which exceed the MTG SL of 0.14 mg/kg. Although these results are below laboratory detection limits, they should be considered above MTG SLs due to the potential exceedances.

## 5.2 Groundwater Sample Results

The groundwater analytical results were compared to the IDEM 2020 RCG Groundwater Tap Residential SLs. Refer to Exhibit 3 – Groundwater Analytical Results Map and Table 3 - VOCs, PAHs, and Metals in Groundwater.

In general, results for VOCs were below laboratory detection limits, except for 24.4 micrograms per liter (ug/L) of chloroform in sample B-3-W and 11.4 ug/L of cis-1,2-dichlorethene in sample B-4-GW, which are below the applicable SLs of 80 ug/L and 70 ug/L, respectively. No PAHs were detected above detection limits in the groundwater samples submitted for analysis. The following groundwater samples exhibited concentrations of metals above SLs:

- Unfiltered sample B-3-GW had a total concentration of lead of 83.4 ug/L, which exceeds the SL of 15 ug/L. However, field-filtered sample B-3-GW was below detection limits (<10.0 ug/L) for dissolved lead.
- Unfiltered sample B-7-GW had total concentrations of 56.4 ug/L of cadmium, 1,650 ug/L of chromium, and 2,790 ug/L of lead, which exceed the SLs of 5.0 ug/L, 100 ug/L, and 15 ug/L, respectively.
- Field filtered sample B-7-GW was non-detect for dissolved cadmium (<2.0 ug/L), and contained a dissolved concentration of chromium of 46.2 ug/L, which is below the chromium SL of 100 ug/L. However, the dissolved concentration of lead, 41.7 ug/L, exceeds the lead SL of 15.0 ug/L.

## 5.3 Waste Characterization Sample Results

In accordance with the INDOT SAM Manual, the groundwater results were further compared with applicable RCRA TCLP limits, which are 5 parts per million (5,000 ug/L) for both chromium and lead. Therefore, the groundwater is not hazardous waste.

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<sup>2</sup> "J-Flag" results are estimated concentrations above the adjusted method detection limit and below the adjusted reporting limit. They are considered approximate results.



In accordance with the SOW Memo, soil cuttings, purge water, and other investigative derived wastes (IDW) were containerized in 55-gallon drums and sampled. Soil and groundwater samples collected for waste characterization purposes were split into separate waste streams. Soil and groundwater from B-1 through B-4 were composite sampled and named NWS (North Waste Stream), and composite samples from B-7 and B-8 were named SWS (South Waste Stream).

VOC and Metals samples were analyzed using the TCLP, which imitates landfill conditions by adding acid to samples to determine leachability of compounds. Samples were also analyzed for pH via USEPA SW846 Method 9045, and Flashpoint via USEPA SW846 Method 1010.

Results were sent to Liquid Waste Removal (LWR), a licensed waste subcontractor, who determined that soil and groundwater analytical results indicate soil and groundwater at the project area can be classified as non-hazardous waste. Similarly, IDW produced during geotechnical drilling was containerized in 55-gallon drums and removed from site by LWR. These materials were properly disposed off-site (except for three drums that were stolen).

## 6.0 WELL ABANDONMENT

Temporary assessment wells were abandoned following sample collection in accordance with applicable regulations and INDOT's November 26, 2019 *Aquifer Protection Guidelines*.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the geophysical investigation identified "high target areas" that are likely fill mixed with construction debris. No evidence of an in-place UST system was noted. These results are further supported by the sandy/loamy fill materials encountered in soil borings advanced at the project area, which contained typical construction debris fragments that were mostly brick and concrete. A *de minimis* amount (<0.002 cubic foot) of transite-like suspect asbestos containing material was encountered in boring TB-8 at around 4 ft-bgs.

In general, soil samples submitted for laboratory analyses contained low levels of adsorbed CoCs that are indicative of past uses of the site and surrounding area which included rail, service stations, a junk yard, and a dry cleaner. None of the CoCs in soil were detected at concentrations that exceed MTG SLs, except for chromium VI (aka hexavalent chromium). The laboratory results for chromium VI ranged from <0.201 to 0.481 mg/kg, which exceed the MTG SL of 0.14 mg/kg.

- A copy of this report, including laboratory analyses, should be provided to the contractor.
- Soil generated from construction of Pier 3 to Pier 8, as well as the retaining wall, should not be handled as "clean fill". This soil should be disposed of at a municipal waste landfill as solid waste.



- The contractor should be prepared to deal with the potential for asbestos containing materials to be present in fill wastes generated during construction of the new piers, especially Pier 6, in accordance with INDOT *Standard Specifications*.
- Soil analytical results were below hazardous waste levels (RCRA), as well as IDEM construction worker SLs. The contractor will ensure that appropriate PPE is used and that all work is completed in compliance with OSHA regulations.

Similarly, groundwater samples contained relatively low levels of CoCs that are indicative of the historical urban use of the project area. This included a dissolved concentration of lead of 41.7 ug/L in field-filtered sample B-7-GW (near Pier 4), which is above the SL of 15 ug/L, but below the TCLP limit of 5,000 ug/L. Additionally, unfiltered samples contained total metals above SLs. Therefore, even though the groundwater is non-hazardous, proper handling, removal and disposal is needed.

## 8.0 REFERENCES

Code of Federal Regulations, 40 CFR §261.24, “Table 1 – Maximum Concentration of Contaminants for the Toxicity Characteristic”

(Source: [https://www.ecfr.gov/cgi-bin/text-idx?node=se40.26.261\\_124&rqn=div8](https://www.ecfr.gov/cgi-bin/text-idx?node=se40.26.261_124&rqn=div8)).

Indiana Department of Environmental Management (IDEM) Remediation Closure Guide (RCG) 2020 Screening Level Tables (Source: <https://www.in.gov/idem/cleanups/2392.htm>).

IDEM Micro-Purge Sampling Option Guidance, updated December 12, 2017.

(Source: [https://www.in.gov/idem/cleanups/files/guidance\\_sampling\\_micro-purge.pdf](https://www.in.gov/idem/cleanups/files/guidance_sampling_micro-purge.pdf))

Indiana Department of Transportation (INDOT), *Aquifer Protection Guidelines*, revised November 26, 2019 (Source: <https://www.in.gov/indot/files/AquiferGuidelines.pdf>)

INDOT Site Assessment & Management (SAM) Manual, June 2020

(Source: <https://www.in.gov/indot/2523.htm>).

INDOT 2020 *Standard Specifications*

(Source: <https://www.in.gov/dot/div/contracts/standards/book/sep19/sep.htm>)

Appendix E  
subappendix

## **TABLES**

Table 2 – VOCs, PAHs and Metals in Soil

Table 3 – VOCs, PAHs and Metals in Groundwater

Table 2. VOCs, PAHs and Metals in Soil (mg/kg)  
 US 27 Bridge Replacement  
 Des No 1702941  
 Richmond, IN

Analyte	IDEM RCG Screening Levels (SL)*				RCRA Haz Waste Determination	Sample Designation and Date														
	Soil Exposure			Ground Water		B-1 (8-10)	B-1 (14-16)	B-2 (8-10)	B-2 (14-16)	B-3 (10-12)	B-3 (18-20)	B-4 (4-6)	B-4 (12-14)	DUP-1	B-4 (18-20)	B-7(10-12)	B-7 (12-16)	B-7 (24-26)	B-8 (8-12)	B-8 (28-30)
	Direct Contact Residential (mg/kg)	Direct Contact Com/Ind (mg/kg)	Direct Contact Excavation (mg/kg)	Soil MTG Residential (mg/kg)		20 x TCLP Limit**	5/4/2020	5/4/2020	5/4/2020	5/4/2020	5/4/2020	5/4/2020	5/5/2020	5/5/2020	5/5/2020	5/5/2020	5/5/2020	5/5/2020	5/5/2020	5/5/2020
<b>VOCs</b>																				
n-Hexane	140	140	140	210	NA	0.026	<0.0051	<0.0060	<0.0045	<0.0046	<0.0042	< 0.0037	< 0.0041	< 0.0038	< 0.0038	< 0.0044	< 0.0043	< 0.0044	< 0.0044	< 0.0043
1-Methylnaphthalene	250	390	390	1.2	NA	0.023	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.0048	< 0.0054	< 0.0053	< 0.028	0.018	< 0.0054	< 0.0046	< 0.0058	< 0.0047
2-Methylnaphthalene	340	3000	6800	3.7	NA	0.028	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	0.024	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Tetrachloroethene	110	170	170	0.045	NA	<0.0038	<0.0051	<0.0060	<0.0045	<0.0046	<0.0042	< 0.0038	< 0.0037	< 0.0038	< 0.0041	0.0098	< 0.0043	< 0.0044	< 0.0043	< 0.0044
All Other VOCs	Various	Various	Various	Various		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
<b>PAHs</b>																				
Acenaphthene	5000	45000	100000	110	NE	0.018	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	< 0.0049	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Acenaphthylene	NE	NE	NE	NE	NE	0.045	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	0.013	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Anthracene	25000	100000	100000	1200	NE	0.081	<0.0054	<0.0053	<0.0054	0.0065	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	0.020	< 0.0054	0.0071	< 0.0047	< 0.0058
Benzo[a]anthracene	15	210	12000	2.1	NE	0.22	<0.0054	0.0093	<0.0054	0.010	<0.0058	0.032	< 0.0048	< 0.0053	< 0.0054	0.046	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Benzo[a]pyrene	1.5	21	500	4.7	NE	0.25	<0.0054	0.0097	<0.0054	0.012	<0.0058	0.045	< 0.0048	< 0.0053	< 0.0054	0.055	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Benzo[b]fluoranthene	15	210	12000	60	NE	0.35	<0.0054	0.013	<0.0054	0.015	<0.0058	0.059	< 0.0048	< 0.0053	< 0.0054	0.077	< 0.0054	< 0.0046	0.0055	< 0.0058
Benzo[g,h,i]perylene	NE	NE	NE	NE	NE	0.18	<0.0054	0.0056	<0.0054	0.0084	<0.0058	0.045	< 0.0048	< 0.0053	< 0.0054	0.038	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Benzo[k]fluoranthene	150	2100	100000	590	NE	0.14	<0.0054	<0.0053	<0.0054	0.0061	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	0.031	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Chrysene	1500	21000	100000	1800	NE	0.23	<0.0054	0.0098	0.0079	0.010	0.0084	0.037	0.0078	< 0.0053	< 0.0054	0.048	< 0.0054	0.0051	< 0.0047	< 0.0058
Dibenz[a,h]anthracene	1.5	21	1200	19	NE	0.048	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	0.013	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Fluoranthene	3400	30000	68000	1800	NE	0.52	<0.0054	0.021	<0.0054	0.019	<0.0058	0.069	0.0073	< 0.0053	< 0.0054	0.085	< 0.0054	0.012	0.0058	< 0.0058
Fluorene	3400	30000	68000	110	NE	0.029	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.028	< 0.0048	< 0.0053	< 0.0054	< 0.0049	< 0.0054	0.0056	< 0.0047	< 0.0058
Indeno[1,2,3cd]pyrene	15	210	12000	200	NE	0.16	<0.0054	<0.0053	<0.0054	0.0074	<0.0058	0.031	< 0.0048	< 0.0053	< 0.0054	0.032	< 0.0054	< 0.0046	< 0.0047	< 0.0058
Naphthalene	53	170	3100	0.11	NE	0.027	<0.0054	<0.0053	<0.0054	<0.0060	<0.0058	< 0.0037	< 0.0054	< 0.0038	< 0.0038	< 0.0044	< 0.0054	< 0.0044	< 0.0044	< 0.0043
Phenanthrene	NE	NE	NE	NE	NE	0.39	<0.0054	0.013	<0.0054	0.0088	0.016	0.041	0.0094	< 0.0053	< 0.0054	0.055	< 0.0054	0.015	< 0.0047	< 0.0058
Pyrene	2500	23000	51000	260	NE	0.42	<0.0054	0.017	<0.0054	0.018	<0.0058	0.059	0.012	< 0.0053	< 0.0054	0.074	< 0.0054	0.0094	0.0058	< 0.0058
<b>Metals</b>																				
Mercury	3.1	3.1	3.1	2.1	4	<0.22	<0.21	<0.21	<0.22	<0.25	<0.24	<0.22	<0.22	<0.21	<0.22	<0.21	<0.22	<0.19	<0.20	<0.22
Cadmium	NE	NE	NE	7.5	20	<0.55	<0.50	<0.50	<0.51	<0.56	<0.50	0.63	<0.53	<0.46	<0.47	<0.54	<0.48	<0.47	<0.47	0.91
Chromium	NE	NE	NE	1000000	100	12.6	7.4	6.7	7.6	18.0	10.9	10.5	10.8	4.4	9.2	7.8	9.1	15.0	6.6	15.8
Chromium VI	4.2	63	2700	0.14	NA	< 0.294	< 0.201	<0.270	< 0.266	< 0.290	< 0.207	< 0.298	< 0.283	< 0.283	< 0.282	0.481 J	< 0.280	< 0.281	< 0.281	0.402 J
Lead	400	800	1000	270	100	24.4	6.4	6.4	7.3	14.4	8.1	36.7	7.3	3.9	9.7	47.6	6.7	12.2	6.4	28.4

Notes:  
 VOCs = Volatile Organic Compounds      TCLP = Toxic Characteristic Leachate Procedure  
 PAHs = Polyaromatic Hydrocarbons  
 mg/kg = milligrams per kilogram  
 NE = Not Evaluated (No IDEM Screening Level)  
 BDL = Below Laboratory Detection Limits  
 J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit  
 IDEM = Indiana Department of Environmental Management  
 SL = Screening Level  
 MTG = Migration to Groundwater  
 Com/Ind = Commercial/Industrial  
 NA = Not Applicable  
**BDL = Analyte detection above laboratory reporting limits but below applicable IDEM RCG Screening Level**  
**Yellow highlight, bold and underline = analyte exceeds MTG SL**

\*From IDEM Remediation Closure Guide (RCG), Appendix A, Table A-6:Screening Level Summary Table (March, 2020) (www.in.gov/idem/cleanups/2392.htm)  
 \*\*From INDOT Site Assessment and Management Manual, June 2020. Section 5.2.3.1 2 (www.in.gov/indot/2523.htm)

Table 3. VOCs, PAHs and Metals in Groundwater (ug/L)  
 US 27 Bridge Replacement  
 Des No 1702941  
 Richmond, IN

Analyte	IDEM RCG Screening Levels (SL)*		Sample Designation and Date		
	IDEM RCG Groundwater Tap Residential (ug/L)	RCRA Haz Waste Determination	B-3-GW	B-4-GW	B-7-GW
			TCLP Limit (ug/L)	5/6/2020	5/6/2020
<b>VOCs</b>					
Chloroform	<b>80</b>	<b>6,000</b>	<b>24.4</b>	<5.0	<5.0
cis-1,2-Dichloroethene	<b>70</b>	<b>NA</b>	<5.0	<b>11.4</b>	<5.0
All Other VOCs	Various		BDL	BDL	BDL
<b>PAHs</b>					
All PAHs	Various		BDL	BDL	BDL
<b>Dissolved Metals</b>					
Cadmium	<b>5</b>	<b>1,000</b>	<2.0	<2.0	<b>56.4</b>
Cadmium (Dissolved)	<b>5</b>	<b>1,000</b>	<2.0	<2.0	<2.0
Chromium	<b>100</b>	<b>5,000</b>	<b>77.8</b>	<10.0	<b>1650</b>
Chromium (Dissolved)	<b>100</b>	<b>5,000</b>	<10.0	<10.0	<b>46.2</b>
Lead	<b>15</b>	<b>5,000</b>	<b>83.4</b>	<10.0	<b>2790</b>
Lead (Dissolved)	<b>15</b>	<b>5,000</b>	<10.0	<10.0	<b>41.7</b>
Mercury	<b>2</b>	<b>200</b>	<2.0	<2.0	<2.0
Mercury (Dissolved)	<b>2</b>	<b>200</b>	<2.0	<2.0	<2.0

Notes:

VOCs = Volatile Organic Compounds

PAHs = Polyaromatic Hydrocarbons

ug/L = Micrograms per liter

NE = Not Evaluated (No IDEM Screening Level)

BDL = Below Laboratory Detection Limits

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

IDEM = Indiana Department of Environmental Management

SL = Screening Level

RTGW = Residential Tap Groundwater

Com/Ind = Commercial/Industrial

NA = Not Applicable

**BDL = Analyte detection above laboratory reporting limits but below applicable IDEM RCG Screening Level**

**Yellow highlight, bold and underline = analyte exceeds RTGW SL**

\*From IDEM Remediation Closure Guide (RCG), Appendix A, Table A-6: Screening Level Summary Table (March, 2020) ([www.in.gov/idem/cleanups/2392.htm](http://www.in.gov/idem/cleanups/2392.htm))

\*\*From INDOT Site Assessment and Management Manual, June 2020, Section 5.2.3.1.2 ([www.in.gov/indot/2523.htm](http://www.in.gov/indot/2523.htm))

Appendix E  
subappendix

## **APPENDIX A – GENERAL EXHIBITS**

Exhibit 1 – Project Location Map

Exhibit 2 – Soil Analytical Results Map

Exhibit 3 – Groundwater Analytical Results Map

Refer to  
Appendix B for  
the Project  
Location Map.



B-1		8 - 10' BGS	14 - 16' BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>VOCS</b>			
n-Hexane	210	0.026	<0.0051
1-Methylnaphthalene	1.2	0.023	<0.0054
2-Methylnaphthalene	3.7	0.028	<0.0054
Tetrachloroethene	0.045	<0.0038	<0.0051
<b>PAHS</b>			
Acenaphthene	110	0.018	<0.0054
Acenaphthylene	NE	0.045	<0.0054
Anthracene	1200	0.081	<0.0054
Benz[a]anthracene	2.1	0.22	<0.0054
Benz[a]pyrene	4.7	0.25	<0.0054
Benz[b]fluoranthene	60	0.35	<0.0054
Benz[g,h,i]perylene	NE	0.18	<0.0054
Benz[k]fluoranthene	590	0.14	<0.0054
Chrysene	1800	0.23	<0.0054
Dibenz[a,h]anthracene	19	0.048	<0.0054
Fluoranthene	1800	0.52	<0.0054
Fluorene	110	0.029	<0.0054
Indeno[1,2,3cd]pyrene	200	0.16	<0.0054
Naphthalene	0.11	0.027	<0.0054
Phenanthrene	NE	0.39	<0.0054
Pyrene	260	0.42	<0.0054
<b>Metals</b>			
Chromium	1000000	12.6	7.4
Chromium VI	0.14	< 0.294	< 0.201
Lead	270	24.4	6.4

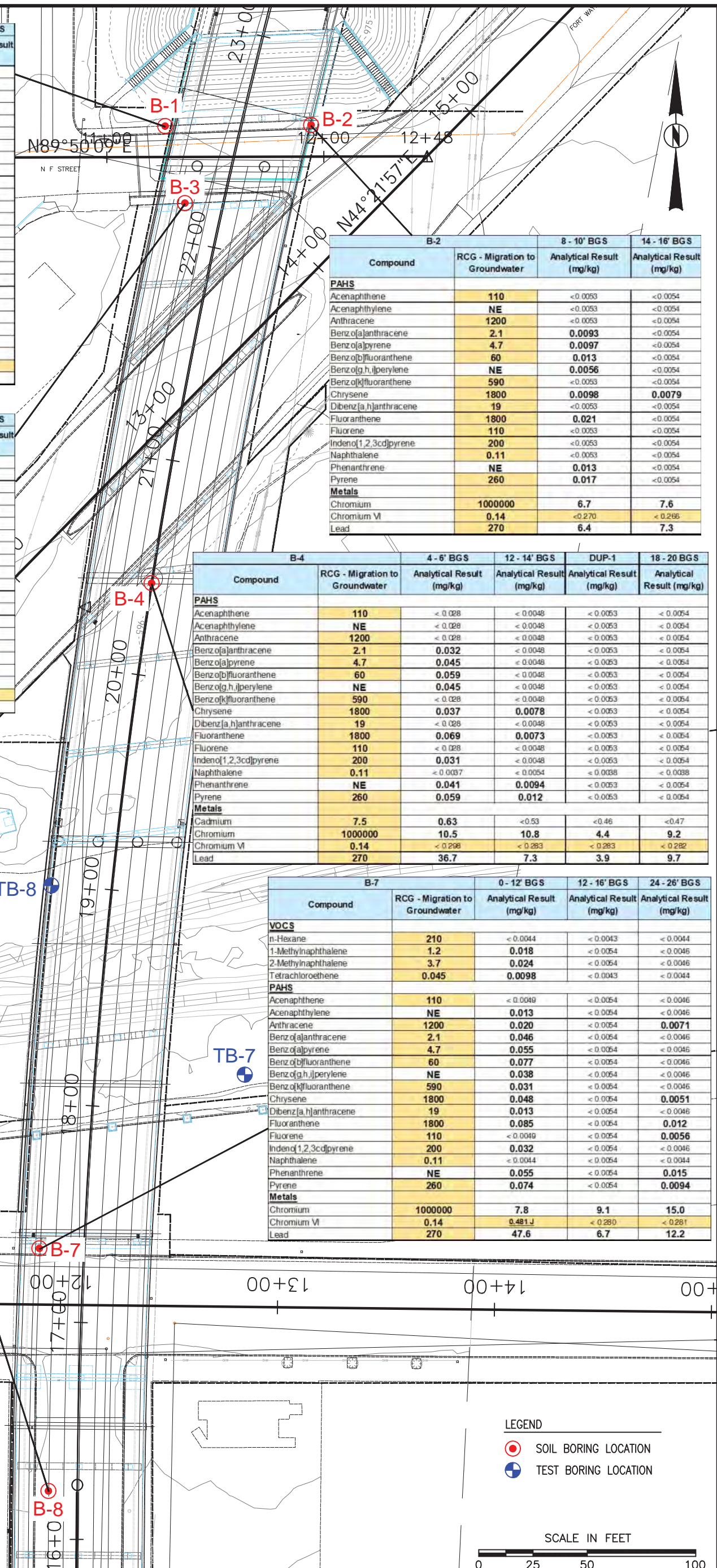
B-3		10 - 12' BGS	18 - 20' BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>PAHS</b>			
Acenaphthene	110	<0.0060	<0.0058
Acenaphthylene	NE	<0.0060	<0.0058
Anthracene	1200	0.0065	<0.0058
Benz[a]anthracene	2.1	0.010	<0.0058
Benz[a]pyrene	4.7	0.012	<0.0058
Benz[b]fluoranthene	60	0.015	<0.0058
Benz[g,h,i]perylene	NE	0.0084	<0.0058
Benz[k]fluoranthene	590	0.0061	<0.0058
Chrysene	1800	0.010	0.0084
Dibenz[a,h]anthracene	19	<0.0060	<0.0058
Fluoranthene	1800	0.019	<0.0058
Fluorene	110	<0.0060	<0.0058
Indeno[1,2,3cd]pyrene	200	0.0074	<0.0058
Naphthalene	0.11	<0.0060	<0.0058
Phenanthrene	NE	0.0088	0.016
Pyrene	260	0.018	<0.0058
<b>Metals</b>			
Chromium	1000000	18.0	10.9
Chromium VI	0.14	< 0.290	< 0.207
Lead	270	14.4	8.1

B-2		8 - 10' BGS	14 - 16' BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>PAHS</b>			
Acenaphthene	110	<0.0053	<0.0054
Acenaphthylene	NE	<0.0053	<0.0054
Anthracene	1200	<0.0053	<0.0054
Benz[a]anthracene	2.1	0.0093	<0.0054
Benz[a]pyrene	4.7	0.0097	<0.0054
Benz[b]fluoranthene	60	0.013	<0.0054
Benz[g,h,i]perylene	NE	0.0056	<0.0054
Benz[k]fluoranthene	590	<0.0053	<0.0054
Chrysene	1800	0.0098	0.0079
Dibenz[a,h]anthracene	19	<0.0053	<0.0054
Fluoranthene	1800	0.021	<0.0054
Fluorene	110	<0.0053	<0.0054
Indeno[1,2,3cd]pyrene	200	<0.0053	<0.0054
Naphthalene	0.11	<0.0053	<0.0054
Phenanthrene	NE	0.013	<0.0054
Pyrene	260	0.017	<0.0054
<b>Metals</b>			
Chromium	1000000	6.7	7.6
Chromium VI	0.14	<0.270	<0.266
Lead	270	6.4	7.3

B-4		4 - 6' BGS	12 - 14' BGS	DUP-1	18 - 20 BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>PAHS</b>					
Acenaphthene	110	< 0.028	< 0.0048	< 0.0053	< 0.0054
Acenaphthylene	NE	< 0.028	< 0.0048	< 0.0053	< 0.0054
Anthracene	1200	< 0.028	< 0.0048	< 0.0053	< 0.0054
Benz[a]anthracene	2.1	0.032	< 0.0048	< 0.0053	< 0.0054
Benz[a]pyrene	4.7	0.045	< 0.0048	< 0.0053	< 0.0054
Benz[b]fluoranthene	60	0.059	< 0.0048	< 0.0053	< 0.0054
Benz[g,h,i]perylene	NE	0.045	< 0.0048	< 0.0053	< 0.0054
Benz[k]fluoranthene	590	< 0.028	< 0.0048	< 0.0053	< 0.0054
Chrysene	1800	0.037	0.0078	< 0.0053	< 0.0054
Dibenz[a,h]anthracene	19	< 0.028	< 0.0048	< 0.0053	< 0.0054
Fluoranthene	1800	0.069	0.0073	< 0.0053	< 0.0054
Fluorene	110	< 0.028	< 0.0048	< 0.0053	< 0.0054
Indeno[1,2,3cd]pyrene	200	0.031	< 0.0048	< 0.0053	< 0.0054
Naphthalene	0.11	< 0.0037	< 0.0054	< 0.0038	< 0.0038
Phenanthrene	NE	0.041	0.0094	< 0.0053	< 0.0054
Pyrene	260	0.059	0.012	< 0.0053	< 0.0054
<b>Metals</b>					
Cadmium	7.5	0.63	<0.53	<0.46	<0.47
Chromium	1000000	10.5	10.8	4.4	9.2
Chromium VI	0.14	< 0.298	< 0.283	< 0.283	< 0.282
Lead	270	36.7	7.3	3.9	9.7

B-7		0 - 12' BGS	12 - 16' BGS	24 - 26' BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>VOCS</b>				
n-Hexane	210	< 0.0044	< 0.0043	< 0.0044
1-Methylnaphthalene	1.2	0.018	< 0.0054	< 0.0046
2-Methylnaphthalene	3.7	0.024	< 0.0054	< 0.0046
Tetrachloroethene	0.045	0.0098	< 0.0043	< 0.0044
<b>PAHS</b>				
Acenaphthene	110	< 0.0040	< 0.0054	< 0.0046
Acenaphthylene	NE	0.013	< 0.0054	< 0.0046
Anthracene	1200	0.020	< 0.0054	0.0071
Benz[a]anthracene	2.1	0.046	< 0.0054	< 0.0046
Benz[a]pyrene	4.7	0.055	< 0.0054	< 0.0046
Benz[b]fluoranthene	60	0.077	< 0.0054	< 0.0046
Benz[g,h,i]perylene	NE	0.038	< 0.0054	< 0.0046
Benz[k]fluoranthene	590	0.031	< 0.0054	< 0.0046
Chrysene	1800	0.048	< 0.0054	0.0051
Dibenz[a,h]anthracene	19	0.013	< 0.0054	< 0.0046
Fluoranthene	1800	0.085	< 0.0054	0.012
Fluorene	110	< 0.0040	< 0.0054	0.0056
Indeno[1,2,3cd]pyrene	200	0.032	< 0.0054	< 0.0046
Naphthalene	0.11	< 0.0044	< 0.0054	< 0.0044
Phenanthrene	NE	0.055	< 0.0054	0.015
Pyrene	260	0.074	< 0.0054	0.0094
<b>Metals</b>				
Chromium	1000000	7.8	9.1	15.0
Chromium VI	0.14	0.481 J	< 0.280	< 0.281
Lead	270	47.6	6.7	12.2

B-8		8 - 12' BGS	28 - 30' BGS
Compound	RCG - Migration to Groundwater	Analytical Result (mg/kg)	Analytical Result (mg/kg)
<b>PAHS</b>			
Acenaphthene	110	< 0.0047	< 0.0058
Acenaphthylene	NE	< 0.0047	< 0.0058
Anthracene	1200	< 0.0047	< 0.0058
Benz[a]anthracene	2.1	< 0.0047	< 0.0058
Benz[a]pyrene	4.7	< 0.0047	< 0.0058
Benz[b]fluoranthene	60	0.0055	< 0.0058
Benz[g,h,i]perylene	NE	< 0.0047	< 0.0058
Benz[k]fluoranthene	590	< 0.0047	< 0.0058
Chrysene	1800	< 0.0047	< 0.0058
Dibenz[a,h]anthracene	19	< 0.0047	< 0.0058
Fluoranthene	1800	0.0058	< 0.0058
Fluorene	110	< 0.0047	< 0.0058
Indeno[1,2,3cd]pyrene	200	< 0.0047	< 0.0058
Naphthalene	0.11	< 0.0044	< 0.0043
Phenanthrene	NE	< 0.0047	< 0.0058
Pyrene	260	0.0058	< 0.0058
<b>Metals</b>			
Cadmium	7.5	<0.47	0.91
Chromium	1000000	6.6	15.8
Chromium VI	0.14	< 0.281	0.402 J
Lead	270	6.4	28.4



LEGEND  
 ● SOIL BORING LOCATION  
 ⊕ TEST BORING LOCATION

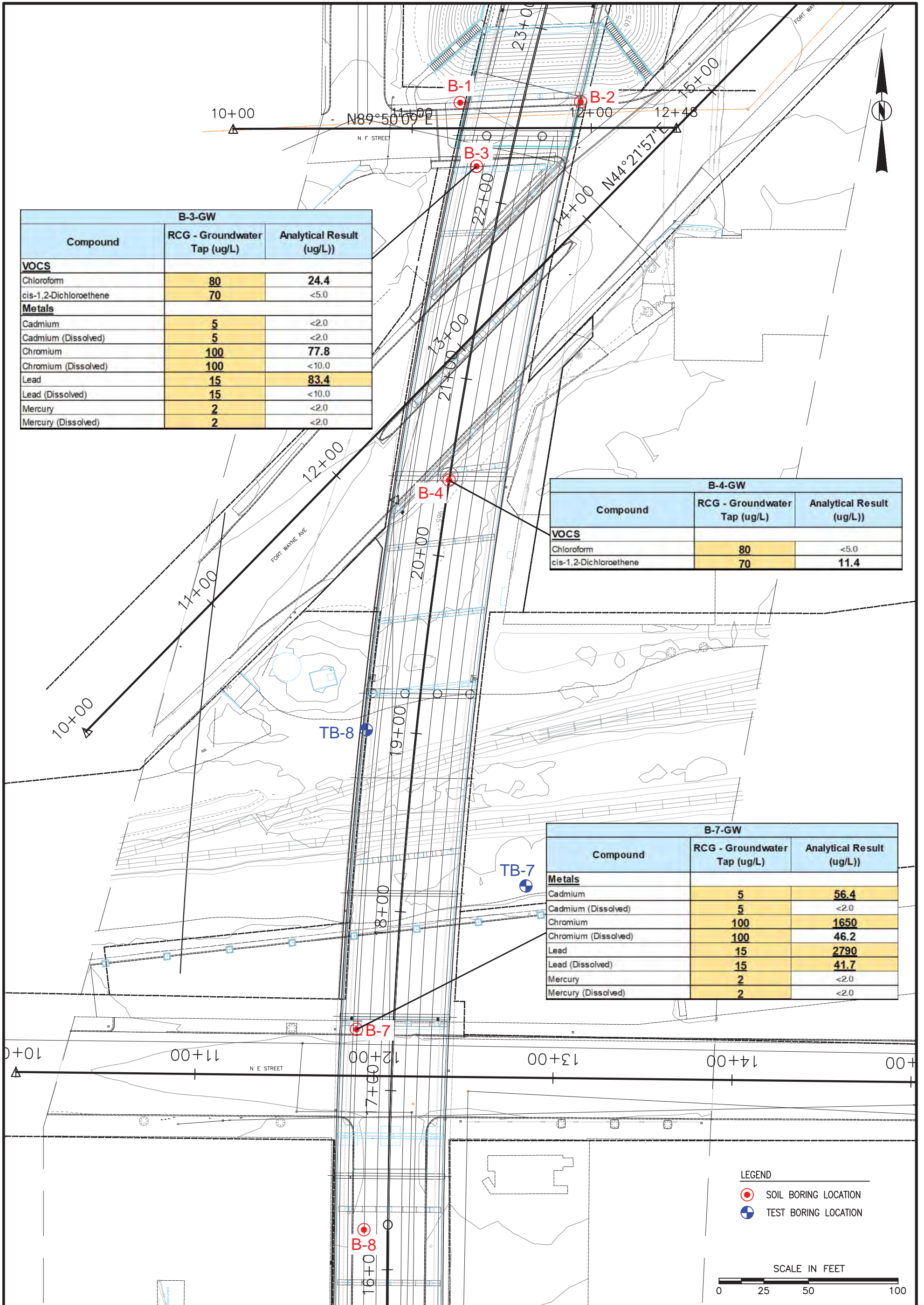


CHECK BY MJR  
 DRAWN BY OS  
 DATE 12-22-20  
 SCALE AS SHOWN  
 CAD NO. CJ187096B  
 PRJ NO. CJ187096

SOIL ANALYTICAL RESULTS  
 US 27 BRIDGE REPLACEMENT  
 RICHMOND, INDIANA



EXHIBIT  
 2



B-3-GW		
Compound	RCG - Groundwater Tap (ug/L)	Analytical Result (ug/L)
<b>VOCS</b>		
Chloroform	80	24.4
cis-1,2-Dichloroethene	70	<5.0
<b>Metals</b>		
Cadmium	5	<2.0
Cadmium (Dissolved)	5	<2.0
Chromium	100	77.8
Chromium (Dissolved)	100	<10.0
Lead	15	83.4
Lead (Dissolved)	15	<10.0
Mercury	2	<2.0
Mercury (Dissolved)	2	<2.0

B-4-GW		
Compound	RCG - Groundwater Tap (ug/L)	Analytical Result (ug/L)
<b>VOCS</b>		
Chloroform	80	<5.0
cis-1,2-Dichloroethene	70	11.4

B-7-GW		
Compound	RCG - Groundwater Tap (ug/L)	Analytical Result (ug/L)
<b>Metals</b>		
Cadmium	5	56.4
Cadmium (Dissolved)	5	<2.0
Chromium	100	1650
Chromium (Dissolved)	100	46.2
Lead	15	2790
Lead (Dissolved)	15	41.7
Mercury	2	<2.0
Mercury (Dissolved)	2	<2.0

LEGEND  
 SOIL BORING LOCATION  
 TEST BORING LOCATION



CHECK BY	MJR
DRAWN BY	OS
DATE	12-22-20
SCALE	AS SHOWN
CAD NO.	CJ187096B
PRJ NO.	CJ187096

GROUNDWATER ANALYTICAL RESULTS  
 US 27 BRIDGE REPLACEMENT  
 RICHMOND, INDIANA



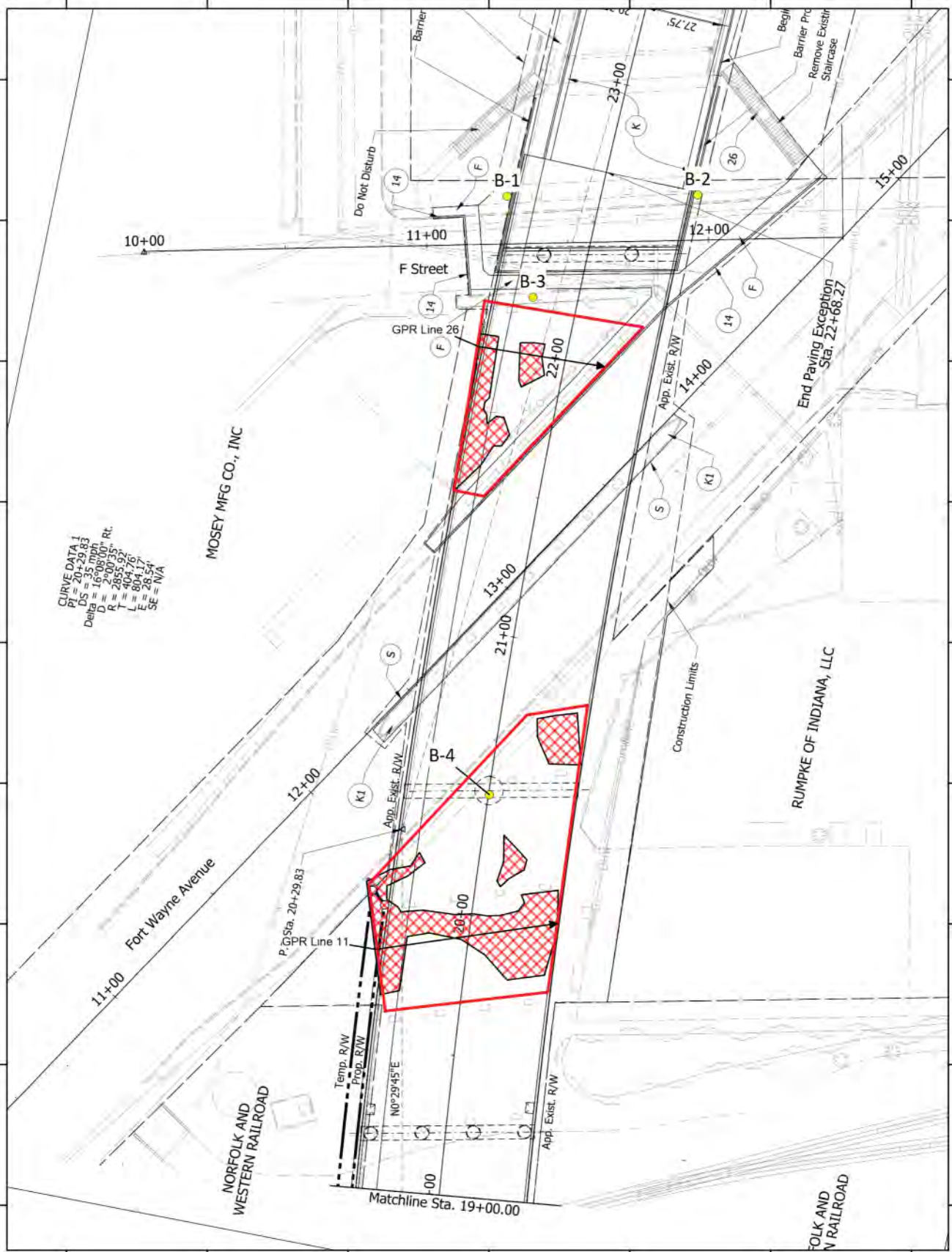
EXHIBIT  
 3

Appendix E  
subappendix




## **APPENDIX B– GEOPHYSICAL EXHIBITS**

Exhibit 4 – Geophysical Site Map

Exhibit 5 – Selected GPR Profiles



**Legend**

-  B-1 Direct push boring location and designation (separate investigation)
-  GPR Survey Area
-  High target/anomalous area

**Notes**

1. Map developed by georeferencing preliminary plans provided by Parsons.
2. Georeference points collected by EEI using a total station system and is limited to the accuracy of this method.
3. Map Scale: 1" = 50'

**Exhibit 4 - Geophysical Site Map**

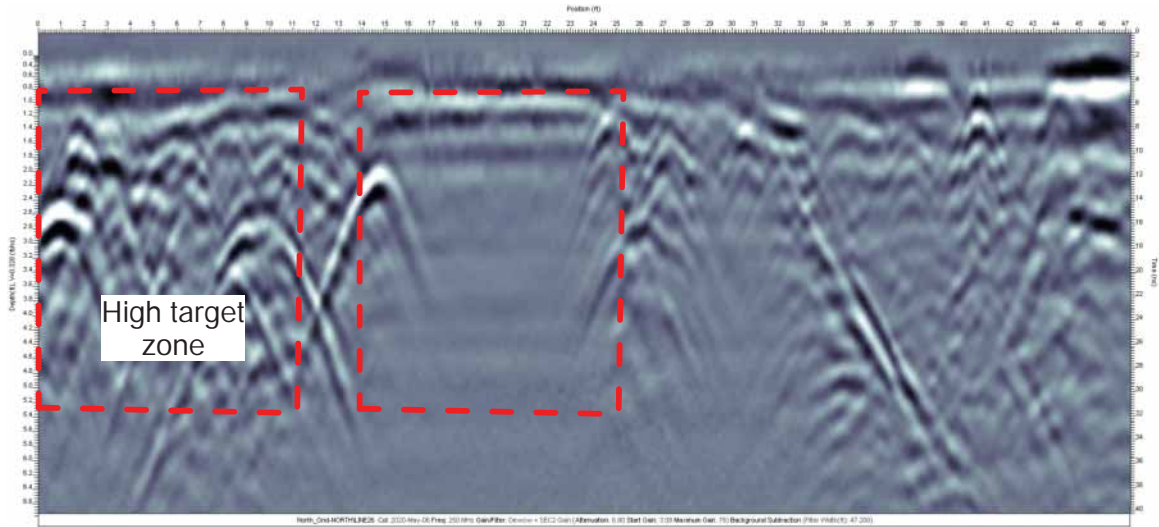
Project: US 27 Bridge Replacement  
 Location: Richmond, IN  
 Client: Parsons Transportation Group  
 Project No.: CJ187096  
 Date: December 14, 2020



West

North Grid - GPR Line 26

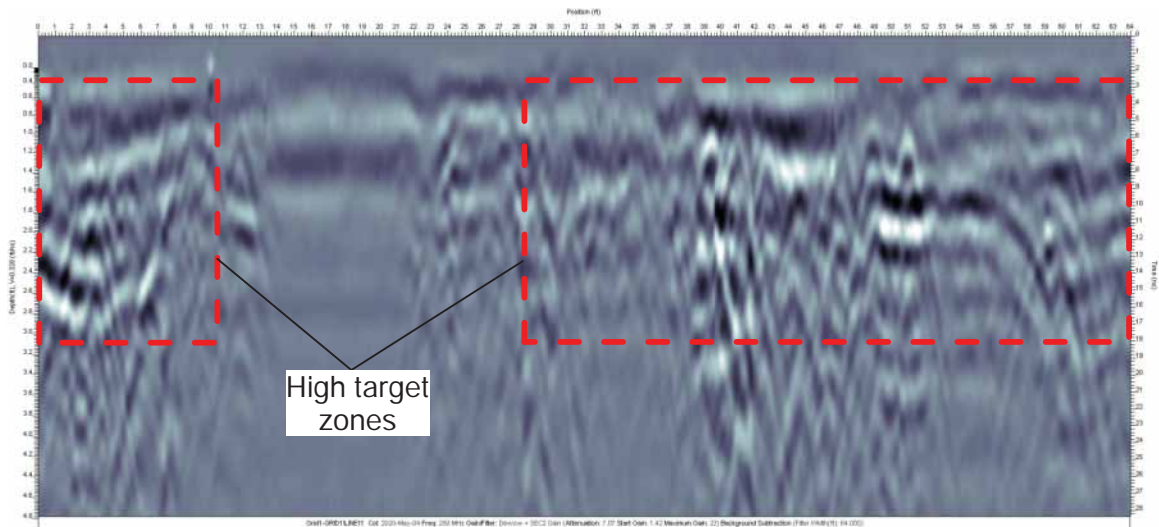
East




West

South Grid - GPR Line 11

East



Legend	Notes	Exhibit 5 - Selected GPR Profiles
	<p>1. Profiles not to scale.                      2. Depth shown on profiles not calibrated and should be considered an estimate.</p>	<p>Project: US 27 Bridge Replacement                      Location: Richmond, IN                      Client: Parsons Transportation Group                      Project No.: CJ187096                      Date: December 14, 2020</p> 

Appendix E  
subappendix

## **APPENDIX C – SOIL BORING LOGS**

# BORING LOG NO. B-1

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>TOPSOIL</b> , brown, (6 in)					
2.5	<b>SANDY GRAVELLY CLAY</b> , 2.5 Y 3/1, dry, (fill)				80	0.3
5.0		5			30	0.4 0.3
8.0	black, wet, Brick fragments			✋	30	8.9
12.0	<b>SILTY CLAY</b> , 2.5 Y 3/1, moist				100	0.9 0.6
14.0	<b>CLAY</b> , gray to 5 Y 4/1, moist					
16.0	<b>Boring Terminated at 16 Feet</b>	15		✋		0.3

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Direct Push

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

**WATER LEVEL OBSERVATIONS**  
*No water encountered during drilling.*  
*No water encountered at completion of drilling.*



7770 W New York St  
Indianapolis, IN

Notes:  
Soil boring logged by Matt Robey, LPG

Boring Started: 05-04-2020	Boring Completed: 05-04-2020
Drill Rig: Geoprobe 7822 DT	Driller: C.H.
Project No.: CJ187096	Exhibit: B-1

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_CJ187096.GPJ TERRACON DATATEMPLATE.GDT 2/24/21

# BORING LOG NO. B-2

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>TOPSOIL</b> , (6 in)					
	<b>SAND WITH GRAVEL</b> , 2.5 Y 3/1				70	0.4
6.0	<b>CLAYEY SAND</b> , 2.5 Y 4/2, moist	5			60	0.5 0.3
10.0	<b>SANDY GRAVEL</b> , 2.5 Y 3/1, wet	10		☞	30	1.3
12.0	<b>SILTY CLAY</b> , gray to 2.5 Y 4/2, dry				30	0.3 0.5
16.0	<b>Boring Terminated at 16 Feet</b>	15		☞		0.8

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Direct Push

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

**WATER LEVEL OBSERVATIONS**  
*No water encountered during drilling.*  
*No water encountered at completion of drilling.*

Notes:  
Soil boring logged by Matt Robey, LPG



Boring Started: 05-04-2020	Boring Completed: 05-04-2020
Drill Rig: Geoprobe 7822 DT	Driller: C.H.
Project No.: CJ187096	Exhibit: B-2

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_CJ187096.GPJ TERRACON\_DATATEMPLATE.GDT 2/24/21



# BORING LOG NO. B-3

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_CJ187096.GPJ TERRACON\_DATATEMPLATE.GDT 2/24/21

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>CONCRETE</b> , (6 in)					
	<b>SANDY FILL</b> , 2.5 Y 4/1, moist at 6 ft, (sandy fill)	5			80	0.6 0.2
9.0						
10.0	<b>CLAY</b> , (with ash fill)			Hand	30	0.6 0.4
11.5	<b>GRAVELLY SAND</b> , 2.5 Y 3/1, wet				85	0.5 1.5
	<b>SILTY CLAY</b> , gray to 5 Y 4/1, wet seam at 17 ft	15	▽		100	0.5 0.4
19.0				Hand		
20.0	<b>DOLOMITE</b> , gray to 3 Y 4/1				100	0.4 0.2
22.5	<b>WEATHERED SHALE</b>	20				
	<b>Boring Terminated at 22.5 Feet</b>					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Direct Push

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

**WATER LEVEL OBSERVATIONS**

▽ At completion of drilling.

Notes:  
Soil boring logged by Matt Robey, LPG



Boring Started: 05-04-2020	Boring Completed: 05-04-2020
Drill Rig: Geoprobe 7822 DT	Driller: C.H.
Project No.: CJ187096	Exhibit: B-3

# BORING LOG NO. B-4

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL\_CJ187096.GPJ TERRACON DATATEMPLATE.GDT 2/24/21

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>CONCRETE</b> , (6 in) (brick, sand and clay fill)				40	14.3 18.1
5.0	<b>GRAVELLY SAND</b> , 2.5 Y 3/1, dry, moist to wet sandy gravel seam at 12.5 ft, (fill)	5			80	19.2
12.5	<b>CLAY</b> , brown to 7.5 YR 4/6, dry		▽		70	18.8 3.9
14.0	<b>CLAY</b> , gray to 2.5 Y 3/1, dry				100	7.2
17.0	gray to 5 Y 3/1, (weathered rock and silt)				100	4.5
19.0	<b>SILT</b> , 5 Y 3/1, moist					
20.0	<b>Boring Terminated at 20.2 Feet</b>	20				8.2

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Direct Push		Notes: Soil boring logged by Matt Robey, LPG
Abandonment Method: Boring backfilled with bentonite chips upon completion.		
<b>WATER LEVEL OBSERVATIONS</b>		Boring Started: 05-04-2020 Boring Completed: 05-04-2020
▽ At completion of drilling.	7770 W New York St Indianapolis, IN	Drill Rig: Geoprobe 7822 DT Driller: C.H.
	Project No.: CJ187096	Exhibit: B-4

# BORING LOG NO. B-7

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - CJ187096.GPJ TERRACON DATATEMPLATE.GDT 2/24/21

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>CONCRETE</b> , (6 in)					
	<b>SAND AND CLAY</b> , (fill)				40	17.5 18.1
5					0	
10			☞			18.5
12.0	<b>SANDY GRAVEL</b> , 7.5 Y 4/6, wet		▽		20	18.5 20.0
15.0	<b>CLAY</b> , gray to 5 Y 3/1, dry to 17.5 ft, moist to 18.5 ft, with sand and silt seam near 18.5 ft, lithic fragments throughout interval			☞	80	20.7
20					100	19.2 17.8
25					100	3.1 3.0
24.5	<b>GRAVEL</b> , brown, wet				100	2.2
25.5	<b>CLAY</b> , greenish gray to 5 Y 3/3					
26.0	<b>Boring Terminated at 26 Feet</b>					1.5

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:  
Direct Push

Abandonment Method:  
Boring backfilled with bentonite chips upon completion.

**WATER LEVEL OBSERVATIONS**

▽ At completion of drilling.

Notes:  
Soil boring logged by Matt Robey, LPG



Boring Started: 05-04-2020	Boring Completed: 05-04-2020
Drill Rig: Geoprobe 7822 DT	Driller: C.H.
Project No.: CJ187096	Exhibit: B-7

# BORING LOG NO. B-8

**PROJECT: US 27**

**CLIENT: Parsons**

**SITE: Wayne Co.  
Richmond, IN**

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL - CJ187096.GPJ TERRACON DATATEMPLATE.GDT 2/24/21

GRAPHIC LOG	LOCATION See Exhibit 2	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID
	DEPTH					
0.5	<b>ASPHALT</b> , (6 in)					
1.0	<b>GRAVEL</b> , black, (6 in)				60	8.7
	<b>SAND</b> , yellow, (fill)				30	3.0
4.5	<b>SAND</b> , brown, (fill)	5				
10.0	<b>CLAY</b> , brown, (fill)	10	☞			0.1
12.0	<b>SANDY GRAVEL</b> , brown, wet				5	0.1
15.5	<b>CLAY</b> , brown	15	▽		40	0.4
16.0	<b>CLAY</b> , gray, dry				100	1.0
20.5	<b>CLAY</b> , gray, dry	20			80	1.8
27.5	<b>SAND</b> , gray	25			100	1.3
28.0	<b>SAND</b> , brown					1.7
29.5	<b>Rock Refusal at 29.5 ft at 29.5 Feet</b>					0.0

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Direct Push		Notes: Soil boring logged by Matt Robey, LPG
Abandonment Method: Boring backfilled with bentonite chips upon completion.		
<b>WATER LEVEL OBSERVATIONS</b>		Boring Started: 05-04-2020 Boring Completed: 05-04-2020
▽ At completion of drilling.	7770 W New York St Indianapolis, IN	Drill Rig: Geoprobe 7822 DT Driller: C.H.
		Project No.: CJ187096 Exhibit: B-8



# LOG OF TEST BORING

BORING NO.: **TB-7**  
 SHEET 1 OF 2  
 LATITUDE : 39.83479  
 LONGITUDE : -84.89008  
 DATUM : WGS 84  
 DATE STARTED : 08-12-20  
 DATE COMPLETED : 08-12-20

CLIENT : Parsons Transportation Group, Inc.  
 DES NO. : 1702941 STRUCTURE # 027-89-02814

PROJECT TYPE: Bridge Replacement  
 LOCATION : US 27 over NS and Five Streets  
 COUNTY : Wayne PROJECT NO.: CJ185673

ELEVATION : 966.0 BORING METHOD : Hollow Stem Auger HAMMER : Auto  
 STATION : 18+04 RIG TYPE : CME 750 ATV DRILLER/INSP : D.C. / N.C.  
 OFFSET : 37.0 ft Right CASING DIA. : --- TEMPERATURE : 70 °F  
 LINE : 'PR-C-3' CORE SIZE : --- WEATHER : Sunny  
 DEPTH : 68.0 ft

GROUNDWATER:  Encountered at 10.5 ft  At completion 14.0 ft  Caved in at 17.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
965.0	2.5	Sandy Gravel, very dense, moist, brown, with limestone and concrete fragments, (fill), A-1-a, Lab No. 28470	SS 1	50/5	83								1.4, Auger refusal near 1.4 ft, boring offset
	5.0	Sandy Loam, medium stiff, moist, dark brown to black, with limestone fragments, (fill), A-2-6, Lab No. 28468	SS 2	8-6-4	33	11.6 11.8		1.25 0.5					
960.0	7.5	Gravelly Sand, dense to medium dense, moist, brown, with sandy gravel seam near 7 ft, with limestone fragments, A-2-4, Lab No. 28474	SS 3	15-19-13	67								
	10.0		SS 4	13-15-15	67								
955.0	12.5	Sandy Gravel, loose, wet, brown, A-1-a, Lab No. 28470	SS 5	11-4-4	67								
	15.0	Loam, hard, moist, brown to gray below 16 ft, with sandy gravel seam near 17 ft, with sand seam near 21.5 ft, A-4, Lab No. 28471	SS 6	11-24-28	67	14.2 8.3		>4.5					
950.0	17.5		SS 7	17-28-50/5	71	12.1		0.75					
	20.0		SS 8	27-34-46	67	13.8 16.1		1.25					
945.0	22.5		SS 9	17-50/3	83	9.6 9.5	133.2	>4.5					
	25.0		SS 10	36-48-50	44	9.4 10.4	122.0	3.75					
940.0	27.5	Fractured limestone with clay seams	SS 11	17-50/1	97	7.7		>4.5					
	28.0		SS 12	50/1	83								
935.0	30.0	Limestone with Interbedded Shale, hard, gray, low bedding planes, weathered near 50 ft, with soft shale bands near 55 ft, 57 ft and 66 ft	RC 1		98	9.7 9.1		1.5					
	32.5		RQD=22%						193				
	35.0		RC										

Continued on next page

EEL BORING LOG (INDOT FORMAT) LAT.,LONG. CJ185673 GOOD FILE.GPJ IN\_DOT1.GDT 12/2/20



# LOG OF TEST BORING

CLIENT : Parsons Transportation Group, Inc.  
 DES NO. : 1702941 STRUCTURE #. 027-89-02814

BORING NO.: TB-7  
 SHEET 2 OF 2  
 LATITUDE : 39.83479  
 LONGITUDE : -84.89008  
 DATUM : WGS 84

PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
930.0		Limestone with Interbedded Shale, hard, gray, low bedding planes, weathered near 50 ft, with soft shale bands near 55 ft, 57 ft and 66 ft	RC 2 RQD=27%		100				248				
925.0			RC 3 RQD=42%		100				386				
920.0			RC 4 RQD=63%		100				298				
915.0			RC 5 RQD=22%		100				265				
910.0			RC 6 RQD=53%		100				304				
905.0			RC 7 RQD=75%		100				483				
900.0			RC 8 RQD=27%		100				407				
895.0			Bottom of Boring at 68.0 ft Auger refusal at 28.6 ft										

EEL BORING LOG (INDOT FORMAT) LAT./LONG. CJ185673 GOOD FILE.GPJ IN\_DOT1.GDT 12/2/20



# LOG OF TEST BORING

BORING NO.: **TB-8**  
 SHEET 1 OF 2  
 LATITUDE : 39.83506  
 LONGITUDE : -84.89036  
 DATUM : WGS 84  
 DATE STARTED : 08-13-20  
 DATE COMPLETED : 08-13-20

CLIENT : Parsons Transportation Group, Inc.  
 DES NO. : 1702941 STRUCTURE # : 027-89-02814

PROJECT TYPE : Bridge Replacement  
 LOCATION : US 27 over NS and Five Streets  
 COUNTY : Wayne PROJECT NO.: CJ185673

ELEVATION : <u>967.0</u>	BORING METHOD : <u>Hollow Stem Auger</u>	HAMMER : <u>Auto</u>
STATION : <u>18+99</u>	RIG TYPE : <u>CME 750 ATV</u>	DRILLER/INSP : <u>D.C. / N.C.</u>
OFFSET : <u>28.0 ft Left</u>	CASING DIA. : <u>---</u>	TEMPERATURE : <u>70 °F</u>
LINE : <u>'PR-C-3'</u>	CORE SIZE : <u>---</u>	WEATHER : <u>Sunny</u>
DEPTH : <u>69.0 ft</u>		

GROUNDWATER:  Encountered at 14.0 ft  At completion 15.0 ft  Caved in at 18.3 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
965.0	2.5	<b>Sandy Loam</b> , medium stiff, moist, dark brown, with brick fragments and copper wire, (fill; visual)	SS 1	2-3-5	89	14.5 14.5		1.5 0.25					
	4.5												
	5.0	<b>Sandy Clay Loam</b> , medium stiff, moist, dark brown to black, with clay loam seam near 5 ft, A-7-6, Lab No. 28473	SS 2	2-2-4	89	15.1 21.1		1.75 2.25					
960.0	7.5		SS 3	4-5-5	50			0.75					
	10.0	<b>Gravelly Sand</b> , loose to dense, moist, brown, A-2-4, Lab No. 28474	SS 4	7-8-8	50			1.75					
955.0	12.5		SS 5	14-24-16	89			1.5					
	15.0		SS 6	18-16-18	89	17.0 10.2		3.75					
950.0	17.5	<b>Loam</b> , hard, moist, brown to gray below 17 ft, with gravel throughout, with clay loam seams near 23 ft and 29 ft, with limestone fragments near 29 ft, A-4, Lab No. 28471	SS 7	13-33-50/5	54	14.4 6.8	136.9	>4.5					
	20.0		SS 8	12-35-50/5	54	15.0 7.0 7.2		>4.5					
945.0	22.5		SS 9	16-37-50/3	58	11.5 12.2		2.0					
	25.0		SS 10	50/2	83	15.0 10.4		2.25					
940.0	27.5	<b>Fractured and Weathered Limestone</b> , with clay seams	SS 11	50/5	83	12.5 9.0		0.5					
	29.0		SS 12	50/4	83	11.0							
935.0	32.5	<b>Limestone with Interbedded Shale</b> , hard, gray, low bedding planes, weathered near 30 ft, 32.5 ft and 36 ft, with soft shale band near 52.5 ft, with quartz vugs near 56.5 ft and 67 ft	RC 1 RQD=7%		100								
	35.0												

EEL BORING LOG (INDOT FORMAT) LAT./LONG. CJ185673 GOOD FILE.GPJ IN\_DOT1.GDT 12/2/20

Continued on next page



# LOG OF TEST BORING

CLIENT : Parsons Transportation Group, Inc.  
 DES NO. : 1702941 STRUCTURE #. 027-89-02814

BORING NO.: TB-8  
 SHEET 2 OF 2  
 LATITUDE : 39.83506  
 LONGITUDE : -84.89036  
 DATUM : WGS 84

PROJECT TYPE: Bridge Replacement

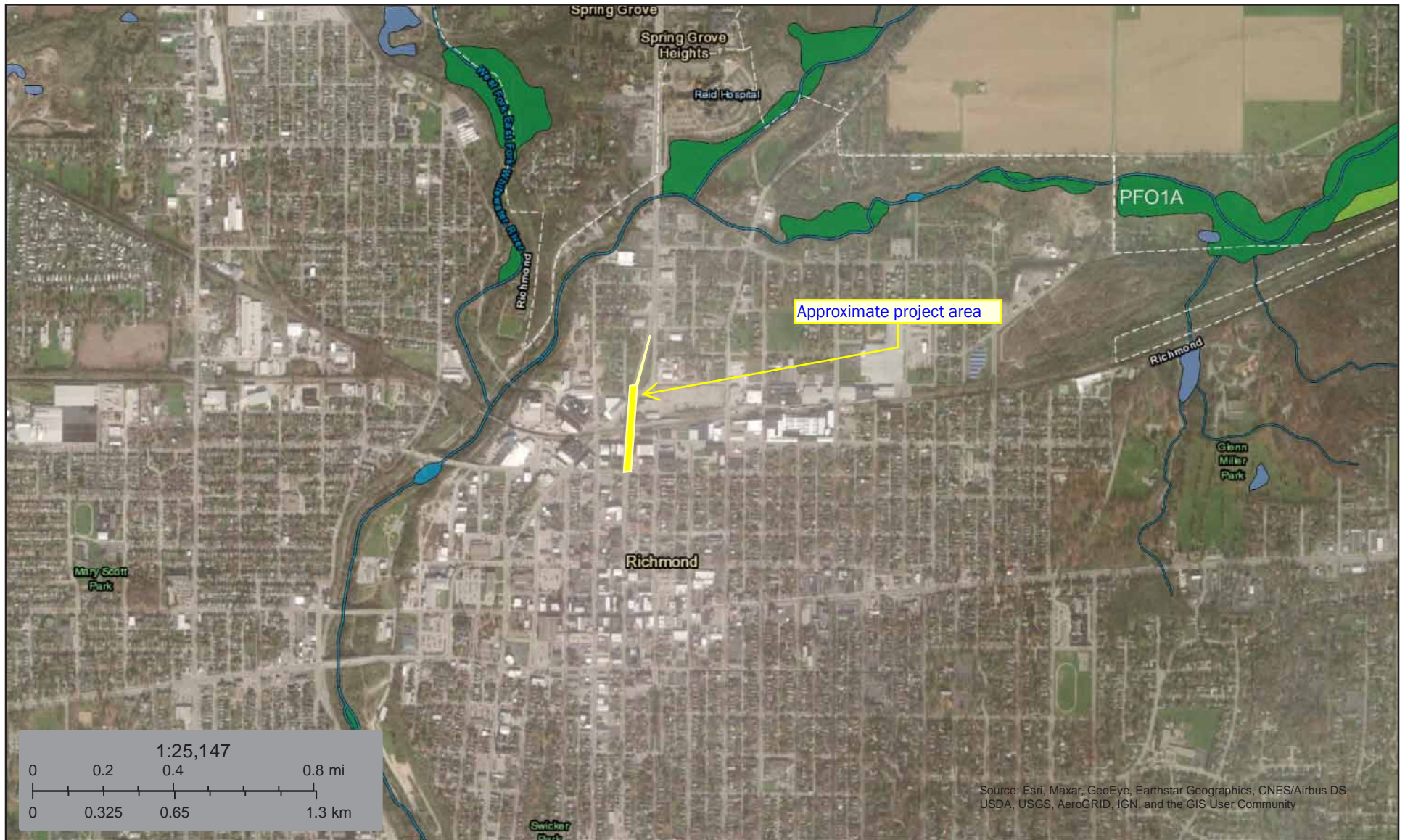
ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	% RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS			REMARKS
										LL	PL	PI	
930.0	37.5	<b>Limestone with Interbedded Shale,</b> hard, gray, low bedding planes, weathered near 30 ft, 32.5 ft and 36 ft, with soft shale band near 52.5 ft, with quartz vugs near 56.5 ft and 67 ft	RC 2		100				222				
			RQD= 43%						324				
925.0	42.5		RC 3		100				335				
			RQD= 50%										
920.0	47.5		RC 4		100				272				
			RQD= 67%										
915.0	52.5		RC 5		100				375				
			RQD= 40%						287				
910.0	57.5	RC 6		100									
		RQD= 88%											
905.0	62.5	RC 7		100				432					
		RQD= 52%											
900.0	67.5	RC 8		100				390					
		RQD= 72%											
		69.0											
		Bottom of Boring at 69.0 ft											
		Auger refusal at 29 ft											
895.0	72.5												
890.0	77.5												

E:\BORING LOG (INDOT FORMAT) LAT.,LONG. CJ185673 GOOD FILE.GPJ IN\_DOT1.GDT 12/2/20



# Appendix F

## Water Resources



March 8, 2021

**Wetlands**

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

<https://www.fws.gov/wetlands/data/Mapper.html>

Indiana Floodplain Information Portal

**Find an address**

Example: 300 Michigan Avenue, Auburn, IN, 46706

[Go To Address](#)

**Jump to a county**

Select your county from below

Adams ▼

Want to use the [eFARA Wizard](#) to submit a floodplain information request to the State of Indiana, IDNR, Division of Water?

[< Previous Tips](#) [Next Tips >](#)

Map
FEMA Flood Insurance Study
Floodplain Layers
Frequently Asked Questions
Minimize

Profile Charter
Layers
Legend
Options
Help

Click on the map or enter an address to view Floodplain Information at that Point of Interest.  
[Click to return to the instructions](#)

Below is the available floodplain information for your Point of Interest. If you would like to request a Floodplain Analysis / Regulatory Assessment (FARA) from the IDNR, Division of Water, click on "eFARA Wizard".

**Point of Interest**

**Address:**  
100 W E STREET, RICHMOND, IN

**Effective Flood Zone:**  
Effective Zone X

**Approximate Flooding Elevation:**  
901.9ft NAVD88

**Source:**  
Zone AE Profile Delineation

**Distance from click:**  
1,389 ft

**Nearest Stream:**  
EAST FORK WHITEWATER RIVER

[eFARA Wizard](#)

**Local Ordinance Information**

Local floodplain regulations may be more restrictive than that of federal and state government. **ALL REGULATIONS MUST BE MET.** Please contact your local floodplain administrator for further information.

**Floodplain Administrator:**  
Greg Stiens  
**Title:**  
Director of Public Works & Engineering  
**Phone Number:** (765) 983-7394  
**E-Mail:** [gstiens@richmondindiana.gov](mailto:gstiens@richmondindiana.gov)

Download Report

Flood Zone Type: Effective ▼

[Download Report](#)

Currently centered on: **Wayne County**
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# Appendix G

## Public Involvement

## Notice of Survey

Date: March 23, 2019

### **SUBJECT: US 27 over Norfolk Railroad**

Dear Property Owner:

Our information indicates that you own or occupy property near the above referenced project. Our employees will be performing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, you will be contacted with additional information.

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey is needed for the proper planning and design of this project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or contact me at the telephone number or address shown above for our office. Mr. Matthew Kohut P.E., the Project Manager, is also available for questions concerning this project.

Sincerely,

Civil Engineering Consultants, Inc. (CECon)



Grant R. Niemeyer, P.S.  
Project Manager

Cc: File 18-118, Matthew Kohut P.E.: 317-616-1003

# Public Involvement Plan

## US 27 over Norfolk Southern Railroad (NSRR) and Local Streets

Des. 1702941

Updated April 2021



This plan was reviewed and complies with the 2021 INDOT *Project Development Public Involvement Procedures Manual*. Minor changes are shown in text boxes.

## Introduction

This Public Involvement Plan has been developed for the proposed US 27 over Norfolk Southern Railroad (NSRR) and Local Streets bridge replacement project, Des. 1702941 by the consulting firm Parsons Transportation Group (“Parsons”), on behalf of the Indiana Department of Transportation (INDOT). The purpose of this plan is to establish the goals and strategies for engaging with the public and key stakeholders in accordance with the most current *INDOT Public Involvement Procedures Manual*. Successful public involvement establishes communication between the public and INDOT in order to integrate the views, community concerns, transportation needs, and environmental considerations of the public into the transportation decision-making process.

## Project Description

INDOT proposes to replace the US 27 bridge over NSRR and Local Streets in the City of Richmond, Wayne County, Indiana.

The existing bridge provides grade-separated access for both vehicles and pedestrians over NSRR in Richmond, IN. US 27 serves as a main north-south route for the downtown Richmond area. The proposed work for US 27 bridge over NSRR is to replace the existing structure with a seven-span bridge on the same alignment, with minimal (< 1 foot) anticipated grade change. The existing sidewalks on the bridge would be replaced with an American with Disabilities Act (ADA) compliant sidewalk on the west side of the bridge. The eastern sidewalk and northeastern staircase would be removed, while the northwestern and both southern staircases would remain.

Proposed work also includes the closure of North F Street underneath the existing US 27 bridge, ending North F Street at North 9<sup>th</sup> Street. This will reduce this stretch of North F Street from two blocks long to one block long. Per coordination with INDOT Environmental Services, this is considered a “permanent traffic pattern alteration”.

Work will primarily occur within existing right-of-way. Less than 0.5 acre of right-of-way acquisition is anticipated. During construction, the facility would be closed to traffic, and a detour would be provided.

An analysis of environmental impacts is underway as part of the National Environmental Protection Act (NEPA) process. As the project development process progressed, impacts were reduced and minimized. The Section 106 finding is now anticipated to be "No Adverse Effect". Based on anticipated environmental impacts, the project is anticipated to be a Categorical Exclusion, Level 4 (CE-4) environmental document due to the proposed “permanent traffic pattern alteration”.

## Goals for the Public Involvement Plan

INDOT recognizes that Richmond residents and business owners play an important role in shaping the transportation decisions that will affect their community. They count on a safe and reliable transportation network to travel throughout the community and the state. Residents depend upon this network to reach their workplaces, leisure destinations, and to return home safely. Businesses require an efficient and safe transportation network to transport products and materials to their production facilities, clients, and customers. In addition to being users of the transportation network, these community members have a stake in transportation decisions because they are taxpayers. As INDOT makes decisions on transportation improvement projects, it must incorporate:

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- Input from the public
- Input from local governmental agencies, including local and regional transportation/transit agencies whose facilities and routes may be impacted by the project
- Input from resource agencies, such as federal and state agencies that are responsible for environmental resources, historic resources, air quality, and endangered species
- Input from local business owners

The goals established for this Public Involvement Plan are:

- Effectively communicating the project's benefits and schedule
- Responding quickly and clearly to community and user concerns
- Identifying potential project stakeholders, such as local officials and community members impacted by the project
- Establishing an inclusive and collaborative relationship with the various community members and key stakeholders throughout the public involvement process
- Developing partnering activities that assist with gathering information from stakeholders
- Adequately evaluating potential levels of controversy to address specific concerns and developing context sensitive solutions
- Working together to develop a transportation solution that has broad public support
- Providing productive forums for members of the public to provide comments

## The Public Involvement Process

Open communication between local officials, key stakeholders, the public, and the Project Management Team is essential for developing a transportation plan that aligns with the needs of the community. The Project Management Team (Team) leading public involvement efforts for this project consists of INDOT Central Office, INDOT Greenfield District Customer Service, and Parsons. This Team will manage the public involvement activities outlined in this document and coordination with agency stakeholders.

The public involvement process begins with coordination between the Team, local officials, and other stakeholders that will be involved with the project. Initial coordination meetings with local officials will include information on the scope and schedule of the project, as well as an opportunity to discuss potential project impacts as they relate to their jurisdiction. The process continues by providing information to these same stakeholders and keeping them informed of the project's direction.

The use of virtual public involvement methods to broaden public participation and promote safe and prudent practices, particularly during emergencies, in a manner that meets all federal and state public involvement requirements. The most recent interim virtual INDOT Public Involvement Guidance effective May 26, 2020: <https://www.in.gov/indot/4039.htm> [in.gov]

Current procedures are available at  
<https://www.in.gov/indot/4103.htm>

## Stakeholders

Stakeholders are people and organizations that may be affected by the project, and agencies with jurisdiction related to project activities. Throughout the public involvement process, the Team will need to engage, educate, communicate, and coordinate with various categories of stakeholders. While such meetings are intended to focus on concerns related to a specific group of individuals, they are open to the public but will not be advertised. The Team will prepare the agenda and necessary handouts for all such meetings. Team members will also have numerous contacts with stakeholders throughout the project and will answer any



questions and address comments throughout the project via e-mail and by telephone. Different outreach tools and engagement activities will need to be implemented depending on the targeted group of stakeholders. The stakeholder categories for the US 27 over NSRR project include:

- Elected officials
- Federal, local, and regional transportation agencies
- Public safety and emergency responders
- Federal, state, and local resource agencies
- General public
- Adjoining landowners
- Major businesses and employers in the project area
- Community, neighborhood, and non-profit groups, including churches
- Historical/archeological consulting parties
- Native American Tribes

### Stakeholder Communication Strategies

The groups of stakeholders described below will be coordinated with at different phases of the public involvement process. The phases of the process, and the level of stakeholder involvement at each phase, are as follows:

#### Communication Phases

Date	Phase Description
January 2020	Early Coordination letters (Section 106- 1/8/2020 and Agency/local ECL-1/15/2020)
August 2020	Initial Meetings: Initial kick-off coordination to discuss the project purpose and needs and to make the stakeholders aware of the current project scope. There were two meetings: <ul style="list-style-type: none"> <li>• Public Informational Meeting/Open House</li> <li>• Section 106 Consulting Parties Meeting</li> </ul> Resource agencies received early coordination letters. Since limited impacts are anticipated, a resource agency meeting (RAM) is not proposed.
Summer 2021	Section 106 Effect Finding and Public Notice. <u><i>A finding of No Adverse Effect is anticipated.</i></u>
Fall 2021	Offering Public Hearing: Following release of the CE-4 document for public involvement, the public will have the opportunity to comment on the findings of the environmental document and request a public hearing*.
TBD (2022 or early 2023)	Future Public Information Meetings: One or more public information meetings will be held prior to the bridge closure to discuss design details, construction schedule, and maintenance of traffic with stakeholders and the general public.

\*Based on the results of stakeholder feedback from the initial public information and consulting party meetings, no controversy is anticipated.

### Elected Officials

The Team will conduct outreach via email or by telephone to inform elected officials about the project. Elected officials will be informed about road closures and detours during the early coordination phase. The Project Management Team will conduct meetings with elected officials at their request. The PIP will be updated as appropriate to reflect any changes in the following offices.

**Elected Officials**

<b>Name</b>	<b>Office</b>
Governor Eric Holcomb	Governor of Indiana
Mayor David Snow	Mayor of Richmond
Senator Mike Braun	U.S. Senator
Senator Todd Young	U.S. Senator
Representative Greg Pence	U.S. Congress 6 <sup>th</sup> District of Indiana
State Senator Jeff Raatz	Senate District 27
State Representative Brad Barrett	House District 56
Councilor Gary Turner	Richmond Common Council District 6
Councilor Kelly Cruse-Nicholson	Richmond Common Council District 2
Councilor Jeffery Locke	Richmond Common Council District 5
Councilor Ron Oler, President	Richmond Common Council at Large
Councilor Jane Bumbalough	Richmond Common Council at Large
Trustee Susan Isaacs	Wayne County

**Federal, Local, and Regional Transportation Agencies**

The federal transportation agency with authority over the project is the Federal Highway Administration (FHWA). Local and regional transportation agencies and providers include:

- INDOT, Central Office
- INDOT, Rail Programs Office
- INDOT, Greenfield District
- Richmond Street Department
- Rose View Transit-City of Richmond
- Norfolk Southern Railroad Co.
- Richmond Community Schools
- IU East University
- Earlham College
- Ivy Tech Community College
- Seton Catholic Schools

Rose View Transit operates the municipal public bus system for the City of Richmond. Richmond Community Schools manage transportation services for students within the US 27 project area. The Norfolk Southern Co. owns the railroad under US 27.

These organizations will need more coordinated efforts since their own facility usage, projects, and construction schedules will be ongoing during the US 27 project.

**Public Safety and Emergency Responders**

Public safety and emergency responders must be able to effectively respond to incidents in the Richmond area. Public safety and emergency response agencies within this jurisdiction include:

- Indiana State Police
- Richmond Police Department
- Richmond Fire Department

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- Wayne County, Emergency Management
- Wayne County, Sheriff's Department

Each of these organizations requires specific coordination efforts to solicit input on how their response routes and response times may be impacted by the project. Meetings between the Team and these agencies will occur during the planning and environmental phase.

## Major Businesses and Employers

The major employers in north and the northwest of Richmond include:

- Reid Health
- Indiana University East Campus
- Belden Wire and Cable

The Team will reach out via email or by telephone to determine each of these organizations' interest in the project. Organizations' participation as stakeholders will be voluntary.

## Neighborhoods, Community Non-Profits, and Religious Organizations

The Team will coordinate with the City of Richmond throughout the project, including the initial public open house and consulting party meetings.

Various types of neighborhood associations, nonprofit community development corporations, and other community nongovernmental organizations operate within the project area. The nature of their work generally consists of community outreach programs, community and neighborhood development, and advocacy. The Team will coordinate with these organizations during the public involvement process. Coordination may involve outreach via email or by telephone. At the organizations' requests, the Team may hold a meeting to discuss how the project may affect the work they do, and how the specific communities they interact with may be affected. As potentially affected populations are identified, these groups may be included in specific Environmental Justice (EJ) outreach.

### Neighborhoods and Community Non-Profits

Name	Association Type
Wayne County Area Chamber of Commerce	Chamber of Commerce for metro-area
Wayne County Convention and Tourism Bureau	Umbrella organization of neighborhood associations and community development corporations
Wayne County Foundation Richmond Community Development	Community Improvement Nonprofit
Richmond Columbian Properties Richmond Neighborhood Restoration Inc.	Community Nonprofit
Visit Richmond	Tourism Association
Economic Development Corporation of Wayne County	Community Development Corporations
Old Richmond Historic District	Community Group
Preserve Richmond Inc	
Depot District Association	

Name	Association Type
Bethel AME Church Mt. Olive Baptist Church Central United Methodist Church St Andrew Catholic Church First Baptist Church Rock Solid Ministries Iglesia Adventista Del Septimo Dia Life Ministries Christian Lifted Church Second Missionary Baptist Church Original Church of God	Churches/religious institutions
Atlas Apartments 9 North Apartments Music City Place Apartments (Senior) Adam H Bartel Senior Apartments Leland Legacy, Assisted and Independent Senior Living	Residential communities

**General Public**

Engagement with the general public will occur during the initial public information meeting/open house and public hearing. Throughout the project, INDOT’s website, traditional media, and social media will be used to communicate with the public. This is discussed in greater detail below.

**Community Advisory Committee (CAC)**

A CAC is not currently scoped for this project. If the need arises; a CAC will be added through an addendum to the scope of work.

**Environmental Justice Outreach**

As described in its Public Involvement Manual, “INDOT considers the needs of low-income and minority populations as it undertakes public involvement activities in the planning, programming, and project development processes. INDOT seeks opportunities to reach out to and solicit input from these populations.” Federal law, including Title VI of the Civil Rights Act of 1964, the Federal Highway Act of 1973, and the Age Discrimination Act of 1975, prohibits discrimination on the basis of race, color, national origin, gender, and age. Furthermore, Executive Order 12898, titled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” obligates Federal actions (those receiving federal funding) to avoid or minimize and mitigate adverse impacts to low-income and minority populations and to assure that disproportionately high and adverse impacts on these populations are identified and addressed.

In accordance with these regulations, INDOT policy requires that EJ populations be identified and provided an opportunity for meaningful participation in the process. Based on the preliminary review of US Census data and the US Department of Housing and Urban Development (USHUD) Resource Locator mapping tool (<https://resources.hud.gov/>), potential EJ populations are present within the project area. Additional analyses and information will be gathered to identify potential EJ populations. Community contacts and any organizations serving these populations will be added to the project mailing list and informed of relevant public

involvement activities and project milestones. If there are potentially disproportionate impacts to the EJ populations are identified; targeted outreach, such as meetings with specific communities, may occur.

## Public Informational Meeting/Open House

One public informational meeting will be conducted during project development to gather input from the full range of project stakeholders. Typically, on projects of this type and magnitude, the open house format is most effective, as it provides the public flexibility on time and provides for one-on-one discussion between stakeholders and the project team. It is currently anticipated that one public meeting will be held during the project development phase of the project. A summary of the public meeting will be included in the environmental document.

One or more public information meetings will be held prior to the bridge closure to discuss design details, construction schedule, and maintenance of traffic with stakeholders and the general public.

Public meetings will be advertised on the project's website and in local media outlets, and notices will be sent to all members of the project mailing list. As appropriate, meeting notices will be placed in neighborhood and/or non-English publications, foreign language materials and translators will be provided, and, to the extent possible, meeting locations will be transit accessible.

To ensure compliance with the Americans with Disabilities Act (ADA), all public meetings will be held in places that are accessible to individuals in wheelchairs, and meeting notices will include a contact person for requests for accommodation for hearing or sight-impaired individuals (e.g., sign language interpreter, telecommunications device for the deaf, etc.).

## Resource Agency Coordination

The National Environmental Policy Act of 1969 (NEPA) calls for an examination and consideration of impacts of a proposed action on sensitive resources for a project of this scale. These resources include, but are not limited to, floodplains, wetlands, endangered species, historic and archaeological sites, parks, air quality, wildlife habitat, etc. There also are the transportation needs that must be fulfilled and socio-economic impacts that require consideration. Because of impacts to resources, socio-economic impacts, and needed transportation improvements, there is a balanced decision-making process that considers a range of factors of both impacts to the resources and the transportation needs. To produce better environmental decisions, agencies with special expertise or jurisdiction by law are included in the study process. This resource agency involvement begins early in the study to identify important issues related to the proposed action and continues throughout the study to avoid conflict later, ensuring full input from the various agencies. These agencies will receive early coordination letters. Individual meetings will occur as-needed. A resource agency meeting is not currently scoped for this project. Resource agencies invited to consult on this project will include:

- US Army Corps of Engineers (USACE)
- US Fish and Wildlife Service (USFWS)
- Natural Resource Conservation Service (NRCS)
- National Park Service (NPS)
- US Department of Housing and Urban Development (USHUD)
- Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife (DFW)
- Indiana Geological and Water Survey (IGWS)
- Indiana Department of Environmental Management (IDEM)
- Wayne County Highway Department

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- Richmond Street Department
- Richmond Parks and Recreation Administration
- Richmond Power and Light

## Section 106 Consulting Party Coordination

Congress set forth the importance of historic and archaeological resources upon the fabric of American life as a part of the National Historic Preservation Act (1966) (NHPA), which states that “the historical and cultural foundations of the Nation should be preserved as part of our community life and development in order to give a sense of orientation to the American people.” As a result of the NHPA, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts within the Area of Potential Effects (APE). This consulting party involvement begins early in the study to identify important issues related to the proposed action and continues throughout the study to avoid conflict later, ensuring full input from the various agencies.

Full Section 106 will be required. Consulting agencies include:

- INDOT Cultural Resources Office (CRO)
- IDNR Division of Historic Preservation and Archeology (DHPA)
- City of Richmond, Mayor and City Council and former City Council members
- City of Richmond, Street Department, Public Works and Engineering, Community Development, and Department of Infrastructure and Development
- Wayne County, Highway Department, Planning and Zoning, and Historian
- Wayne Township (Wayne County) Trustee
- Economic Development Corporation of Wayne County
- Wayne County Genealogy Society
- Wayne County Historical Museum
- Wayne County Area Chamber of Commerce
- Richmond Historic Preservation Commission
- Indiana Landmarks, Eastern Regional Office
- Indiana National Road Association
- Historic Richmond Depot District Association
- Preserve Richmond Inc.
- Richmond Columbian Properties
- Center City Development Corporation
- Depot District and Adjacent Property Owners and Other Interested Parties
- Native American Tribes with jurisdiction

## Updates on INDOT's Website

To provide the public with access to the most current project information available, the Team will provide project-related information to INDOT, who will be responsible for maintaining the project's website. Information that will be available on this website includes, but is not limited to:

- Project News and Updates
- Specific Project Information Such As:
  - Project Schedules

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- Listings of Project Meetings
- Copies of Various Project-Related Documents
- Contact information for providing comments
- Project Maps
- Links to other Websites including INDOT and FHWA.

## News Releases

The Team will provide news releases during the study process. The releases will be distributed to regional media and social media, and they will be posted on the City of Richmond and INDOT web sites at key project milestones. This will be the primary method for informing and involving a wide public audience.

## Noise Study Information Meeting

It is assumed that this project will qualify as a Type III project, and that a noise study will not be required.

## Public Hearing

A public hearing will be offered once the draft CE-4 has been released by INDOT for public involvement. The draft CE-4 will be posted on the project's website, and copies can be mailed upon request. If allowed, a hard copy will also be posted at a local repository (e.g., public library). A Notice of Planned Improvement Offering of Public Hearing Opportunity (Notice) will be advertised twice in the legal section of at least two newspapers, including the *Palladium-Item*. The Notice will be posted on the project's website, mailed to the project's stakeholder list, including adjoining landowners, and sent to project stakeholders on INDOT's statewide mailing lists. This Notice will provide a minimum of 15-days in which the public may request a Public Hearing. In addition, the Notice will offer the public the opportunity to submit comments, concerns, and/or questions related to the proposed improvement. The Notice will include contact information for requesting assistance for persons with disabilities or communication barriers. A summary of the public comments and responses to all substantive comments will be included in the final environmental document for the project. If INDOT decides to hold a Public Hearing, then this PIP would be updated accordingly.



Greenfield District  
32 S. Broadway St.  
Greenfield, IN 46140

PHONE: 1-855-463-6848  
FAX: (317) 462-7031

Eric Holcomb, Governor  
Joe McGuinness,  
Commissioner

August 12, 2020

Mailed to stakeholders listed in the  
Approved Public Involvement Plan on  
August 12, 2020.

[Address Block]

The Indiana Department of Transportation (INDOT), in cooperation with the Federal Highway Administration (FHWA), has initiated project planning for a bridge replacement project on US 27 over Norfolk Southern Railroad (NSRR) and local streets in the City of Richmond in Wayne County, Indiana.

INDOT and FHWA recognize the value of public outreach and stakeholder participation in the transportation decision making process. With this letter, we extend an invitation to be involved.

**Project Description**

The project is located within the City of Richmond, in Wayne County, Indiana. US 27 serves as the main north-south route for the downtown area. The existing bridge is approximately 0.3 mile north of westbound US 40. The project extends 475 north and 500 feet south (D Street intersection) from the center of the US 27 bridge over the NSRR and local streets.

The proposed alternative would replace the existing 17-span bridge with an 8-span bridge on the same alignment. The segment of North F Street located at the north bridge abutment would be permanently closed to traffic and filled. The existing sidewalks on the bridge would be replaced with an American with Disabilities Act (ADA)-compliant pedestrian facility on the west side of the bridge. The eastern sidewalk and staircases would be removed, while the northwestern staircase would remain. Guardrail would be replaced as-needed.

Less than 0.5 acre of right-of-way acquisition is anticipated. This alternative would not require any relocations. During construction, US 27 would be closed to traffic, and a detour involving US 40 and I-70 would be utilized. Construction is anticipated to begin early Winter of 2022/2023.

**Public Information Meeting**

An in-person and virtual public information meeting will be conducted concurrently to gather input from officials, local businesses, area residents, and the general public. The purpose of the public meeting is to offer all interested persons an opportunity to comment on the proposed project, including its purpose and need, and the alternatives under consideration.

The in-person public information meeting will be held at the 4<sup>th</sup> Floor Blues Club, 923 E. Street, Richmond, Indiana 47374, on Thursday, August 27, 2020 from 5:00 p.m. to 7:00 p.m. There will be a presentation at 5:30 p.m. and repeated at 6:30 p.m.

Additionally, the presentation will be broadcast on Zoom. To register in advance for the webinar, please go to [https://richmondindiana-gov.zoom.us/webinar/register/WN\\_HReZdD89QIeRANRXI1jFeA](https://richmondindiana-gov.zoom.us/webinar/register/WN_HReZdD89QIeRANRXI1jFeA) [richmondindiana-gov.zoom.us]. After registering, you will receive a confirmation email containing information about joining the Zoom presentation.

With advance notice, the Project Team can provide special accommodation for persons with disabilities



and/or limited English speaking ability and persons needing auxiliary aids or services such as interpreters, signers, readers, or large print. Should special accommodation be needed please contact Alex Lee, Parsons at (317) 616-1011, or via email at [Alexander.Lee@parsons.com](mailto:Alexander.Lee@parsons.com).

The public information meeting will follow Indiana State Department of Health (ISDH) guidance, health and safety protocols including project team members wearing face masks and/or coverings, encouraging attendees to do so, providing hand sanitizer and access to hand washing facilities, and implementing social distancing, including monitoring the number of attendees participating to comply with local regulations. Public information meeting attendees are required to wear masks and practice social distancing. Attendees who do not have a mask will be provided one. Hand sanitation stations will be available. Due to the pandemic; the in-person meeting time and location is subject to change.

Thank you for your interest in this project. If you have any questions, please contact Alex Lee, Parsons at (317) 616-1011, or via email at [Alexander.Lee@parsons.com](mailto:Alexander.Lee@parsons.com). Or please contact me at (317) 467-3986 or via email at [nriggs@indot.in.gov](mailto:nriggs@indot.in.gov).



Nathan Riggs  
Project Manager  
Indiana Department of Transportation

**Details:**

**August 19th @9am with a repeat session on August 20th @9am.** Please select a date that works best for you. Once registered, you will receive a Zoom link. Space is limited. <https://www.eventbrite.com/e/rapid-recovery-next-level-jobs-zoom-tickets-116770420471>

Know someone who may benefit from this opportunity? Help us spread the word! Share this invitation.

This Zoom event is supported by the Wayne County Area Chamber of Commerce, the Wayne County Foundation, Ivy Tech Community College, and Forward Wayne County's Employability Coalition. Please contact [Acacia St. John](#) with any questions, phone 765.259.3327.

## Parkinson's Programs Aim to Improve Issues with Speech

Posted August 19, 2020

Two new therapy programs at [Reid Rehabilitation Services](#) are designed to help Parkinson's patients improve one of the effects of the disease - a weakened voice.

"These two related programs help patients increase their overall vocal quality and intensity, and they can maintain this improvement for years after completing the program," said Kari Parks, Speech Therapist who helped get the program launched.

Through the process of investigating options to replace a previous program, she discovered a grant application for the [Parkinson's Voice Project](#), which combines education and individual speech therapy with SPEAK OUT!® and group therapy called The LOUD Crowd®.

SPEAK OUT! consists of 12 individual sessions with a speech therapist to learn training and exercises, with a weekly group session, The LOUD Crowd, for support and maintenance.

"There is a clear need," she said, noting that Reid Health already provides other services such as [Rock Steady Boxing](#) - Reid Health to up to 100 Parkinson's patients. The program also helps connect patients with others who are dealing with similar challenges.

The SPEAK OUT! individual sessions are billed through insurance programs and the group session is free, she said. SPEAK OUT! requires physician referral.

For more information on the programs, contact Reid Rehab Services at (765) 983-3092 or visit [Parkinson's Voice Project](#).

## Notice of Public Meeting - Proposed Bridge Replacement

Posted August 13, 2020

DES. #: 1702941

### NOTICE OF PUBLIC MEETING

The Indiana Department of Transportation (INDOT) will host a public information meeting on Thursday, **August 27, 2020, 5:00 p.m. - 7:00 p.m.** at the 4th Floor Blues Club, 923 North E Street, Richmond, IN 47374. The presentation will also be broadcast on Zoom; to register in advance, please go to [https://richmondindiana.gov.zoom.us/webinar/register/WN\\_HReZdD89QleRANRX11jFeA](https://richmondindiana.gov.zoom.us/webinar/register/WN_HReZdD89QleRANRX11jFeA) [richmondindiana.gov.zoom.us]. After registering, you will receive a confirmation email containing information about joining the Zoom presentation.

The purpose of the public meeting is to offer all interested persons an opportunity to comment on preliminary plans for the proposed bridge replacement project on US 27 over Norfolk Southern Railroad (NSRR) and local streets in the City of Richmond, Wayne County, Indiana. US 27 serves as a main north-south route for the downtown Richmond area. The existing bridge is approximately 0.3 mile north of westbound US 40. In addition to crossing NSRR, the US 27 bridge crosses five local streets. Of those five, North E Street and Fort Wayne Avenue are both major collectors; two are local roads, Elm Place and North F Street; and the fifth is an alley completely covered by the existing bridge that connects Elm Place and North E Street.

The needs for this project are due to the deteriorated condition of the current structure, INDOT Structure No. 027-89-02136 B, and pedestrian facilities on the bridge that do not meet current standards. The existing 17-span noncontinuous bridge layout places unprotected piers in the middle of busy streets, and there are areas of collision damage. The pedestrian facilities on the bridge are substandard and do not meet Americans with Disabilities Act (ADA) requirements. Additionally, there are existing concrete staircases on all four quadrants of the bridge that are substandard and deteriorating.

The proposed project would replace the existing structure with an 8-span bridge on the same alignment, with minimal anticipated grade change. The segment of North F Street located at the north bridge abutment would be permanently closed to traffic and filled. The existing sidewalks on the bridge would be replaced with an ADA-compliant pedestrian facility on the west side of the bridge. The eastern sidewalk and staircases would be removed, while the western staircase would remain. Guardrail would be replaced as-needed. Less than 0.5 acre of right-of-way acquisition is anticipated. During construction, US 27 would be closed to traffic and a detour would be provided. Construction is planned for 2023 and work would occur year-round.

This public open house will follow Indiana State Department of Health (ISDH) guidance, health and safety protocols including project team members wearing face masks and/or coverings, providing hand sanitizer, and access to hand washing facilities, and implementing social distancing, including monitoring the number of attendees participating to comply with local regulations. Public information meeting attendees are required to wear masks and practice social distancing. Attendees who do not have a mask will be provided one, and hand sanitation stations will be available. Due to the pandemic, in-person meeting time and location is subject to change.

With advance notice, the Project Team can provide special accommodation for persons with disabilities and/or limited English speaking ability and persons needing auxiliary aids or services such as interpreters, signers,

Posted on [Waynet.org/news/releases](https://www.waynet.org/news/releases)  
on August 13, 2020

readers, or large print. Should special accommodation be needed please contact Alex Lee, Parsons at (317) 616-1011, or email alexander.lee@parsons.com or contact me at (317) 467-3986 or e-mail nriggs@indot.in.gov.

Nathan Riggs  
Project Manager  
[Indiana Department of Transportation](#)

### News Archives

- [2020 3rd Quarter](#)
- [2020 2nd Quarter](#)
- [2020 1st Quarter](#)
- [2019 4th Quarter](#)
- [2019 3rd Quarter](#)
- [2019 2nd Quarter](#)
- [2019 1st Quarter](#)
- [2018 4th Quarter](#)
- [2018 3rd Quarter](#)
- [2018 2nd Quarter](#)

### Did You Know?

Dr. Mary F. Thomas, who practiced medicine in Richmond during the mid-1800's, was the second female physician to be admitted to the American Medical Association.

### Wayne County Fast Facts

Location: East Central Indiana USA  
 Founded: 1810  
 Population: 66,185  
 Elevation: 1,257 feet  
*Highest Point in Indiana*  
 County Seat: Richmond  
 Local Time: 10:53 am EDT  
 Date: Friday, August 28, 2020  
 About Indiana: [IN.gov](#)  
 Current Weather:

**Centerville, IN**

82°  
9:52 am CDT  
Cloudy

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Email: [info@waynet.org](mailto:info@waynet.org)  
 Phone: 765.939.0857  
 Mail: 50 North 5th St. Richmond, IN 47374  
 Director: [Jane Holman](#)

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 SmartHub will replace the current

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# Pal Item.

## LOCAL

# INDOT to have public meeting about replacing U.S. 27 bridge over Depot District

**Jason Truitt** Richmond Palladium-Item

Published 11:37 a.m. ET Aug. 17, 2020

RICHMOND, Ind. — An informational meeting scheduled for next week will give the public its first look at preliminary plans for replacing the bridge that carries U.S. 27 over the Historic Depot District.

The Indiana Department of Transportation has set the meeting for 5-7 p.m. Aug. 27 at the 4th Floor Blues Club, 923 N. E St. The presentation also will be available via online conferencing service Zoom.

INDOT says the current structure — which spans the Norfolk Southern Railroad, North E and F streets, Fort Wayne Avenue, Elm Place and an alley — is deteriorating, while the sidewalks on the bridge don't meet current standards and aren't compliant with the Americans with Disabilities Act.

"The existing 17-span noncontinuous bridge layout places unprotected piers in the middle of busy streets, and there are areas of collision damage," INDOT said in a news release. "Additionally, there are existing concrete staircases on all four quadrants of the bridge that are substandard and deteriorating."

Work on the project is expected to begin in the first quarter of 2023 and go through the year. The current structure would be replaced with an eight-span bridge. The segment of North F Street at the north bridge abutment would be permanently closed to traffic and filled.

The new bridge would have one ADA-compliant sidewalk on the west side. The sidewalk and staircases on the east side would be removed.

While construction is underway, U.S. 27 would be closed to traffic.

Those attending the meeting in person will be required to wear masks and practice social distancing. Masks and hand sanitation stations will be available.

Anyone who wants to participate via Zoom should register in advance at [https://richmondindiana.gov.zoom.us/webinar/register/WN\\_HReZdD89QIeRANRXI1jFeA](https://richmondindiana.gov.zoom.us/webinar/register/WN_HReZdD89QIeRANRXI1jFeA). Once you've signed up, you'll get an email with information about how to join the presentation.

*Jason Truitt is the team leader and senior reporter at the Palladium-Item. Contact him at 765-973-4459 or [jtruitt@pal-item.com](mailto:jtruitt@pal-item.com).*

Posted on  
<https://www.pal-item.com/story/news/local/2020/08/17/indot-hold-meeting-replacing-u-s-27-bridge-over-depot-district/5598658002/>  
on August 17, 2020

US 27 over NSRR and Local Streets Project Public Meeting Sign-In Sheet

August 27, 2020

Name	Organization (If applicable)	Email	Street Address	Zip Code
Kim Peters	FNDOT			
Barry Cramer	former Advisory Com. member Bicycle and Pedestrian Master Plan			
Kate Kott	city			
Bill Jones	Johnson Assoc.			
Bill Engle	Richard Common Council			
CHARLES FITZGERALD	-			
FRYDOWNE WASHINGTON	-			
Ron Oler	Common Council			
Hailey Mullins				

US 27 over NSRR and Local Streets Project Public Meeting Sign-In Sheet

August 27, 2020

Name	Organization (If applicable)	Email	Street Address	Zip Code
Tami Johnson	Abilities Richmond			
Jeffrey Locke	CITY OF RICHMOND			
Jacee' Holman	Better Homes & Est.			
Jason Truitt	Palladium Inter			
Noah Bevington	MTFCA			
Ra'nee Harp				
Michael Klein	WKBY			
MATT SEGAL	RESIDENT			
Adria J. Pelouy	TCC, Inc			
Benny R. B.	Business One			
MICHAEL HOMAN	RICHMOND BUILDERS SUPPLY			
GRIG STIVENS	CITY			
Brandon Sanders	County			
LARRY PARKER	CITY			

**Attendee Report****Public Information Meeting: INDOT US 27 Bridge, Des. 1702941**

Report Generated:

8/28/2020 10:37

Topic

Webinar ID

Actual Start Time

Actual Duration (minutes)

INDOT US 27 Bridge

912 7044 3647

8/27/2020 16:49

92

Panelist Details

Attended

Alexander Lee	Alex	Lee
Ian Vanness	Ian	Vanness
Brian Alenskis	Brian	Alenskis
Beth Fields	Beth	Fields
James Burns	James	Burns
Andrew Klein	Andrew	Klein
Wendy	Wendy	Atwell
Jane	Jane	Holman
Lucas Peterson	Lucas	Peterson
Howard	Howard	Price
Jane Holman	Jane	Holman
Wes Miller	Wes	Miller
Richard Peterson	Richard	Peterson
Tina Conti	Tina	Conti
MICHAEL	MICHAEL	HOMAN
Bridget	Bridget	Hazelbaker
Guy	Guy	Guthrie
Douglas	Douglas	Gardner
Brian Holman	Brian	Holman
Ron	Ron	Bales
Jessica McKinley	Jessica	McKinley
Greg Pyle	Greg	Pyle
Meghan Hinkle	Meghan	Hinkle
Nancy	Nancy	Green
Johnnie B	Johnnie B	McGovern Jr
Chris	Chris	O'Neil
Ed DeLaPaz	Ed	DeLaPaz
Kate Kotan	Kate	Kotan



# US 27 over NSRR and Local Streets

Public Meeting Handout  
August 27, 2020

## DES# 1702941

### Project Location



### Recommended Alternative





## Introduction

To address safety issues and provide sound structures developed for the proposed US 27 over Norfolk Southern Railroad (NSRR) and Local Streets bridge replacement project, Des. 1702941 by the consulting firm Parsons Transportation Group (“Parsons”), on behalf of the Indiana Department of Transportation (INDOT).

## Project Purpose and Need

The purpose of the project is to provide a sound structure and resolve safety issues from piers in busy city streets. Improve safety for pedestrians by meeting design standards, including ADA. The need for this deteriorated bridge, collision damage, and non-ADA sidewalks.

## Project Description

INDOT proposes to replace the US 27 bridge over NSRR and Local Streets in the City of Richmond, Wayne County, Indiana.

The existing bridge provides grade-separated access for both vehicles and pedestrians over NSRR in Richmond, IN. US 27 serves as a main north-south route for the downtown Richmond area. The proposed work for US 27 bridge over NSRR is to replace the existing structure with an 8-span bridge on the same alignment, with no anticipated grade change. The existing sidewalks on the bridge would be replaced with an American with Disabilities Act (ADA) compliant sidewalk on the west side of the bridge. The eastern sidewalk and staircases would be removed, while the northwestern staircase would remain.

Proposed work also includes the closure of North F Street underneath the existing north bridge abutment, ending North F Street at North 9th Street. Local Roads under bridge will remain open throughout construction with temporary overnight closures for demolition, beam setting, etc.

## Contact Us

---

- Comment form send via email or postal mail

ATTN:  
INDOT, c/o Alex Lee  
Parsons  
101 W Ohio St, Suite 2121  
Indianapolis, IN 46204

Alexander.Lee@parsons.com

**INDOT Next Level Customer Service**

855-INDOT4U (855-463-6848)

www.indot4u.com

indot@indot.in.gov



*Please mention “US 27 Bridge Replacement” in your comments.*





## US 27 over Norfolk Southern Bridge Replacement

Public Information Meeting  
August 27, 2020



1

## Public Information Meeting Welcome

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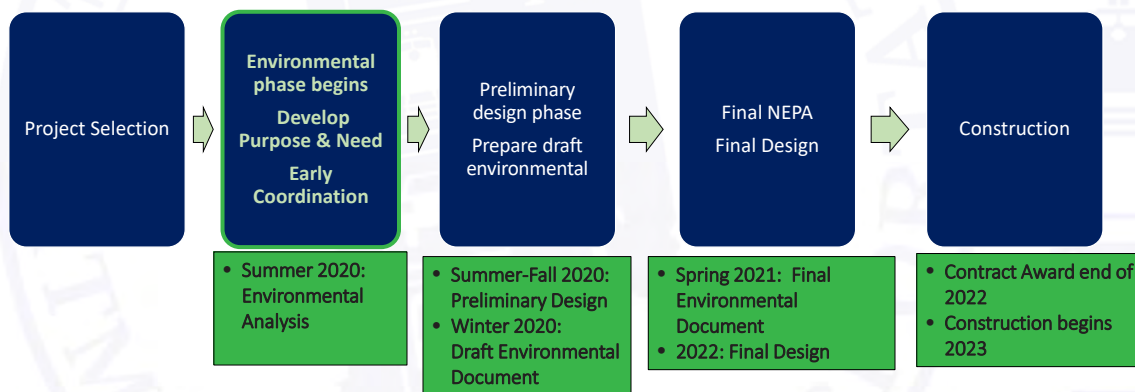
- Introductions of Project Team
- Open House Format
- Presentation at 5:30 and repeat at 6:30.
- Project website: <https://www.in.gov/indot/4082.htm>
- Provide comments tonight or via mail or email



2

# Project Development

## Categorical Exclusion – Level 4 (CE-4) Project



3

# Purpose of the Public Information Meeting

## Stakeholders:

- Opportunity to provide input throughout the Environmental Process
- Discuss key issues
- Promote collaboration
- Build understanding and support throughout the project



4

## Project Stakeholders

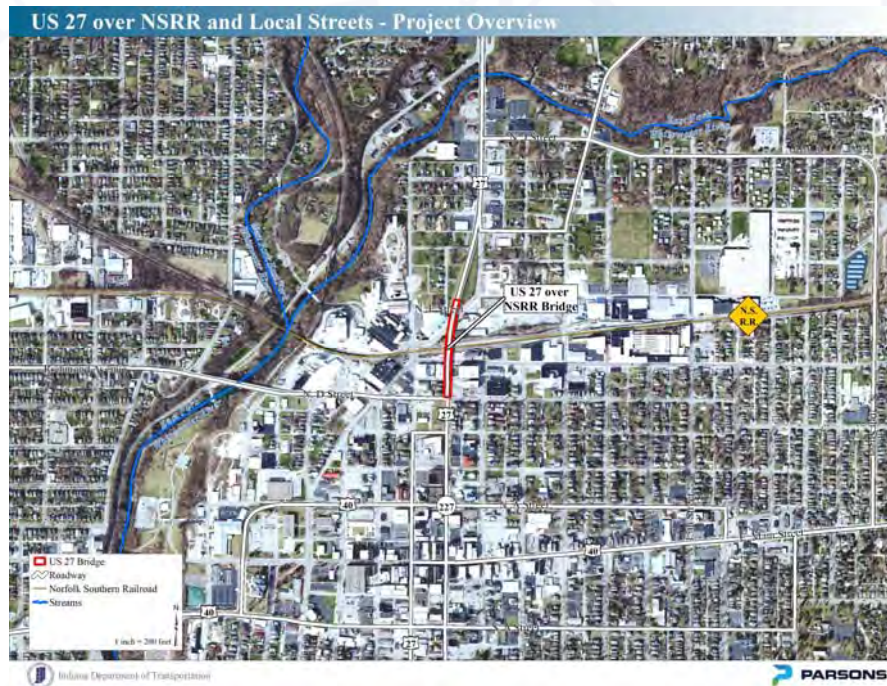
- Indiana Department of Transportation
- Federal Highway Administration, Indiana Division
- Elected & Local officials
- Norfolk Southern Railroad
- Residents
- Businesses
- Emergency services
- Schools
- Transit
- Religious Institutions
- Community Organizations



5

This graphic was used as an informational board during the public information meeting.

## Project Location



6

## Project Purpose

- Needs: Deteriorated bridge, collision damage, and non-ADA sidewalks
- Purpose: Provide a sound structure and resolve safety issues from piers in busy city streets. Improve safety for pedestrians by meeting design standards, including ADA.



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INDIANA

7

## Design Information and Constraints

- Five streets under the bridge
  - Three local
  - Two major collectors
- Two sets of railroad tracks
- Two Historic Districts: Richmond Railroad HD and Star HD
- Recently completed and future planned construction in the area
  - D Street intersection and US 27 resurfacing
  - E Street and Stellar Street
  - US 40

NextLevel  
INDIANA

8

## Historic Districts

### Richmond Railroad and Star Historic Districts



Depot



4<sup>th</sup> Floor Blues Club

NextLevel  
INDIANA

9

## Proposed Span Layout

- 17 existing spans reduced to 7 spans with less complex geometry
- Provides required vertical clearances
- Reduces number of piers in roadway between Elm Place and E Street
  - 4 existing; only 2 proposed
- Eliminates pier from middle of Fort Wayne Avenue
- Closes F Street access to Fort Wayne Avenue, eliminating several safety hazards
- Provides sidewalk on west side. Eliminates pedestrian facilities on east side.

NextLevel  
INDIANA

1  
0

10

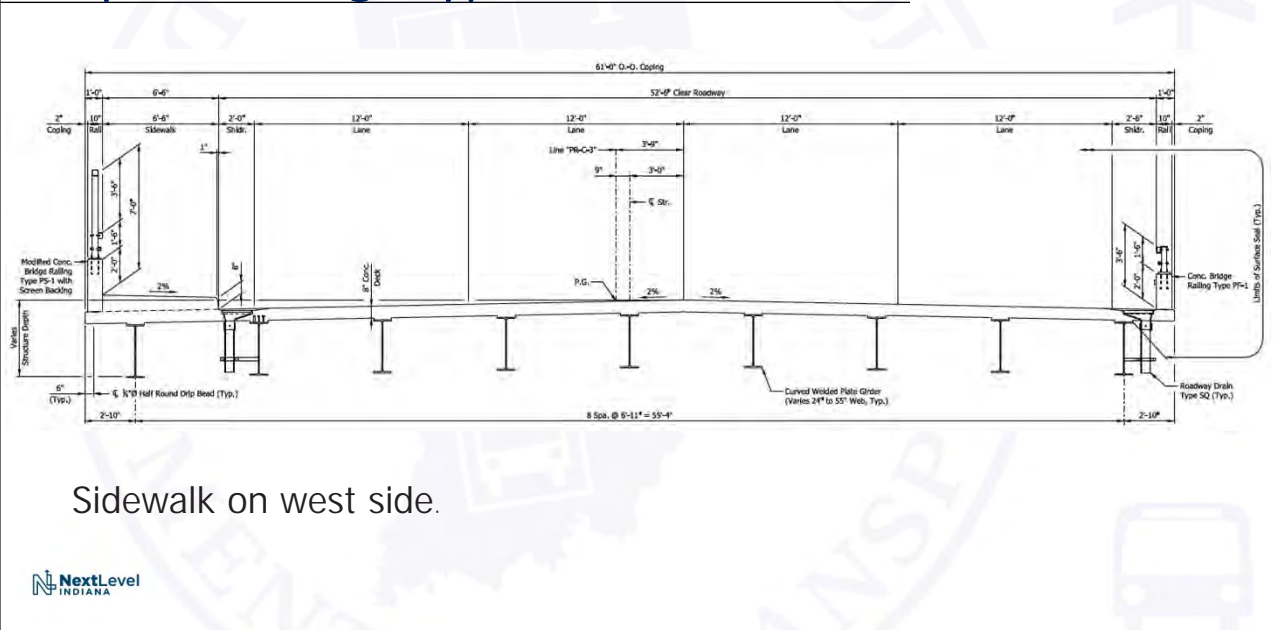
# Recommended Alternative



11

This graphic was used as an informational board during the public information meeting.

# Proposed Bridge Typical Section



Sidewalk on west side.

12

## Right-of-Way and Traffic Maintenance

- Temporary right-of-way and reacquisition mostly for access
- Full closure of US 27 with signed detour on State Highways
- Local Roads under bridge will remain open throughout construction with temporary overnight closures for demolition, beam setting, etc.
- Pedestrian detour will be provided



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## Project Schedule

- Environmental document released for public involvement – Winter 2020/2021
- Public Hearing – Winter 2020/2021
- Finalize environmental document – Spring 2021
- Final Design– 2022
- Award Contract – End of 2022
- Construction - 2023



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## Next Steps

- Public and project stakeholder input
  - Submit comments tonight or on website <https://www.in.gov/indot/4082.htm>
- INDOT review of public comments
  - All comments are given full consideration during decision-making process
- Communicate a decision
  - INDOT will notify project stakeholders as the project proceeds planning and design
  - Work through local media, social media outlets, paid legal notice
- Questions? Please visit the Project Team at the board stations



15

## Thank You

- Comment form send via email or postal mail

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101 W Ohio St, Suite 2121  
Indianapolis, IN 46204

Alexander.Lee@parsons.com

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*Please mention "US 27 Bridge Replacement" in your comments.*

16

## LOCAL

## Public gets first look at project to replace bridge over Depot District

**Jason Truitt** Richmond Palladium-Item

Published 6:45 a.m. ET Aug. 28, 2020 | Updated 8:36 a.m. ET Aug. 28, 2020

RICHMOND, Ind. — Work won't begin until 2023, but the Indiana Department of Transportation is gathering public feedback now on its preliminary plan for replacing the bridge that carries U.S. 27 over the Historic Depot District.

INDOT and its consulting firm on the project, Parsons, held a forum Thursday night at the 4th Floor Blues Club to share details of its work plan and allow the public to ask questions.

About 20 people showed up for the meeting.

"It's going to be helpful for us to have your input in the remaining steps of developing this project," said Nathan Riggers, a project manager for INDOT.

"It's a state bridge, but it's going directly through your community, so we really want you all to be members of this project team, too. It's going to create the best project for everybody, the best result for everybody."

Another public meeting is expected to take place at some point this winter before the final design for the project is wrapped up in 2022.

"The need is pretty obvious on this bridge," said Rachel Means, leader designer on the project for Parsons.

There's collision damage to some of the piers and others are deteriorating as are the sidewalks, which also don't meet current standards from the federal Americans with Disabilities Act.

The current structure has 17 spans, a number that will be reduced to seven with the replacement bridge. Four piers in the middle of the roadway between Elm Place and North E Street will drop to two, and another pier in the middle of Fort Wayne Avenue will be eliminated.

A portion of North F Street under the north end of the bridge will be permanently closed off to traffic.

"There's not enough vertical clearance. There's also a sight-distance issue when you're trying to make that turn from F Street to Fort Wayne Avenue, so we're just going to take that little section and we'll close off just that little portion," Means said.

The eastern sidewalk also will be eliminated as the travel lanes will be widened to 12 feet and the remaining western sidewalk will go from 4 feet wide to 6½.

"Right now, ... it's a little scary if anyone tried to cross that sidewalk on the current bridge," Means said.

The reduction in the number of piers between Elm Place and North E Street will give the city a chance to do something creative with that space at some point down the line.

"This is also going to turn into a placemaking opportunity for the city," Means said. "Their plan is to close off this roadway and they're going to come up with some kind of design for the community to use that area better.

"That's still in the very preliminary stages. They are still working on designs on what exactly that's going to look like, and there will be an opportunity to have public input on that in the future."

U.S. 27 will be closed to traffic for the duration of the project, which is expected to last through the year in 2023. However, North E Street and Fort Wayne Avenue will be open during construction other than temporary overnight lane closures during demolition and then installation of new beams.

Detours will direct traffic along state highways around the project. A pedestrian detour also will be available to help people safely cross the railroad tracks in the area.

Anyone who would like to comment on the project can do so by reaching out to Alex Lee, senior environmental planner for Parsons, at [Alexander.Lee@parsons.com](mailto:Alexander.Lee@parsons.com) or INDOT, c/o Alex Lee, Parsons, 101 W. Ohio St., Suite 2121, Indianapolis, IN 46204. "U.S. 27 Bridge Replacement" should be mentioned in the comment.

*Jason Truitt is the team leader and senior reporter at the Palladium-Item. Contact him at 765-973-4459 or [jtruitt@pal-item.com](mailto:jtruitt@pal-item.com).*

US 27 over NSRR and Local Streets Project Consulting Parties Sign-In Sheet

August 27, 2020

Name	Organization (If applicable)	Email	Street Address	Zip Code
GREG STIENS	CITY			
Kate Kotan	City			
Rick Parker	4th floor			
Susan Yeager	Model - Museum			
Tracie Robinson	Dept + Assoc. Better Homes Garden			
Mariesa Baasela	Little Belles			
Mariesa Baasela	Little Belles			
Renee Clark	business			
Downie Beverly	R P D			
Tamara Resnikoff	Good Life wellness			

**US 27 Bridge Project, Des. 1702941**  
 Public comments from the August 27, 2020 Public Information Meeting

Number	Date Received	Summary	Category	Name
1	8/27/2020 (hand-written)	The City's "Richmond Rising" comprehensive plan recognizes the need for "connectivity" among currently recognized bike routes. The 2015 Bicycle and Pedestrian Master Plan recommends bicycle accommodations along US 27/Chester Blvd.  The US 27/Chester Blvd bridge has long been a barrier in connecting the northern part of the city to downtown and elsewhere.	Bicycle, Pedestrian Access	Barry Cramer
	9/01/2020 (email)	INDOT's commitment to "Complete Streets" should lead to consideration of how this project might incorporate bicycle accommodations.		
2	8/27/2020	1. Lighting design for under bridge, specifically between North E St. & Elm St.  2. Possible pedestrian area at same location as above, would be favorable.	Lighting, Pedestrian Area	Robert R. Johnson
3	8/31/2020	Will Parsons subcontract with any local companies on this project?	Subcontracting	Councilor Jeffrey Locke



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue PHONE: 1-855-463-6848  
Room N642 FAX: (317) 462-7031  
Indianapolis, IN 46204

Eric Holcomb, Governor  
Joe McGuinness,  
Commissioner

## US 27 over NSRR and Local Streets Project

Thank you for attending this evening's public information meeting. Please submit comments by using the space provided below. INDOT appreciates your attendance and participation this evening.

August 27, 2020

### COMMENT:

The city's "Richard Rising" comprehensive plan recognizes the need for "connectivity" among currently-recognized bike routes. The 2015 Bicycle and Pedestrian Master Plan recommends bicycle accommodations along US 27/Chester Blvd.

The US 27/Chester Blvd bridge has long been a barrier in connecting the northern end of the city to downtown and elsewhere.

INDOT's commitment to "complete streets" should lead to consideration of how this project might incorporate bicycle accommodations.

NAME/ADDRESS: Barry Cramer  
741 - 21st St

**From:** [Lee, Alexander](#)  
**To:** [Diefenbaugh, Cedric](#)  
**Cc:** [Miller, Daniel J](#); [Port, Juliet](#); [Means, Rachel](#)  
**Subject:** US 27 Bridge Replacement  
**Date:** Tuesday, September 1, 2020 4:38:23 PM  
**Attachments:** [image001.png](#)

---



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**From:** Barry Cramer <barrycramer7@gmail.com>  
**Sent:** Tuesday, September 1, 2020 3:56 PM  
**To:** [kkotan@richmondindiana.gov](mailto:kkotan@richmondindiana.gov)  
**Cc:** Means, Rachel <[Rachel.Means@parsons.com](mailto:Rachel.Means@parsons.com)>; Lee, Alexander <[Alexander.Lee@parsons.com](mailto:Alexander.Lee@parsons.com)>  
**Subject:** [EXTERNAL] US 27 Bridge Replacement

Hello, Kate,

I hope that the City of Richmond and INDOT will prove their commitments to Complete Streets policies by including bicycle accommodations in the US 27 over NSRR and Local Streets Project.

I attended the public meeting on Thursday evening, Aug. 27, regarding the U.S. 27 bridge project over the Norfolk Southern Railroad and local streets in the Depot District. I had a somewhat detailed conversation with some of the Parsons representatives, including Rachel Means, the lead designer, and wrote a Comment for INDOT.

The design, as presented at the meeting, included an improved sidewalk for pedestrians, but nothing for bicyclists. Anyone who rides this route knows how inhibiting the lack of accommodation is to riding over the bridge and how disruptive it is to the connectivity of important areas of the city.

As I pointed out to Rachel Means, the City's Bicycle and Pedestrian Master Plan does provide for an accommodation over the railroad. She committed to researching this further. (By way of reminder, I

served on the Advisory Committee for the Plan, which was completed and published in 2015.)

Please share this within the Dept. of Infrastructure and Development to ensure Richmond's forward movement toward Complete Streets and becoming a bicycle-friendly city.

Thanks, Kate.

Best Regards,  
Barry Cramer

cc: Rachel Means  
Lee Alexander

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# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue PHONE: 1-855-463-6848  
Room N642 FAX: (317) 462-7031  
Indianapolis, IN 46204

Eric Holcomb, Governor  
Joe McGuinness,  
Commissioner

## US 27 over NSRR and Local Streets Project

Thank you for attending this evening's public information meeting. Please submit comments by using the space provided below. INDOT appreciates your attendance and participation this evening.

August 27, 2020

### COMMENT:

1. LIGHTING DESIGN FOR UNDER BRIDGE, SPECIFICALLY BETWEEN NORTH E St. & ELM St.
2. Possible Pedestrian area at same location as above, would be favorable

*Bob Johnson*

NAME/ADDRESS: Robert R Johnson

## Veldkamp, Keaton

---

**From:** Lee, Alexander  
**Sent:** Wednesday, November 4, 2020 11:38 AM  
**To:** Port, Juliet  
**Cc:** Miller, Daniel J; Veldkamp, Keaton  
**Subject:** FW: US 27 Bridge Replacement

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged



---

**From:** Lee, Alexander  
**Sent:** Monday, August 31, 2020 5:22 PM  
**To:** Jeffrey Locke <jlocke3805@gmail.com>  
**Cc:** Porter, Sean <Sean.Porter@parsons.com>; Miller, Daniel J <Daniel.J.Miller@parsons.com>  
**Subject:** US 27 Bridge Replacement

Councilor Locke,

The answer to the question, at this point Parsons has not subcontracted with any local companies. We are the engineering design lead supporting INDOT and there will be a separate contract to reconstruct the US 27 bridge (advertised in the 2022 timeframe). One of the ways we look at helping the local community was utilizing that venue (rented) which goes back into the community. Are there specific companies that are inquiring; we will work with INDOT as we get closer to letting that contract. If you have any further questions, please let me know. Much appreciated.  
Alex Lee

**Alexander Lee, AICP**  
Senior Environmental Planner

101 West Ohio Street, Suite 2121 - Indianapolis, IN 46204  
[alexander.lee@parsons.com](mailto:alexander.lee@parsons.com) – P: 317-616-1011 M: 571-294-4555

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**From:** Jeffrey Locke <[jlocke3805@gmail.com](mailto:jlocke3805@gmail.com)>  
**Sent:** Monday, August 31, 2020 5:03 PM  
**To:** Lee, Alexander <[Alexander.Lee@parsons.com](mailto:Alexander.Lee@parsons.com)>  
**Subject:** [EXTERNAL] US 27 Bridge Replacement

Alexander,

I'm Jeffrey Locke, a City Councilor in Richmond. I attended the open house in regards to the plans on the US 27 Bridge Replacement last Thursday at the 4th Floor Blues Club.

Question I have been asked, Will Parsons be sub contracting with any local companies on this project?.

Thank you for your time.

Jeffrey Locke, Councilor 5th District.  
Richmond

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## Veldkamp, Keaton

---

**From:** Leah Konicki <lkonicki@ascgroup.net>  
**Sent:** Friday, January 15, 2021 1:02 PM  
**To:** 'Melissa Vance'  
**Cc:** Port, Juliet; Means, Rachel  
**Subject:** [EXTERNAL] RE: Dual Review: FHWA Project: US 27 over Norfolk Southern Railroad (NSRR) and Local Streets Project; Des. No. 1702941; DHPA No.24879

Melissa,

In answer to your question, construction is anticipated for 2023 and possibly part of 2024.

Regarding working on half of the bridge at a time, phased construction (building portions at a time) is not a suitable option for this particular project since the entire bridge is being replaced. The piers on the north end are not conducive to phased construction.

Please let us know if you have other questions, and thank you for your interest.

Leah J. Konicki  
Project Manager/Principal Investigator - Architectural Historian

**ASC Group, Inc.**  
9376 Castlegate Drive  
Indianapolis, Indiana 46256  
317.915.9300 ext. 103 (office)  
317.565.9100 (cell)

---

**From:** Melissa Vance [mailto:Melissa@WCAreaChamber.org]  
**Sent:** Friday, January 15, 2021 9:35 AM  
**To:** Leah Konicki <lkonicki@ascgroup.net>  
**Subject:** RE: Dual Review: FHWA Project: US 27 over Norfolk Southern Railroad (NSRR) and Local Streets Project; Des. No. 1702941; DHPA No.24879

Hi Leah,

Thank you for the update on this project. While I am not looking forward to the construction itself, I am thrilled that we will have a new bridge, as it is much needed.

Could you remind me of the dates this is scheduled to be under construction? Also, is there any consideration to only working on half of the bridge at a time and keeping one lane each direction open during construction?

Thank you,

**Melissa Vance**  
**President/CEO**  
**Wayne County Area Chamber of Commerce**

---

**From:** Leah Konicki <lkonicki@ascgroup.net>  
**Sent:** Thursday, January 14, 2021 5:15 PM

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Subject: Dual Review: FHWA Project: US 27 over Norfolk Southern Railroad (NSRR) and Local Streets Project; Des. No. 1702941; DHPA No.24879

**Des. No.:** 1702941

**Project Description:** US 27 over Norfolk Southern Railroad (NSRR) and Local Streets Project

**Location:** Richmond, Wayne County

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the US 27 over Norfolk Southern Railroad (NSRR) and Local Streets Project. The Section 106 Early Coordination Letter for this project was originally distributed on January 9, 2020.

As part of Section 106 of the National Historic Preservation Act, an archaeology report has been prepared and is ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at <http://erms.indot.in.gov/Section106Documents/> [[erms.indot.in.gov](http://erms.indot.in.gov)] (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. Tribal consulting parties may enter the process at any time and are encouraged to respond to this notification with any comments or concerns at their earliest convenience.

Tribal contacts may contact Shaun Miller at [smiller@indot.in.gov](mailto:smiller@indot.in.gov) or 317-416-0876 or Kari Carmany-George at FHWA at [K.CarmanyGeorge@dot.gov](mailto:K.CarmanyGeorge@dot.gov) or 317-226-5629.

Thank you in advance for your input,

Leah J. Konicki  
Project Manager/Principal Investigator - Architectural Historian

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# Appendix H

## Air Quality

Indiana Department of Transportation (INDOT)  
 State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTR ACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Indiana Department of Transportation	41509 / 1702903	Init.	US 40	HMA Overlay Minor Structural	US 40, 0.49 mi W of US 27 NB ( 3rd St) to 0.58 mi E of US 27 NB (16th St) (WB One-way pr	Greenfield	1.069	NHPP		Road ROW	RW	\$48,000.00	\$12,000.00		\$60,000.00			
Performance Measure Impacted: Pavement Condition																		
Indiana Department of Transportation	41510 / 1702941	Init.	US 27	Bridge Replacement, Other Construction	OVER N&S RR, 5 STREETS, 00.30 miles N of US 40 WB	Greenfield	0	NHPP		Bridge Construction	CN	\$8,800,000.00	\$2,200,000.00				\$11,000,000.00	
										Bridge Consulting	PE	\$1,200,000.00	\$300,000.00	\$1,500,000.00				
										Bridge ROW	RW	\$240,000.00	\$60,000.00		\$300,000.00			
Indiana Department of Transportation	41786 / 1702065	Init.	SR 227	Bridge Deck Overlay	Over M Fork Whitewater River, 02.51 N I-70	Greenfield	0	STBG		Bridge Construction	CN	\$280,798.40	\$70,199.60	\$350,998.00				
Performance Measure Impacted: Bridge Condition																		
Indiana Department of Transportation	41799 / 1802050	Init.	US 40	Bike/Pedestrian Facilities	Curb Bump Outs US 40 (Main St) From 11th St (S Jct) to 15th St (S Jct)	Greenfield	.24	STBG		Safety Construction	CN	\$652,000.00	\$163,000.00			\$815,000.00		
										Safety Consulting	PE	\$40,000.00	\$10,000.00	\$50,000.00				
Performance Measure Impacted: Reliability and Freight Reliability																		
Indiana Department of Transportation	41801 / 1802056	Init.	US 35	Signing Installation / Repair	Curve Warning Signs US 35 from Richmond to Muncie	Greenfield	33.58	STBG		Safety Construction	CN	\$59,200.00	\$14,800.00			\$74,000.00		
Performance Measure Impacted: Safety																		
Indiana Department of Transportation	41885 / 1802064	Init.	US 40	Traffic Signal Visibility Improvements	Lane Realignment *Signal Visibility Funds US 40 at Elks Rd/S 37th St	Greenfield	0	STBG		Safety Construction	CN	\$32,000.00	\$8,000.00			\$40,000.00		
Performance Measure Impacted: Safety																		
Wayne County	42068 / 1802930	A 01	ST 4780	Bridge Rehabilitation Or Repair	Bridge #701 carrying South "G" Street over E Fork Whitewater River	Greenfield	.18	STBG	\$3,137,500.00	Local Funds	PE	\$0.00	\$90,000.00	\$90,000.00				
										Local Funds	RW	\$0.00	\$10,000.00			\$10,000.00		
										Local Funds	CN	\$0.00	\$527,500.00					\$527,500.00
										Local Bridge Program	PE	\$360,000.00	\$0.00	\$360,000.00				
										Local Bridge Program	RW	\$40,000.00	\$0.00			\$40,000.00		
										Local Bridge Program	CN	\$2,110,000.00	\$0.00					\$2,110,000.00
Performance Measure Impacted: Bridge Condition																		
Comments:No MPO - Add PE FY 20 Federal 360,000 and Local 90,000, Add RW FY 22 Federal 40,000 and Local 10,000, Add CN FY 24 Federal 2,110,000 and Local 527,500.																		



# Appendix I

## **Additional Studies**

# Bridge Inspection Report

027-89-02136 B  
US 27  
over  
N&S RR, 5 STREETS



Inspection Date: 04/21/2020

Inspected By: James F. Mickler

Inspection Type(s): Routine

Bridge Inspection Report

**GEOMETRIC DATA**

(48) LENGTH OF MAX SPAN: <b>0093.1 FT</b>	(35) STRUCTURE FLARED: <b>0 - No flare</b>
(49) STRUCTURE LENGTH: <b>00790.5 FT</b>	(10) INV RTE, MIN VERT CLEARANCE: <b>99.99 FT</b>
(50) CURB/SIDEWALK WIDTHS:	(47) TOT HORIZ CLEARANCE: <b>024.0 FT</b>
A) LEFT <b>04.0 FT</b>	(53) VERT CLEAR OVER BR RDWY: <b>99.99 FT</b>
B) RIGHT: <b>04.0 FT</b>	(54) MIN VERTICAL UNDERCLEARANCE:
(51) BRDG RDWY WIDTH CURB-TO-CURB: <b>048.0 FT</b>	A) REFERENCE FEATURE: <b>H</b>
(52) DECK WIDTH, OUT-TO-OUT: <b>061.0 FT</b>	B) MIN VERT UNDERCLEAR: <b>14.87 FT</b>
(32) APPROACH ROADWAY <b>052.0 FT</b>	(55) LATERAL UNDERCLEARANCE RIGHT:
(33) BRIDGE MEDIAN: <b>2 - Closed median (no barrier)</b>	A) REFERENCE FEATURE: <b>H</b>
(34) SKEW: <b>99 DEG</b>	B) MIN LATERAL UNDERCLEAR: <b>009.8 FT</b>
	(56) MIN LATERAL UNDERCLEAR ON LEFT: <b>00.0 FT</b>

**INSPECTIONS**

(90) INSPECTION DATE: <b>04/21/2020</b>	(91) DESIGNATED INSPECTION FREQUENCY: <b>12 MONTHS</b>
(92) CRITICAL FEATURE INSPECTION:	(93) CRITICAL FEATURE INSPECTION DATE:
A) FRACTURE CRITICAL REQUIRED/FREQUENCY: <b>N</b>	A) FRACTURE CRITICAL DATE:
B) UNDERWATER INSPECTION REQUIRED/FREQUENCY: <b>N</b>	B) UNDERWATER INSP DATE:
C) OTHER SPECIAL INSPECTION REQUIRED/FREQUENCY: <b>N</b>	C) OTHER SPECIAL INSP DATE:

**CONDITION**

(58) DECK: <b>6 - Satisfactory Condition (minor deterioration)</b>	(60) SUBSTRUCTURE: <b>4 - Poor Condition (advanced deterioration)</b>
(58.01) WEARING SURFACE: <b>6 - Satisfactory Condition</b>	(61) CHANNEL/CHANNEL PROTECTION: <b>N - Not Applicable</b>
(59) SUPERSTRUCTURE: <b>6 - Satisfactory Condition (minor deterioration)</b>	(62) CULVERTS: <b>N - Not Applicable</b>

**CONDITION COMMENTS**

**(58) DECK: 6 - Satisfactory Condition (minor deterioration)**

Comments:

Deck (underside): some leakage, transverse cracks & efflorescence at centerline longitudinal construction joint; metal forms except at centerline; heavy corrosion to forms around drains & scattered areas of heavy corrosion (~54 SF) .

**(58.01) WEARING SURFACE: 6 - Satisfactory Condition**

Comments:

Wearing surface (top of deck): transverse cracking; minor longitudinal cracks at SS joints over Bents #5 & 8; minor diagonal cracking at severely skewed joints; patching along all joints (294 SF); some longitudinal cracks.

Rating based mostly on the bottom side.

Bridge Inspection Report

**(59) SUPERSTRUCTURE: 6 - Satisfactory Condition (minor deterioration)**

Comments:

Elastomeric bearing pads below concrete box beams walking out in several spots:

- Abutment #1 - several shifting below NB lanes (1 CS2)
- Bent #3 - 1 sliding out at West end (CS2)
- Bent #4 - minor walking out (1 below NB & 4 SB - 3 CS2)
- Bent #15 - 2 walking out South side (1 ~50% not bearing - 1 CS2, 1 CS3)
- Bent #16 - 4 misaligned South side (2 in CS2)

Precast Concrete Box Beams: spans A-D, H-L & P-S.

Steel Beams: spans E-G, M & N; corrosion, pack rust & section loss to Beams #1-3 on South side of Bent #6 - worst at Beam #2 (CS2 6'). Heavy corrosion to diaphragms at West end of Bent #6.

**(60) SUBSTRUCTURE: 4 - Poor Condition (advanced deterioration)**

Comments:

Interior bent caps & concrete columns have quite a few areas of cracking, delaminations, spalling & rebar exposure - mostly below bridge joints (Bents #5, 6, 8, 12 & 14). Overall rating reduced to a '4' based on Bent Cap #6 & Column #3 at Bent #3. See Executive Summary for more details.

Collision damage to East end of Bent Cap #14 at "F" street - numerous hits, but only scrapes & minor spalls.

South abutment has 6 fairly wide vertical cracks.

Undermining material on slopewall - NW & NE corners.

**(61) CHANNEL/CHANNEL PROTECTION N - Not Applicable**

Comments:

**(62) CULVERTS: N - Not Applicable**

Comments:

**LOAD RATING AND POSTING**

(31) DESIGN LOAD:	<b>5 - HS 20</b>	(66) INVENTORY RATING:	<b>34</b>
(70) BRIDGE POSTING	<b>5 - Equal to or above legal loads</b>	(65) INVENTORY RATING METHOD:	<b>3 - Load and Resistance Factor (LRFR)</b>
(41) STRUCTURE OPEN/POSTED/CLOSED:	<b>A - Open</b>	(66B) INVENTORY RATING (H):	<b>22</b>
(64) OPERATING RATING:	<b>37</b>	(66C) TONS POSTED :	
(63) OPERATING RATING METHOD:	<b>3 - Load and Resistance Factor (LRFR)</b>	(66D) DATE POSTED/CLOSED:	

Bridge Inspection Report

**APPRAISAL**

SUFFICIENCY RATING:	38.3	(36) TRAFFIC SAFETY FEATURE:	
STATUS:	1	36A) BRIDGE RAILINGS:	1
(67) STRUCTURAL EVALUATION:	4	36B) TRANSITIONS:	1
(68) DECK GEOMETRY:	2	36C) APPROACH GUARDRAIL:	1
(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL:	6	36D) APPROACH GUARDRAIL ENDS:	1
(71) WATERWAY ADEQUACY:	N - Not Applicable		
Comments:			
(72) APPROACH ROADWAY ALIGNMENT:	8 - Equal to present desirable criteria		
Comments:			
(113) SCOUR CRITICAL BRIDGES:	N - Not over waterway		
Comments:			

**CLASSIFICATION**

(20) TOLL:	3 - On Free Road	(21) MAINT. RESPONSIBILITY:	01 - State Highway Agency
(22) OWNER:	01 - State Highway Agency	(26) FUNCTIONAL CLASS OF INVENTORY RTE:	12 - Urban - Principal Arterial - Other Freeway or Expressway
(37) HISTORICAL SIGNIFICANCE:	5 - Not eligible	(100) STRAHNET HIGHWAY:	Not a STRAHNET route
(101) PARALLEL STRUCTURE:	N - No parallel structure	(102) DIRECTION OF TRAFFIC:	2-way traffic
(103) TEMPORARY STRUCTURE:		(104) HIGHWAY SYSTEM OF INVENTORY ROUTE:	1 - Structure/Route is on NHS
(105) FEDERAL LANDS HIGHWAYS:	0-Not Applicable	(110) DESIGNATED NATIONAL NETWORK:	Inventory route on National Truck Network
(112) NBIS BRIDGE LENGTH:	Yes		

**NAVIGATION DATA**

(38) NAVIGATION CONTROL:	N - Not applicable, no waterway	(39) NAVIGATION VERTICAL CLEAR:	000.0 FT
(111) PIER OR ABUTMENT PROTECTION:		(116) MINIMUM NAVIGATION VERT. CLEARANCE, VERT. LIFT BRIDGE:	FT
		(40) NAV HORIZONTAL CLEARANCE:	0000.0 FT

**PROPOSED IMPROVEMENTS**

(75A) TYPE OF WORK:		(95) ROADWAY IMPROVEMENT COST:	\$ 000000
(75B) WORK DONE BY:		(96) TOTAL PROJECT COST:	\$ 000000
(76) LENGTH OF IMPROVEMENT:	00000.0 FT	(97) YR OF IMPROVEMENT COST EST:	
(94) BRIDGE IMPROVEMENT COST:	\$ 000000	(114) FUTURE AVG DAILY TRAFFIC:	022747
		(115) YR OF FUTURE ADT:	2030

# Abbreviated Engineering Assessment US 27 over NS Railroad and 5 Streets

Project No. 1702941

New Bridge File No. 027-89-02814

NBI No. 007200

Designation No. 1702941

Route Identification and Feature Crossed: US 27 over NS Railroad and 5 Streets

Project Location: 0.3 Miles North of WB US 40

Reference Point: 22+0.33

Wayne County, Indiana

**April 2020**

Prepared for:

Indiana Department of Transportation – Greenfield District

Prepared by:



101 West Ohio Street, Suite 2121

Indianapolis, IN 46204

Signed: \_\_\_\_\_

*Rachel Meems*

Date: **April 17, 2020**

## I. PROJECT LOCATION

This bridge replacement project is located on US 27 approximately 0.3 Miles North of US 40 WB, Wayne Township, Indiana in the Greenfield District. A project location map is shown in Appendix A.

## II. PROJECT NEED AND PURPOSE

The proposed project will replace the existing 17-span non-continuous prestressed box beam and steel beam structure over US 27 over Norfolk Southern Railroad (NSRR) and 5 Streets. The proposed bridge will address the condition issues on the existing bridge by providing a new cost-effective structure while considering safety for the travelling public, both vehicles and pedestrians, to cross over the railroad.

Numerous widespread issues are noted on the structure. If no action is taken, the condition of the structure will continue to deteriorate. The following issues will be addressed in this project.

- Existing span arrangement places unprotected piers in the middle of busy streets
- Existing complex geometry and triangular spans at the highly skewed crossing of Fort Wayne Avenue
- Existing sidewalks and adjacent staircases do not meet ADA requirements
- Existing curb offset and median width do not meet current design standards

## III. EXISTING FACILITY

The existing structure carries two travel lanes in each direction over NSRR and five local streets. Traffic was divided by a modified concrete center median which has since been removed, and 4'-0" sidewalks are present on both sides of the bridge. The northern roadway approach was recently resurfaced under Contract R-30397, and the final section consists of two travel lanes in each direction and widened, ADA compliant sidewalks. The southern roadway approach consists of two travel lanes in each direction with the SB lanes splitting west away from NB US 27 at N C Street. See Figure 1.0 for the existing bridge typical cross section.

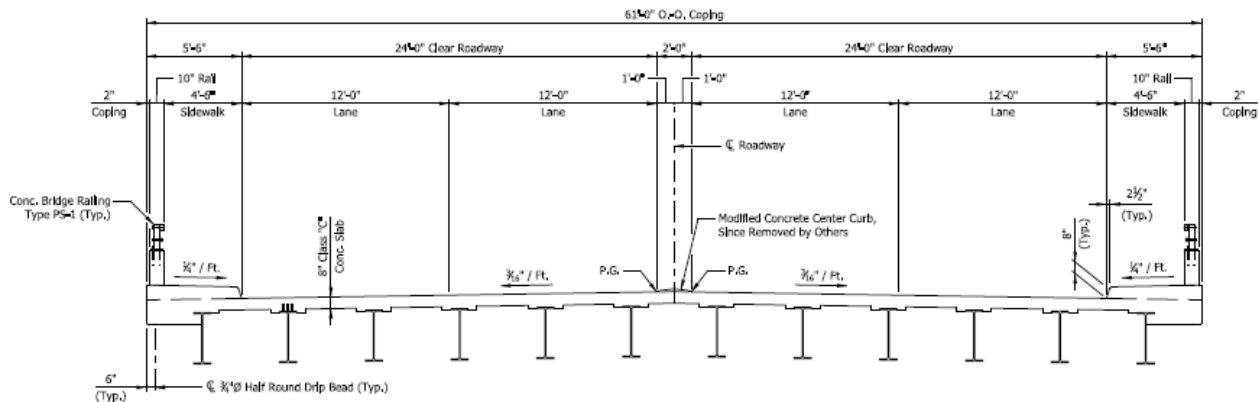


Figure 1.0 - Existing Bridge Typical Section

US 27 is classified as urban arterial (Built-Up) at this location and is part of the National Highway System (NHS). The structure was built on a vertical curve and the existing speed limit on the structure is 35mph.

## IV. CRASH DATA

Crash Data was analyzed in the Engineer’s Report in 2019. The crash data provided by INDOT for this safety analysis includes all identified incidents in Wayne County between 2016 and 2018. The data includes specific information involved with each crash incident, including weather, surface conditions, latitude and longitude, severity, and manner of collision. The raw crash data was filtered to obtain crashes within the project limits and includes crashes on US 27 between North H Street and North D Street.

These filters result in 1 applicable crash in the project area over the three-year analysis period. It is a rear-end Property Damage Only (PDO) crash during the day with clear weather. The primary factor for the crash was stated to be animal or object in the roadway.

On evaluating the roadway segment using RoadHAT, the ICF and ICC are found to be -0.71 and -0.52 respectively. Since both ICF and ICC are less than 0.0 (below the IDM requirement of 1.0), the roadway segment analyzed is performing better than expected in regard to safety in its existing condition. There is no direct connection between any roadway or bridge deficiency and crash rate. Therefore, no countermeasures or corrections are identified as a part of this safety analysis.

## V. TRAFFIC DATA

Traffic data was provided by INDOT and is summarized in Table 1 below.

Table 1: US 27 Traffic Data

DATA	TRAFFIC COUNT
AADT (2022)	14,077 V.P.D.
AADT (2042) Projected	15,773 V.P.D.
DHV (2042)	1,486 V.P.H.
Trucks	5% D.H.V., 10% A.A.D.T.

## VI. DESIGN CRITERIA

The proposed structure will be designed according to the Indiana Design Manual (IDM), Design Memos, and the AASHTO LRFD Bridge Design Specifications, 8th Edition and all Interims and Errata. In addition, design will conform to INDOT’s standard details, specifications, policies, and procedures in U.S. Customary Units. Current INDOT design criteria will be used for design of the replacement structure, and all Level One criteria will be documented. This project is classified as 4R New construction/Reconstruction criteria and will utilize IDM Fig. 53-6.

## VII. ALTERNATIVES

The recommended structure type and span layout was determined in the previously submitted Engineer’s Report. Three superstructure types were considered for the Stage 1 submittal Structure Size and Type (SST) Report in Appendix B. The following is a description of each alternative.

### Alternative 1: An eight span, composite, prestressed hybrid bulb-tee beam structure with reinforced concrete deck.

The proposed superstructure for this alternative is comprised of six 72” x 49” prestressed concrete hybrid bulb-tee beams spaced at 10’-6”.

Proposed supports 1 through 7 will be constructed in parallel with varying skew to the roadways. Supports 8 and 9 will be constructed to a 55.75° skew, to parallel Fort Wayne Avenue and minimize span length and beam depth. Span lengths are such that unprotected piers in the roadway are removed and sufficient horizontal clearance for the railroad is provided.



Span A is 65'-0", Span B is 75'-0", Span C is 89'-0", Span D is 69'-0", Span E is 112'-0", Span F is 48'-0", Span G is variable, and Span H is 150'-0".

**Alternative 2: An eight span, W-shape beam and hybrid steel plate girder with reinforced concrete deck.**

The proposed superstructure for this alternative is comprised of nine hot rolled steel w-beams or hybrid steel plate girders spaced at 6'-11". The minimum beam depth is 27" and the maximum beam depth is 44".

Proposed supports 1 through 7 will be constructed in parallel with varying skew to the roadways. Supports 8 and 9 will be constructed to a 55.75° skew, to parallel Fort Wayne Avenue and minimize span length and beam depth. Span lengths are such that unprotected piers in the roadway are removed and sufficient horizontal clearance for the railroad is provided. The proposed MSE wall will have a chamfered corner on the northwest corner of the new bridge to ensure backfill compaction is adequate and in accordance with standard specifications. Span A is 65', Span B is 75'-0", Span C is 89'-0", Span D is 69'-0", Span E is 112'-0", Span F is 48'-0", Span G is variable, and Span H is 150'-0".

**Alternative 3: A seven span, W-shape beam and hybrid steel plate girder with reinforced concrete deck.**

The proposed superstructure for this alternative is comprised of nine hot rolled steel w-beams or hybrid steel plate girders spaced at 6'-11". The minimum beam depth is 27" and the maximum beam depth is 59".

Proposed supports 1 through 8 will be constructed approximately radial to the US 27 alignment and eliminates the severe skew at Fort Wayne Avenue. Span lengths are such that unprotected piers in the roadway are removed, sufficient horizontal clearance for the railroad is provided, and end bent 8's skew is minimized to simplify MSE wall construction. Span A is 65', Span B is 75'-0", Span C is 89'-0", Span D is 69'-0", Span E is 112'-0", Span F is 122'-6", and Span G is 193'-6". Pier 7 will overhang a portion of NB Fort Wayne Avenue on the west side of the bridge but will meet vertical clearance requirements for the roadway.

**Option 3A : Linearly Haunched (Variable Depth Web) Steel Plate Girders**

Keeping the same span layout as Alternative 3, this option utilizes linearly haunched steel plate girders in lieu of hot rolled steel W-beams to address the shallow beam depth needed to meet vertical clearance requirements over Elm Place.

**Option 3B: No Pier Cap Overhanging Fort Wayne Avenue**

This option revises the Alternative 3 span layout on the north end so Span F is 98'-6", and Span G is 217'-6". Piers remain radial to the alignment but will not overhang Fort Wayne Avenue.

**Option 3C: Extending Span A to the South**

In order to bypass existing Abutment 1, this option extends Span A to the south and constructs a new end bent without disturbing the retaining wall system. All other spans remain the same but Span A is 75'-4".

## **VIII. DESIGN CONCEPT AND DISCUSSION OF ALTERNATIVES**

Each alternative was analyzed to ensure the structure type was a viable option for this specific site. The initial Engineer's Report for this project laid out the bridge deck geometry and number of spans, and the SST report analyzes what superstructure type will best suit the project location and provide the best value.

Alternatives were designed to provide the most cost-effective solution, while striving to meet the design constraints of this location. Beam sizes were selected to meet the railroad and roadway vertical clearance requirements discussed in the Design Criteria section.

Pier placement for proposed span layouts plays a crucial role in this bridge's design. The existing bridge crosses Elm Place, alley connecting Elm Place and N E Street, N E Street, two Norfolk Southern Railroad tracks, Fort Wayne Avenue, and N F Street. As decided in the Engineer's Report, the proposed bridge will permanently close a portion of N F Street to eliminate

vertical clearance and sight distance issues at that location. Proposed piers are placed outside of the 25' horizontal clearance required for the railroad tracks and will not require crash walls. The alley connecting Elm Place and N E Street is under discussion with the City of Richmond. INDOT would prefer this area be converted to a pedestrian only area. Coordination is ongoing, and as such, the area is shown as existing pavement to remain and minimum vertical clearance has been provided until this decision is made.

Alternative 1 was eliminated for the significant increase in cost due to the grade raise required to accommodate the 72" concrete hybrid bulb-tee beams.

Alternative 2 creates minimal impacts to the roadway approaches and provides minimum vertical clearance for all roadways and railroad tracks. However, the complexity due to the severe skew at Fort Wayne Avenue is undesirable to the District. Alternative 3 eliminates the skew, reduces complexity, and increases the cost by only 1.2%. Therefore, Alternative 2 is eliminated in favor of the less complex Alternative 3.

Alternative 3 provides a seven-span structure with all radial supports, eliminating the severe skew and associated maintenance issues. The Pier 7 pier cap will overhang NB Fort Wayne Avenue but has sufficient room in the profile to provide minimum vertical clearance without requiring a post-tensioned cap.

Options 3A and 3C are dependent on further investigations in future design and will be reconsidered once investigations are complete. Option 3B was eliminated due to increased cost and complexity of the post-tensioned pier cap required to meet vertical clearance.

**For more in depth discussion of all alternatives, see the SST Report in Appendix B.**

## **IX. IDENTIFICATION OF PROPOSAL**

Existing Structure No. 027-89-02136 B is currently in need of substantial rehabilitation or replacement. Based on the aforementioned information and the previously approved Engineer's Report, it was determined that a full replacement is the most appropriate option. The new US 27 over NSRR and 5 Streets structure will resolve condition problems with the existing structure and improve pedestrian safety.

The recommended alternate proposed to carry US 27 over NSRR and 5 Streets is a seven-span structure with W-shaped beams and Hybrid Steel Plate Girders. The cost estimate is included in Appendix B in the SST Report. This bridge replacement project will be completed under Des. No. 1702941, contract B-41510.

The structure will have a total bridge clear roadway width of 52'-6", consisting of four 12'-0" travel lanes, a 2'-6" shoulder on the east coping, and 2'-0" curb offset on the west, adjacent to the sidewalk. The proposed 6'-6" sidewalk on the west coping meets ADA requirements and achieves the pedestrian safety goals of the project. The total out-to-out coping width will be 61'-0" and the 8" reinforced concrete deck will have a 2.0% cross slope. Type PS-1 and PF-1 bridge railings will be used for MASH compliance and pedestrian safety.

## **X. COST ESTIMATE**

The three alternatives and the associated costs are listed below. The preferred alternative is Alternative 3: **7-Span Hybrid Steel Plate Girder Replacement**. The preliminary cost estimate for the proposed replacement structure including roadway costs and a 20% contingency is \$14,929,115.92

#### XIV. CONCURRENCE

The aforementioned information regarding US 27 over Norfolk Southern Railroad and 5 Streets (Des. 1702941) has been agreed upon by:



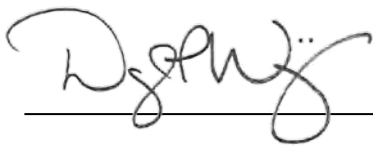
9/18/2020

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Signature

Date

Nathan Riggs, Greenfield District Project Manager



9/22/2020

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Signature

Date

Darryl Wineinger, Bridge Asset Engineer




09/18/2020

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Signature

Date

Aschalew Aberra, Scoping Manager



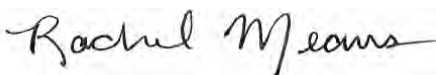
9/24/2020

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Signature

Date

Amy Groff, System Assessment Manager



April 17, 2020

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Signature

Date

Rachel Means P.E., Parsons Bridge Design Lead

A subsurface investigation will be performed for this project. It is assumed that a combination of spread footings and drilled shafts will support the bents and piers mentioned in this report. For this report, it is assumed that supports 1-5 will be spread footings and supports 6-9 will be drilled shafts. Because the geotechnical report has not been completed at the time of this submittal, engineering judgement, past experience, and the existing bridge plans were used to estimate the dimensions of the spread footings and the number and length of the drilled shafts.

## ECONOMIC ANALYSIS

### CONSTRUCTION COST COMPARISON

The major items affecting the cost of the structure were computed for the three alternatives. Steel is shown to be the more cost-effective choice due to the grade raise required for Alternative 1. For this Stage 1 design submittal, percentages have been used to capture many costs. For calculations of these costs, see Appendix B.

Alternative 1: Eight-Span Prestressed Concrete Hybrid Bulb Tee	\$15,460,436.39
Alternative 2: Eight-Span W-beam & Steel Plate Girder (Skewed Piers at Fort Wayne Avenue)	\$14,905,436.39
Alternative 3: Seven-Span W-beam & Steel Plate Girder (No Skew for Fort Wayne Avenue)	\$14,929,115.92

### ALTERNATIVE COMPARISON SUMMARY

	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
<b>STRUCTURE TYPE</b>	72" x 49" Composite Prestressed Concrete Hybrid Bulb-Tee Beam	W-Beam & Steel Plate Girder Variable 25" to 44"	W-Beam & Steel Plate Girder Variable 25" to 59"
<b>NUMBER OF SPANS</b>	8	8	7
<b>TRAFFIC LANES</b>	Four 12'-0" travel lanes, 2'-6" east shoulder, 2'-0" curb offset, and 6'-6" sidewalk	Four 12'-0" travel lanes, 2'-6" east shoulder, 2'-0" curb offset, and 6'-6" sidewalk	Four 12'-0" travel lanes, 2'-6" east shoulder, 2'-0" curb offset, and 6'-6" sidewalk
<b>DESIGN TRUCK</b>	HL-93	HL-93	HL-93
<b>STRUCTURE WIDTH</b>	61'-0"	61'-0"	61'-0"
<b>NUMBER OF BEAMS</b>	6	9	9
<b>STRUCTURE DEPTH (APPROX.)</b>	7'-5 1/2"	Varies (5'-1 1/2" Max)	Varies (6'-4 1/2" Max)
<b>CONSTRUCTION COST</b>	\$15,460,436.39	\$14,905,436.39	\$14,929,115.92
<b>CONSTRUCTABILITY</b>	Varying beam depth requirements means this bridge must be constructed as non-continuous.	Field splices will be required due to shipping length constraints and varying plate girder sizes.	Field splices will be required due to shipping length constraints and varying plate girder sizes.
<b>MAINTENANCE</b>	Precast hybrid bulb-tee beams are durable to the elements.	Weathering steel is durable to the elements and requires less upkeep than painted steel. Painted steel would not be allowed over the railroad.	Weathering steel is durable to the elements and requires less upkeep than painted steel. Painted steel would not be allowed over the railroad.
<b>SPEED OF CONSTRUCTION</b>	The additional road work required for the large grade raise will increase the overall construction time and impact to the Historic District.	Lead time for steel plate girder fabrication is often greater than concrete beam fabrication.	Lead time for steel plate girder fabrication is often greater than concrete beam fabrication.

Note: Foundation types are anticipated to be a combination of spread footings and drilled shafts for all alternatives, pending geotechnical investigation.

## LIFE CYCLE ANALYSIS

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In order to get the true cost of each alternative, life cycle costs must be analyzed. The net present value can then be calculated. Each alternative's net present value costs are summarized below. For calculations of these costs, see Appendix B.

	NET PRESENT VALUE (NPV)
ALTERNATIVE 1: EIGHT-SPAN PRESTRESSED CONCRETE HYBRID BULB TEE	\$18,722,753
ALTERNATIVE 2: EIGHT-SPAN W-BEAM & STEEL PLATE GIRDER (SKEWED PIERS AT FORT WAYNE AVENUE)	\$15,888,641
ALTERNATIVE 3: SEVEN-SPAN W-BEAM & STEEL PLATE GIRDER (NO SKEW FOR FORT WAYNE AVENUE)	\$16,009,026

## RECOMMENDATIONS

Alternative 3, the seven-span structure with hybrid steel plate girders, is the preferred alternative for a least complex, cost-effective, low maintenance structure. **The total construction costs, including contingency, for Alternative 3 is \$14,929,115.92.**

## Section 4(f) Analyses

June 9, 2021

Loop Project (Des. 1702679), North 10<sup>th</sup> Street Park, and Recommended Chester Boulevard Multi-Use Trail  
US 27 over NSRR and Local Streets  
Richmond, Wayne County  
Des. No. 1702941

### Introduction

The Indiana Department of Transportation (INDOT) is planning a bridge replacement project in downtown Richmond, Indiana at US 27 (locally known as Chester Boulevard) over the Norfolk Southern Railroad (NSRR) and local streets. Project location and annotated aerial maps are provided in the Attachments, pages 1 to 4. Parsons is preparing a Level 4 Categorical Exclusion (CE-4) document. In addition to resources covered under the Section 106 process, there are three potential Section 4(f) resources that are within or adjacent to the project area, which are discussed further below.

### “Complete Streets Loop Project”, Des. 1702679 (Loop Project)

The City of Richmond’s Loop Project is planned for construction along the south side of North E Street beneath the US 27 bridge (Attachments, page 2). Construction is planned for 2022. This bridge replacement is scheduled for construction the following year in 2023. The segment within the project area will consist of a 6-foot wide reconstructed concrete sidewalk and an 8-foot wide decorative concrete bike lane off-set from parking and through-lanes by curb and gutter.

### Is the Loop Project within the project area a Section 4(f) Resource?

- It is publicly owned on City of Richmond right-of-way (ROW) along North E Street. (The local streets and alley beneath the bridge are not owned by INDOT; they are the City’s).
- The *Richmond Parks and Recreation Master Plan* was adopted on October 22, 2020<sup>1</sup> (*Park Master Plan*) (Attachments, pages 5 to 6). It states the Loop Project “was designed to create a balanced transportation system” (Attachments, page 9).

Per the Federal Highway Administration (FHWA) *Section 4(f) Policy Paper*<sup>2</sup>,

FHWA must comply with 23 CFR 774.13(f) when determining if a Section 4(f) approval is necessary for the use of a trail, path, bikeway, or sidewalk. If the publicly owned facility is primarily used for transportation and is an integral part of the local transportation system, the requirements of Section 4(f) would not apply since it is not a recreational area. Section 4(f) would apply to a publicly owned, shared use path or similar facility (or portion thereof) designated or functioning primarily for recreation, unless the official(s) with jurisdiction determines that it is not significant for such purpose. During early consultation, it should be determined whether or not a management plan exists that addresses the primary purpose of the facility in question.

Since the *Park Master Plan* identifies the facility as part of the local transportation system, the requirements of Section 4(f) do not apply. Nonetheless, the proposed impacts to this facility have been reduced and minimized during the preliminary design and related stakeholder meetings (Attachments, pages 12 to 13), which will be detailed in the CE-4 under the Project Description (preferred alternative) and Community Impacts sections.

### North 10<sup>th</sup> Street Park

The North 10<sup>th</sup> Street Park is adjacent to the northern portion of the project area (Attachments, pages 3 to 4). According to the *Park Master Plan*<sup>1</sup>, it is a “mini park”; furthermore,

While North 10th Street Park is considered a park, it’s really more of a right-of-way between two major roadways that the Parks Department maintains. The busy vehicular traffic on both sides of the park creates potential for pedestrian/vehicular conflicts and detracts from the park-like setting. Other than

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<sup>1</sup> Source: City of Richmond, *Richmond Parks and Recreation Master Plan*, October 22, 2020  
<https://www.richmondindiana.gov/resources/parks-recreation-master-plan>

<sup>2</sup> Source: FHWA, *Section 4(f) Policy Paper*, July 20, 2012 <https://www.environment.fhwa.dot.gov/legislation/section4f/4fpolicy.pdf>

open lawn areas, there aren't any amenities offered at the park; the park is rarely used, and many people don't know it exists. (Attachments, page 7).

Based on its public ownership and identification as a park, North 10<sup>th</sup> Street Park is a Section 4(f) Resource. An early coordination letter was sent to the City of Richmond Parks and Recreation Department on January 15, 2020, and no response was received.

Access to the park will be slightly impacted by this project (Attachments, pages 3 and 11):

- The block of North F Street between North 9<sup>th</sup> Street and Fort Wayne Avenue will be permanently closed to motorists.
- New sidewalk will be constructed south of the new bridge abutment to connect Fort Wayne Avenue to North F and North 9<sup>th</sup> streets, providing pedestrians continued east-west access through the area.
- The existing pedestrian facilities on US 27 will be upgraded by the removal of the eastern sidewalk and staircase, and replacement of the western sidewalk with a 6.5-foot wide sidewalk that meets current standards, including ADA.
- The western pedestrian staircase will remain.

These changes in access will not adversely affect North 10<sup>th</sup> Street Park. There is a grid of local streets that will continue to provide motorists with access to the park, and pedestrian access will be improved by upgrading facilities to current standards. All work will occur within existing INDOT ROW. The only park feature beyond open lawn is a stone monument, located approximately 70 feet east of the project area, which will not be disturbed.

The project will not use this resource by taking permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Therefore, no Section 4(f) use is expected.

#### **Recommended Chester Boulevard Multi-Use Trail**

The 2015 *City of Richmond Bicycle and Pedestrian Master Plan*<sup>3</sup> (*Bike/Ped Master Plan*) recommends a potential multi-use trail segment along US 27, locally known as Chester Boulevard, through the project area (from Sim Hodgkin Parkway to North E Street) (Attachments, pages 14 to 16). Note, the southern terminus would likely need to extend to the end of the structure's southern approach and tie-in at North D Street, under both existing and proposed conditions.

#### 1) Is the recommended multi-use trail a Section 4(f) Resource?

- Based on coordination with the City of Richmond, this project has not been programmed (Attachments, pages 19 to 21).
- As shown in the *Bike/Ped Master Plan*, the recommended trail alignment is along INDOT ROW for US 27 (Chester Boulevard) (Attachments, page 15).

The FHWA *Section 4(f) Policy Paper*<sup>1</sup> states the following:

**Do the requirements of Section 4(f) apply to publicly owned properties planned for park, recreation area, or wildlife refuge and waterfowl refuge purposes, even though they are not presently functioning as such?** Section 4(f) applies when the land is one of the enumerated types of publicly owned lands and the public agency that owns the property has formally designated and determined it to be significant for park, recreation area, or wildlife and waterfowl refuge purposes. Evidence of formal designation would be the inclusion of the publicly owned land, and its function as a Section 4(f) property into a city or county Master Plan. A mere expression of interest or desire is not sufficient. For example, when privately held properties of these types are formally designated into a Master Plan for future park development, Section 4(f) is not applicable. The key is whether the planned facility is presently publicly owned, presently formally-designated for Section 4(f) purposes, and presently significant. When this is the case, Section 4(f) would apply.

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<sup>3</sup> Source: City of Richmond, *City of Richmond Bicycle and Pedestrian Master Plan*, June 2015  
<https://www.richmondindiana.gov/resources/bicycle-and-pedestrian-master-plan>

Since the recommended trail is not programmed, the requirements of Section 4(f) do not apply. The potential resource will be discussed in the Public Involvement and Community Impacts sections of the CE-4.

- The construction of this project would not alter the City of Richmond's ability to develop a future multi-use trail along this section of US 27 compared to current conditions.
- Since the existing pedestrian facilities are substandard and do not meet ADA, the new bridge would have a 6.5-foot-wide sidewalk along the western side that meets ADA.
- There were no responses to early coordination regarding this potential trail segment.
- One member of the public who helped with the *Bike/Ped Master Plan* asked about this trail segment during the public information meeting, requesting access for bicyclists along US 27 (Attachments, pages 17 to 18).



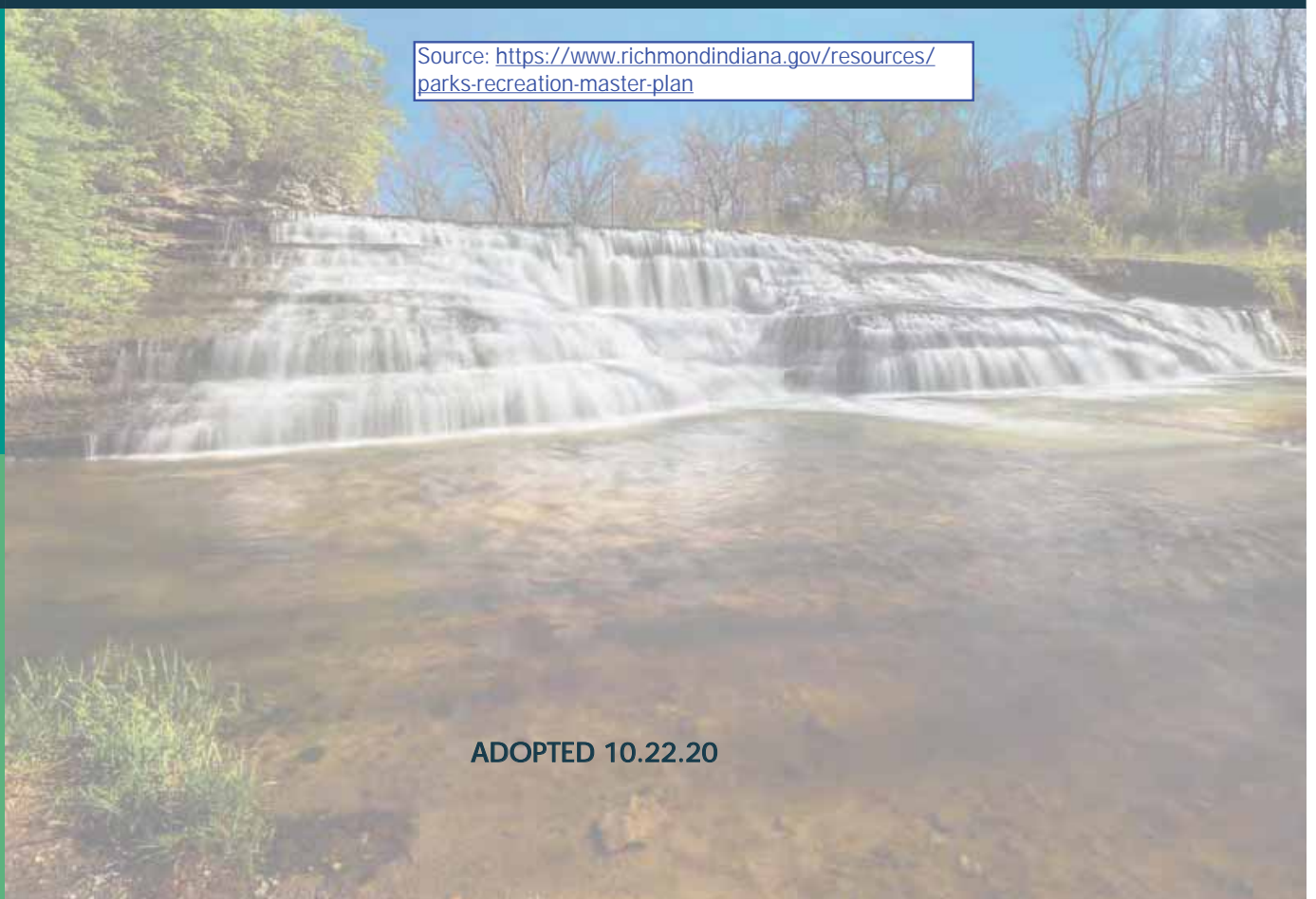


PASSION FOR PARKS

# **RICHMOND**

*Parks and Recreation Master Plan*

Source: <https://www.richmondindiana.gov/resources/parks-recreation-master-plan>



ADOPTED 10.22.20

Agenda Item Resolution 1- 2020

Board of Parks and Recreation for the  
City of Richmond, Indiana  
and

Be it Resolved That the Board Hereby Approves:

**Approval from the Parks Board of the 2020 Richmond Parks and Recreation Master Plan.**

Calling for:

**approval from the Parks Board for the Richmond Parks and Recreation Master Plan for 2020 drafted with substantial public involvement and input, and incorporates sound planning principles and staff expertise.**

The form of which is to be approved by the Department attorney, be and is hereby APPROVED.

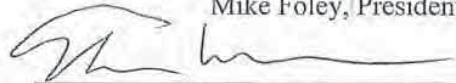
FURTHER RESOLVED, THAT THE Park Superintendent of the Department of Parks and Recreation is hereby authorized to execute such agreement for and in behalf of the Department.

Passed and signed this \_\_\_ day of October, 2020.

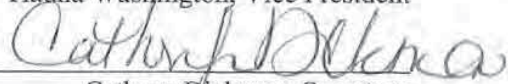
**BOARD OF PARKS AND RECREATION  
CITY OF RICHMOND**



Mike Foley, President



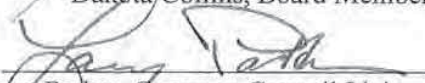
Tiauna Washington, Vice President



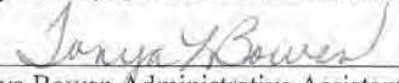
Cathryn Dickman, Secretary



Dakota Collins, Board Member

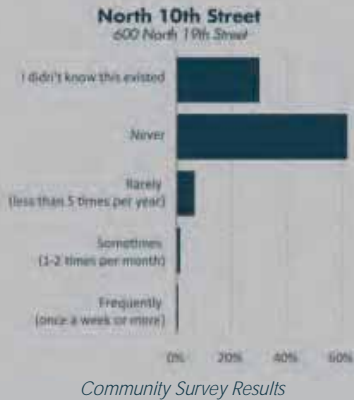


Larry Parker, Common Council Liaison



Attest, Tonya Bowen Administrative Assistant

COMMUNITY USE



ADA COMPLIANCE

- ✘ Approaches & Entrances  
Not Compliant
- Restrooms  
Not Applicable
- ✘ Parking  
Not Compliant
- Play Areas  
Not Applicable
- Sports Courts / Facilities  
Not Applicable
- Water Amenity Areas  
Not Applicable

*Refer to the Technical Appendix for detailed information on each park/ facility.*

NORTH 10<sup>TH</sup> STREET PARK

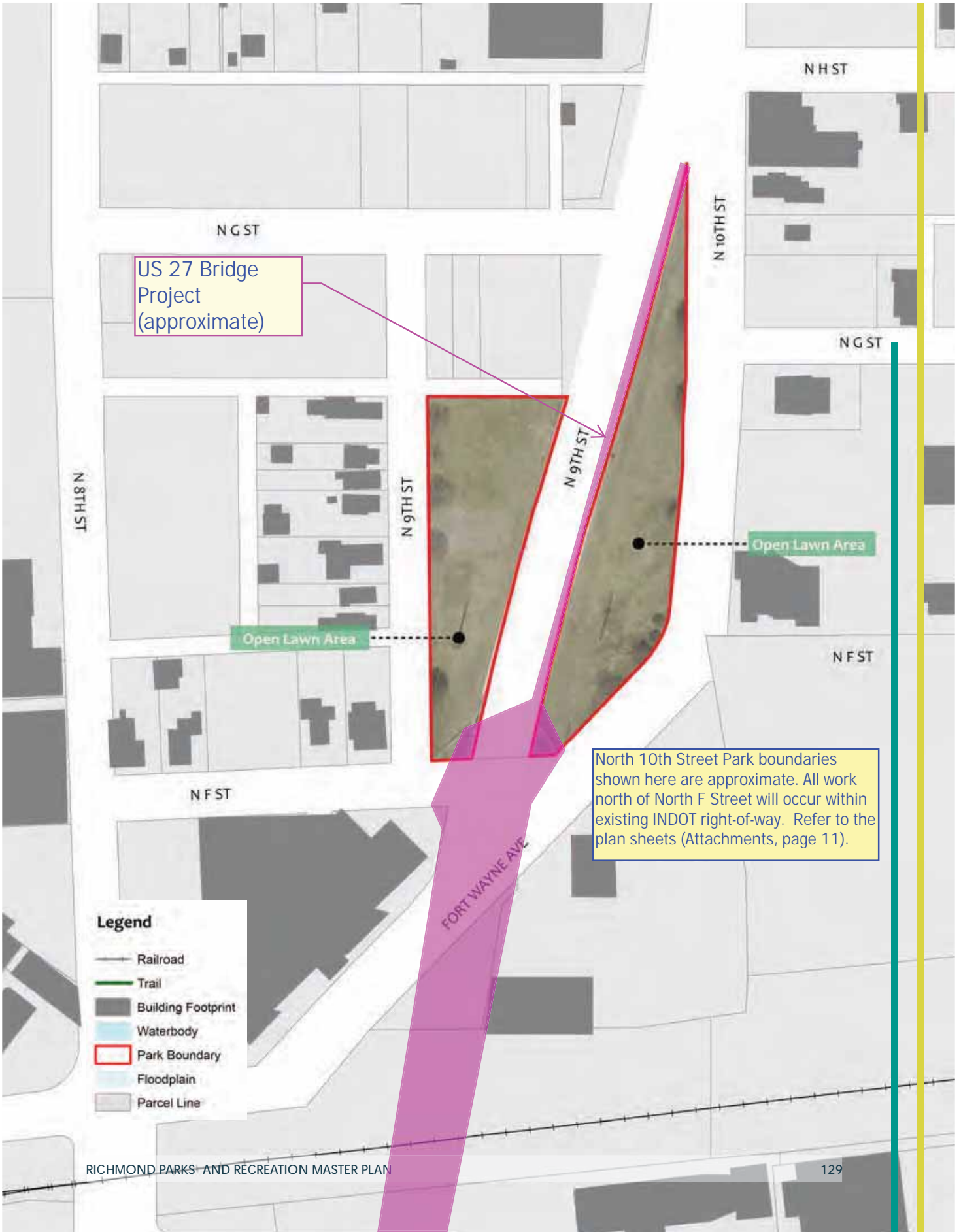
*North Planning Area | Mini Park*

North 10<sup>th</sup> Street Park is a 1.2-acre mini-park located in an industrial area between North F and G Streets at 600 North 10<sup>th</sup> Street. The park is surrounded by heavily-traveled streets and is bisected by the US 27 Highway overpass.

Formerly a cemetery, the land was acquired by the State of Indiana in 1952 to build a highway over the railroad tracks. The unused land was returned to the City in 1959 to be used as a park. The park originally included a playground, a basketball court and a baseball diamond; however, these facilities were removed and open lawn areas are the only amenity that remains. A monument depicting the former grave site of the Hoover Family is located on the east side of the park between the US 27 Highway Overpass and Chester Blvd.

PARK ANALYSIS

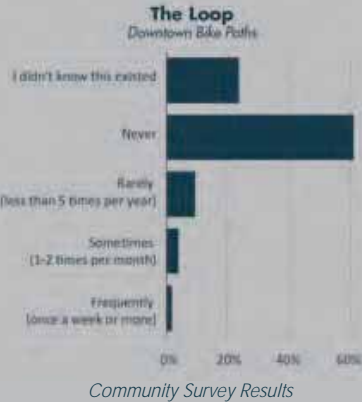
While North 10<sup>th</sup> Street Park is considered a park, it's really more of a right-of way between two major roadways that the Parks Department maintains. The busy vehicular traffic on both sides of the park creates potential for pedestrian/vehicular conflicts and detracts from the park-like setting. Other than open lawn areas, there aren't any amenities offered at the park; the park is rarely used, and many people don't know it exists.



North 10th Street Park boundaries shown here are approximate. All work north of North F Street will occur within existing INDOT right-of-way. Refer to the plan sheets (Attachments, page 11).

- Legend**
- Railroad
  - Trail
  - Building Footprint
  - Waterbody
  - ▭ Park Boundary
  - Floodplain
  - ▭ Parcel Line

COMMUNITY USE



ADA COMPLIANCE

- ✓ Approaches & Entrances  
Compliant
- Restrooms  
Not Applicable
- ✗ Parking  
Not Compliant
- ✓ Trail Surface  
Compliant

*Refer to the Technical Appendix for detailed information on each park/ facility.*

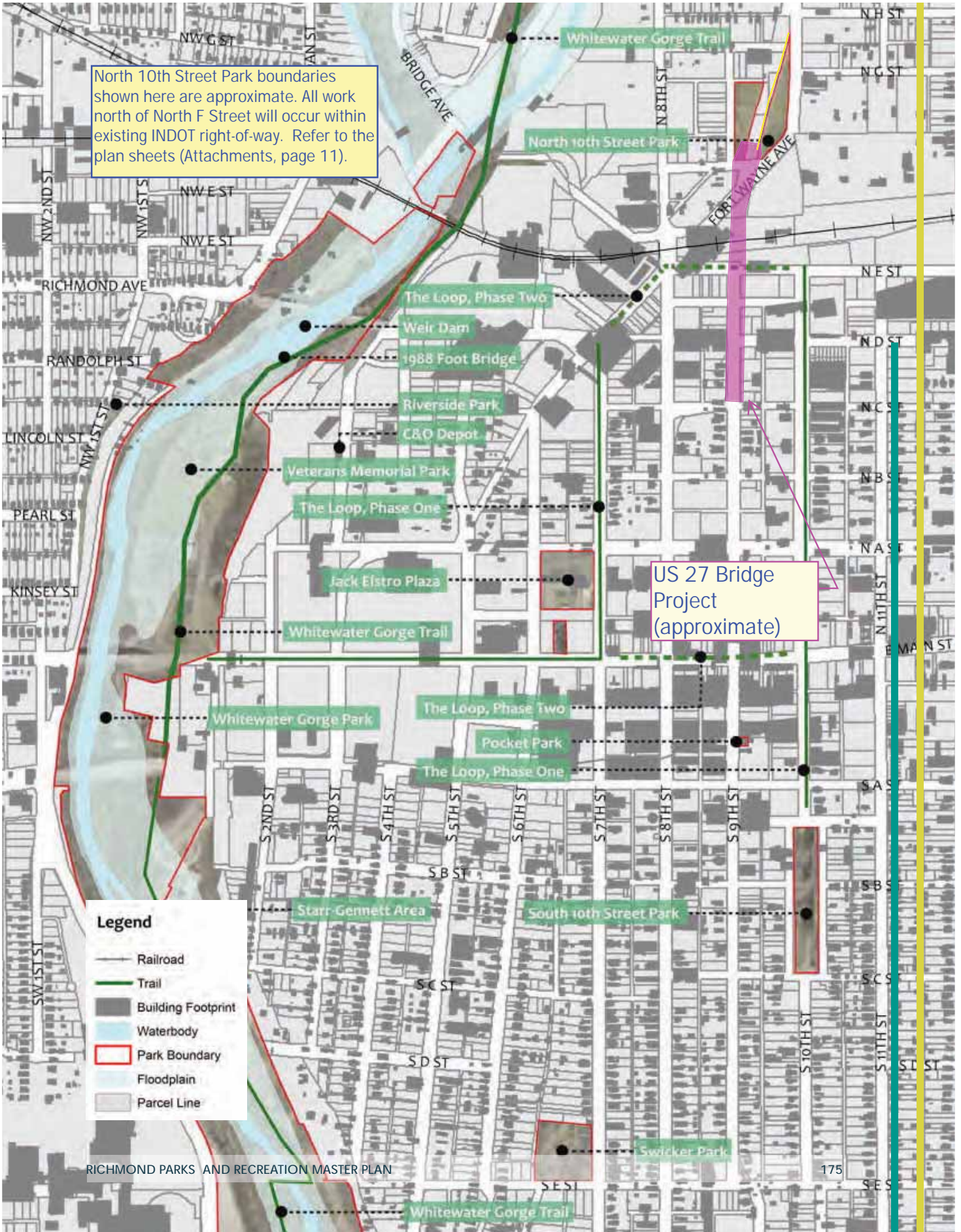
THE LOOP

Center City Planning Area | Trail

The Loop, a Stellar Communities project, was designed to create a balanced transportation system that provides safe, accessible and efficient connections between destinations that boost economic growth and stability and increase property values in Richmond. It is a protected bike path separated from other modes of travel that winds through Richmond’s downtown and the Depot District. When finished, the route will extend along the south side of East Main Street from 1<sup>st</sup> to 7<sup>th</sup> Streets, the west side of North 7<sup>th</sup> Street from East Main Street to Fort Wayne Avenue and the east side of North 10<sup>th</sup> Street from 10<sup>th</sup> Street Park to N E Street.

PARK ANALYSIS

The construction of The Loop has prompted concern within the community, largely because of the intended use, and priority of the project were not understood by the community. Education around the amenity and the way in which it benefits the residents of Richmond could be critical to the success of the project. Further, there is a need for additional signage and future programming to activate the corridor.

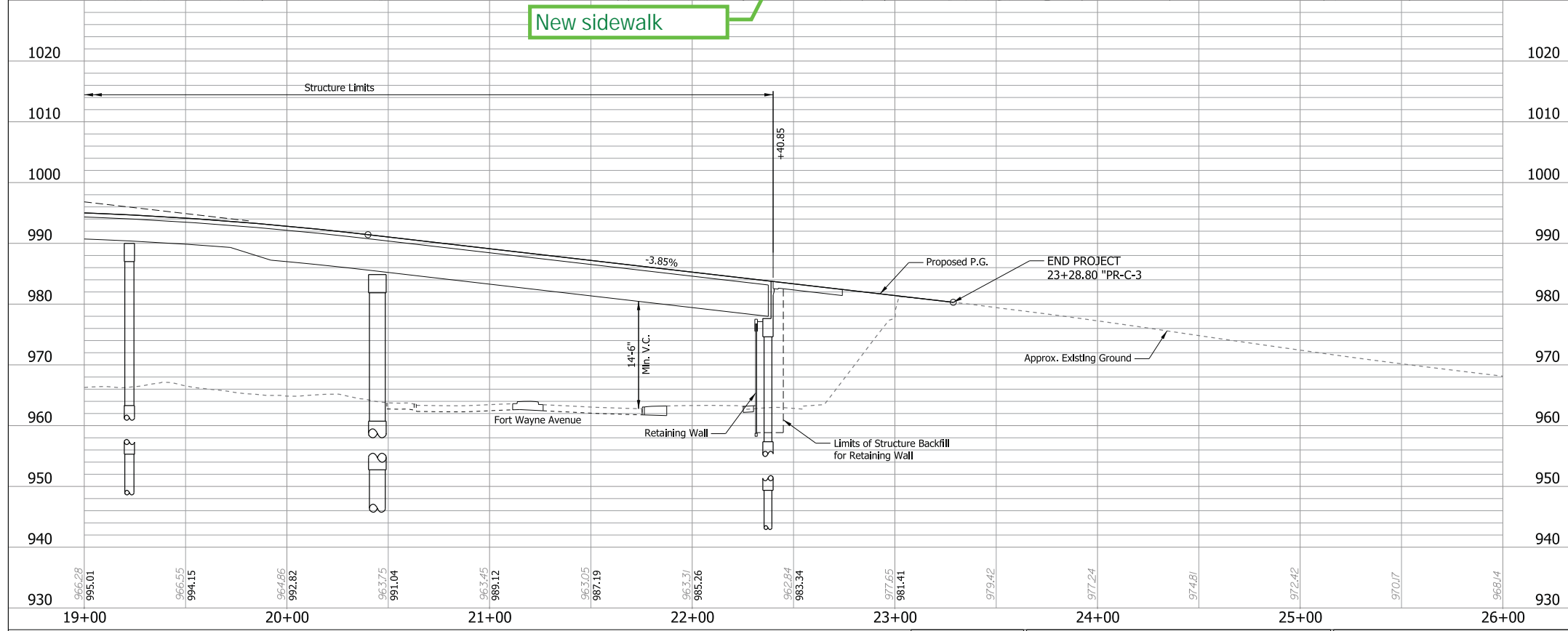
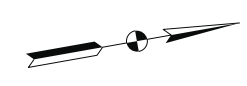
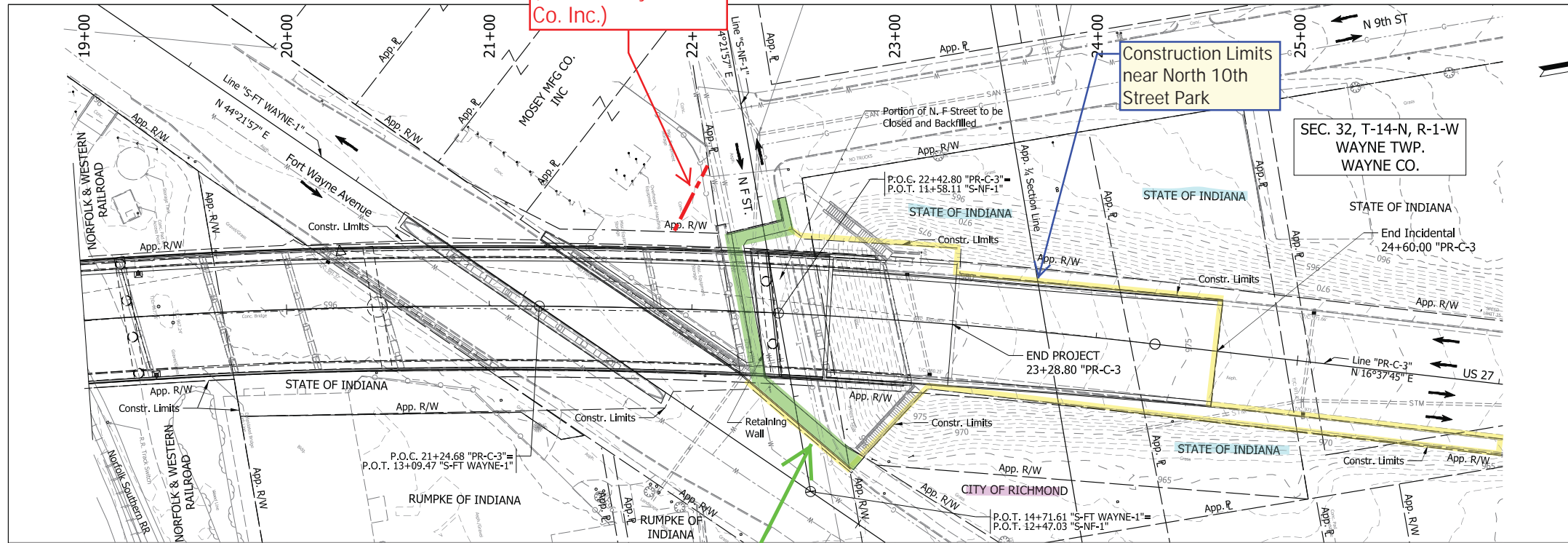


North 10th Street Park boundaries shown here are approximate. All work north of North F Street will occur within existing INDOT right-of-way. Refer to the plan sheets (Attachments, page 11).

US 27 Bridge Project (approximate)

- Legend**
- Railroad
  - Trail
  - Building Footprint
  - Waterbody
  - Park Boundary
  - Floodplain
  - Parcel Line

RICHMOND PARKS AND RECREATION MASTER PLAN



**EXISTING STRUCTURE**  
 The existing steel beam and prestressed box beam bridge was built in 1952 with 17 spans: 39'-6", 3 @ 41'-0", 61'-5", 93'-1 1/4", 93'-1 3/4", 3 @ 41'-0", 2 @ 60'-10 3/8", 36'-4 1/2", and 2 @ 41'-0". The existing bridge was widened in 1992 with 2 @ 24'-0" min. clear roadway reinforced concrete decks. Existing structure to be removed except Abutment 1 retaining wall to remain.

**EARTHWORK TABULATION**

Fill + 20%	= Cys
Common Excavation	= Cys
Usable Waterway Excavation (70%)	= Cys
Surplus Foundation Excavation (70%)	= Cys
Borrow	= Cys
Total Waterway Excavation	= Cys
Excavation Unclassified	= Cys
Benching (Estimated)	= Cys

No direct payment for Benching. Benching will not be paid for as Common Excavation.

**NOTES:**  
 For R/W and Additional Information see Roadway Plan & Profile sheets.  
 For Utility Contacts see Index Sheet No.2.

**CONTINUOUS COMPOSITE CURVED STEEL PLATE GIRDER BRIDGE**  
 7 SPANS: 65'-10", 75'-0", 89'-0", 69'-0", 112'-0", 122'-6" & 193'-6"  
 52'-6" CLEAR ROADWAY;  
 SKEW: VARIES 0° MIN. TO 9° MAX.  
 US 27 OVER ELM PLACE, ALLEY, N E STREET, NORFOLK SOUTHERN RAILROAD, FORT WAYNE AVE, & N F STREET WAYNE COUNTY

<p><b>NOTE TO REVIEWER:</b>          Foundations to be designed upon receipt of geotechnical report and are shown here for reference only.</p>	RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>LAYOUT</p>	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: CEP	DRAWN: JEW			1"=30'=0"	027-89-02814
	CHECKED: RAM	CHECKED: RAM			VERTICAL SCALE	DESIGNATION
					1"=10'-0"	1702941
					SURVEY BOOK	SHEETS
					ELECTRONIC	13 of 20
					CONTRACT	PROJECT
					B-41510	1702941

IP\_PWP:tdms32629\US 27\_BR\_Layout.02.dgn  
 09-JUL-2020

PROJECT	DESIGNATION
1702769	1702769
CONTRACT	
R-41309	

CITY OF RICHMOND  
BOARD OF PUBLIC WORKS AND SAFETY

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

VICKI ROBINSON \_\_\_\_\_ PRESIDENT

EMILY PALMER \_\_\_\_\_ MEMBER

MATT EVANS \_\_\_\_\_ MEMBER

MAYOR

THE HONORABLE DAVID M. SNOW

EMPLOYEE IN RESPONSIBLE CHARGE (ERC)

GREG STIENS, DIRECTOR  
PUBLIC WORKS & ENGINEERING

Excerpts

# INDIANA DEPARTMENT OF TRANSPORTATION

## ROAD PLANS

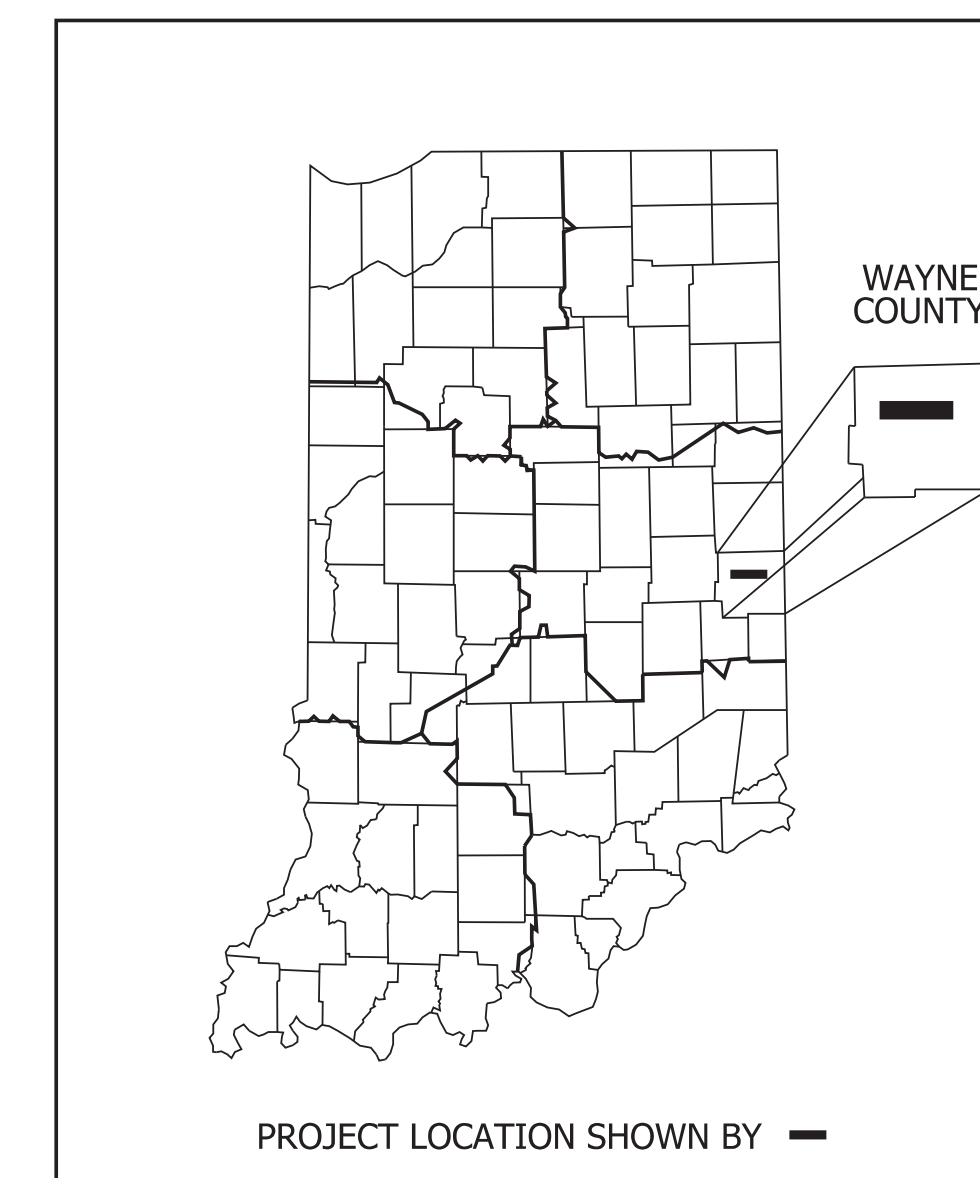
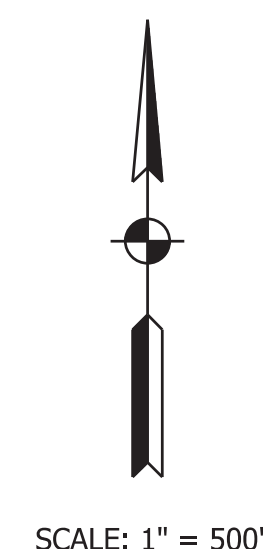
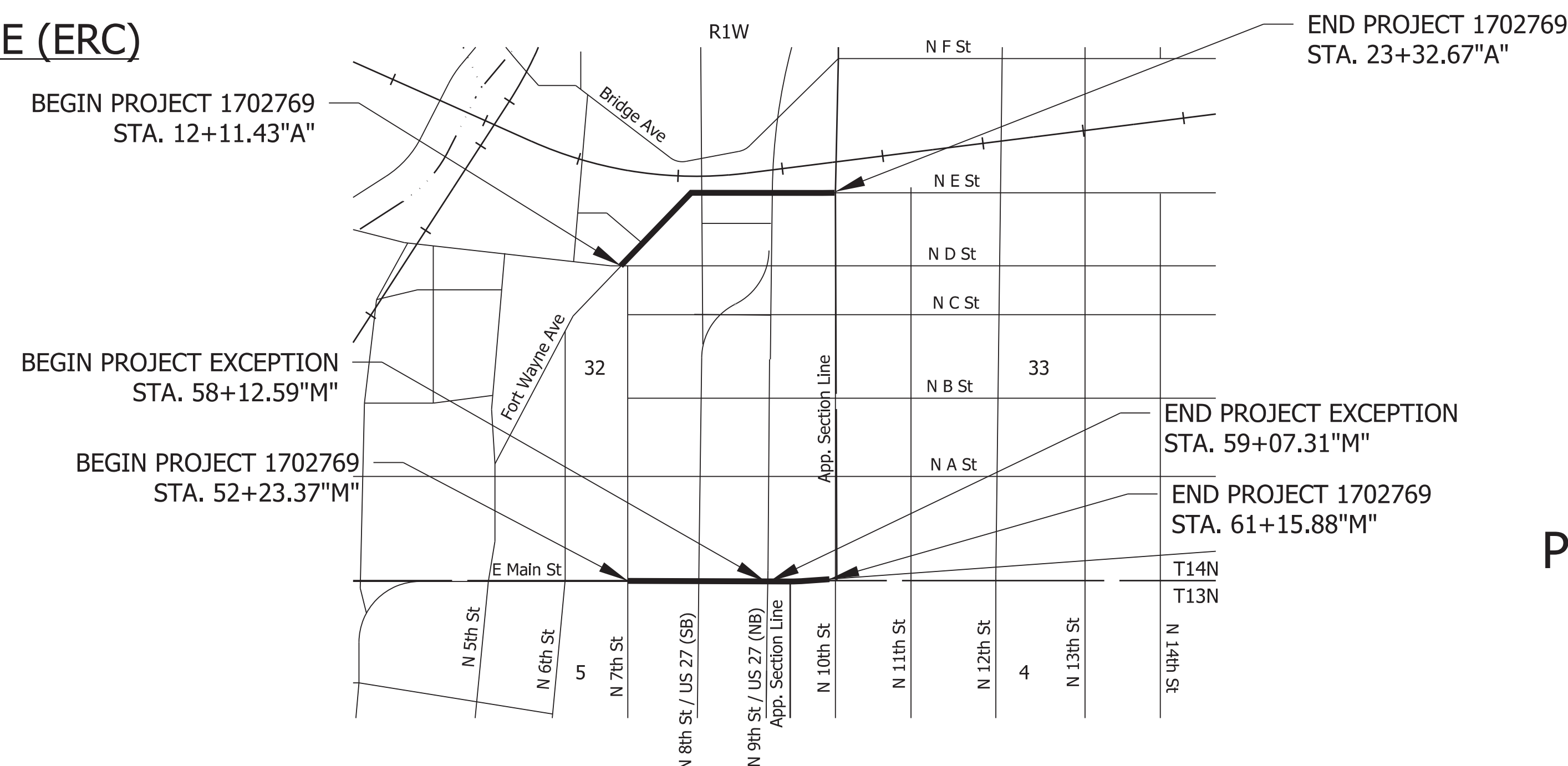
**PROJECT NO. 1702769 ( ) P.E.**  
**1702769 ( ) R/W**  
**1702769 ( ) CONST.**

COMPLETE STREETS LOOP PROJECT PHASE II ON MAIN STREET, FT. WAYNE AVENUE & NORTH E STREET IN THE TOWN OF RICHMOND, WAYNE COUNTY, IN

LOCATED IN SECTIONS 4, 5, 32 & 33, T13N & T14N, R1W, WAYNE TOWNSHIP, WAYNE CO., INDIANA

GROSS LENGTH: 0.21 mi. (Line "A"), 0.17 mi. (Line "M")  
NET LENGTH: 0.21 mi. (Line "A"), 0.15 mi. (Line "M")

PLAN: LONG.: 1" = 20'    PROFILE: HORIZONTAL: 1" = 20'    MAX. GRADE: 3.36% (Main St., Line "M")  
TRANS: 1" = 20'    VERTICAL: 1" = 5'    2.28% (Ft. Wayne/N E St. Line "A")



LONGITUDE: 84°54'34" W  
LATITUDE: 39°49'44" N  
HUC\_12 : 050800030707

**PRELIMINARY FIELD CHECK PLANS  
DECEMBER 2020**

INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2020  
TO BE USED WITH THESE PLANS

TRAFFIC DATA	Main St	TRAFFIC DATA	Fort Wayne Ave
A.A.D.T. (2022)	6,452	V.P.D.	1,541
A.A.D.T. (2042)	9,021	V.P.D.	2,108
D.H.V. (2042)	848	V.P.H.	190
DIRECTIONAL DISTRIBUTION	51	%	68%
TRUCKS	5.0%	A.A.D.T.	5%
	9.4%	D.H.V.	9%

DESIGN DATA	DESIGN DATA
DESIGN SPEED	30 mph
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (BUILT-UP)
TERRAIN LEVEL	LEVEL
ACCESS CONTROL	NONE

TRAFFIC DATA	N E Street
A.A.D.T. (2022)	8,062
A.A.D.T. (2042)	11,029
D.H.V. (2042)	993
DIRECTIONAL DISTRIBUTION	68
TRUCKS	5%
	9%

DESIGN DATA	DESIGN DATA
DESIGN SPEED	30 mph
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	URBAN (BUILT-UP)
TERRAIN LEVEL	LEVEL
ACCESS CONTROL	NONE

PLANS	Clark Dietz, Inc.
PREPARED BY:	8900 Keystone Crossing, Suite 475, Indianapolis, IN 46240 (317) 844-8900
CERTIFIED BY:	DATE
APPROVED	DATE
FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION DATE

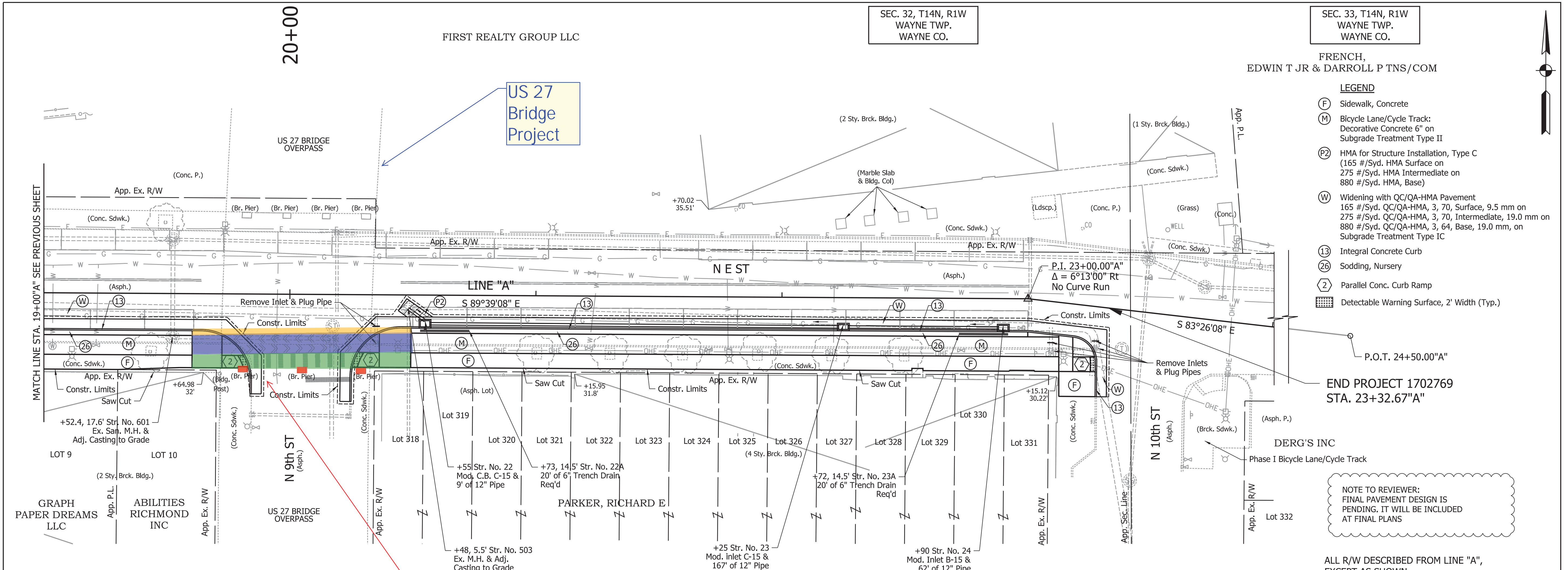
DESIGNATION	1702769
SURVEY BOOK	SHEETS
CONTRACT	PROJECT
R-41309	1702769

F:\R0180100\_Richmond - Complete Streets Loop Project\Plans\Misc\Title.dgn

**ClarkDietz**

8900 KEYSTONE CROSSING, SUITE 475  
INDIANAPOLIS, INDIANA 46240  
T:317.844.8900...www.clarkdietz.com





- SEC. 33, T14N, R1W  
WAYNE TWP.  
WAYNE CO.
- FRENCH,  
EDWIN T JR & DARROLL P TNS/COM
- LEGEND**
- (F) Sidewalk, Concrete
  - (M) Bicycle Lane/Cycle Track:  
Decorative Concrete 6" on  
Subgrade Treatment Type II
  - (P2) HMA for Structure Installation, Type C  
(165 #/Syd. HMA Surface on  
275 #/Syd. HMA Intermediate on  
880 #/Syd. HMA, Base)
  - (W) Widening with QC/QA-HMA Pavement  
165 #/Syd. QC/QA-HMA, 3, 70, Surface, 9.5 mm on  
275 #/Syd. QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on  
880 #/Syd. QC/QA-HMA, 3, 64, Base, 19.0 mm, on  
Subgrade Treatment Type IC
  - (13) Integral Concrete Curb
  - (26) Sodding, Nursery
  - (2) Parallel Conc. Curb Ramp
  - [Pattern] Detectable Warning Surface, 2' Width (Typ.)

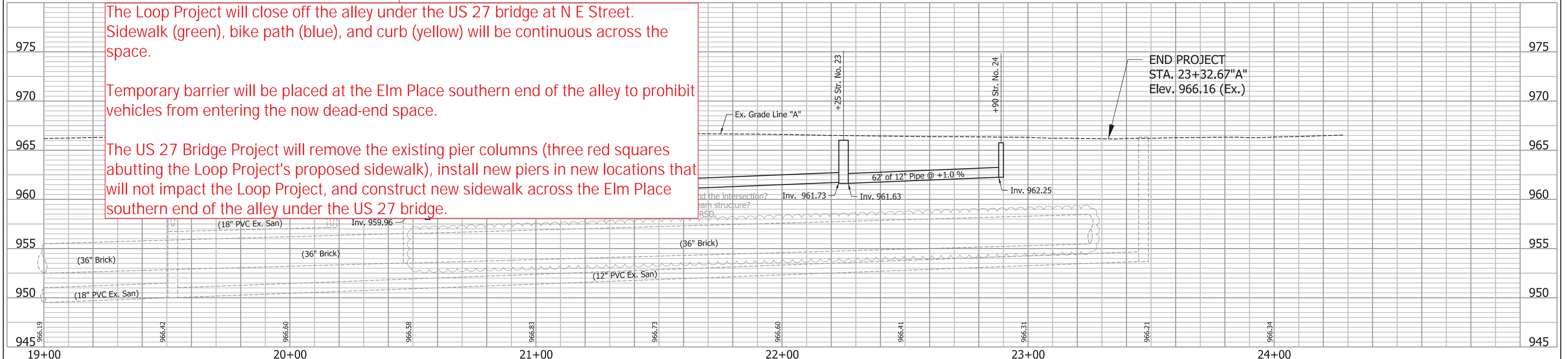
NOTE TO REVIEWER:  
FINAL PAVEMENT DESIGN IS  
PENDING. IT WILL BE INCLUDED  
AT FINAL PLANS

ALL R/W DESCRIBED FROM LINE "A",  
EXCEPT AS SHOWN.

The Loop Project will close off the alley under the US 27 bridge at N E Street. Sidewalk (green), bike path (blue), and curb (yellow) will be continuous across the space.

Temporary barrier will be placed at the Elm Place southern end of the alley to prohibit vehicles from entering the now dead-end space.

The US 27 Bridge Project will remove the existing pier columns (three red squares abutting the Loop Project's proposed sidewalk), install new piers in new locations that will not impact the Loop Project, and construct new sidewalk across the Elm Place southern end of the alley under the US 27 bridge.



	705 N: 167147.2077 E: 832555.7680 A. 30.23' SE, SIDE LIGHT POLE B. 51.66' SW, SIDE SEWER MAN HOLE C. 25.84' N, SIDE LIGHT POLE D. 55.13' NE, SIDE 10" TREE P.I. 23+00.00"A" MAG NAIL FLUSH /W PAVEMENT		706 N: 167130.0599 E: 832704.7846 A. 42.71' SE, SIDE POWER POLE B. 77.88' SE, SIDE SEWER MAN HOLE C. 73.17' NE, SIDE LIGHT POLE P.O.T. 24+50.00"A" MAG NAIL FLUSH /W PAVEMENT		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: _____ ADV _____ DRAWN: _____ MP _____ CHECKED: _____ JAL _____ CHECKED: _____ JAL _____	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PLAN &amp; PROFILE          LINE "A"</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>HORIZONTAL SCALE</td> <td>BRIDGE FILE</td> </tr> <tr> <td>1" = 20'</td> <td>1702769</td> </tr> <tr> <td>VERTICAL SCALE</td> <td>DESIGNATION</td> </tr> <tr> <td>1" = 5'</td> <td></td> </tr> <tr> <td>SURVEY BOOK</td> <td>SHEETS</td> </tr> <tr> <td></td> <td>20 of 46</td> </tr> <tr> <td>CONTRACT</td> <td>PROJECT</td> </tr> <tr> <td>R-41309</td> <td>1702769</td> </tr> </table>	HORIZONTAL SCALE	BRIDGE FILE	1" = 20'	1702769	VERTICAL SCALE	DESIGNATION	1" = 5'		SURVEY BOOK	SHEETS		20 of 46	CONTRACT	PROJECT	R-41309	1702769
	HORIZONTAL SCALE	BRIDGE FILE																					
1" = 20'	1702769																						
VERTICAL SCALE	DESIGNATION																						
1" = 5'																							
SURVEY BOOK	SHEETS																						
	20 of 46																						
CONTRACT	PROJECT																						
R-41309	1702769																						

Excerpts



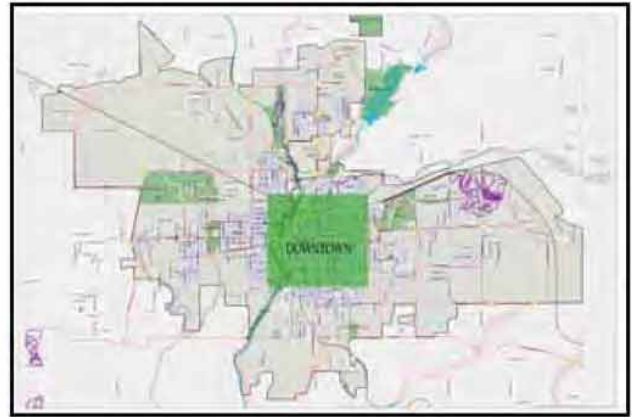
# City of Richmond Bicycle and Pedestrian Master Plan

**Richmond, Indiana**

**June 2015**



- Legend**
- CITY LIMITS
  - SCHOOLS
  - RAILROAD
  - EXISTING SIDEWALKS
  - EXISTING GREENWAY
  - EXISTING TRAILS
  - EXISTING TRAILHEADS
  - CITY HUBS
  - PROPOSED SIDEWALKS
  - PROPOSED SHARED LANE MARKINGS
  - PROPOSED BIKE LANE
  - PROPOSED CYCLETRACK
  - PROPOSED SHARED-USE PATH
  - PROPOSED GREENWAY
  - PROPOSED TRAIL HEADS
  - FACILITY IMPROVEMENTS
  - PARKS
  - WATERWAY
  - FLOODPLAIN



US 27 Bridge Project

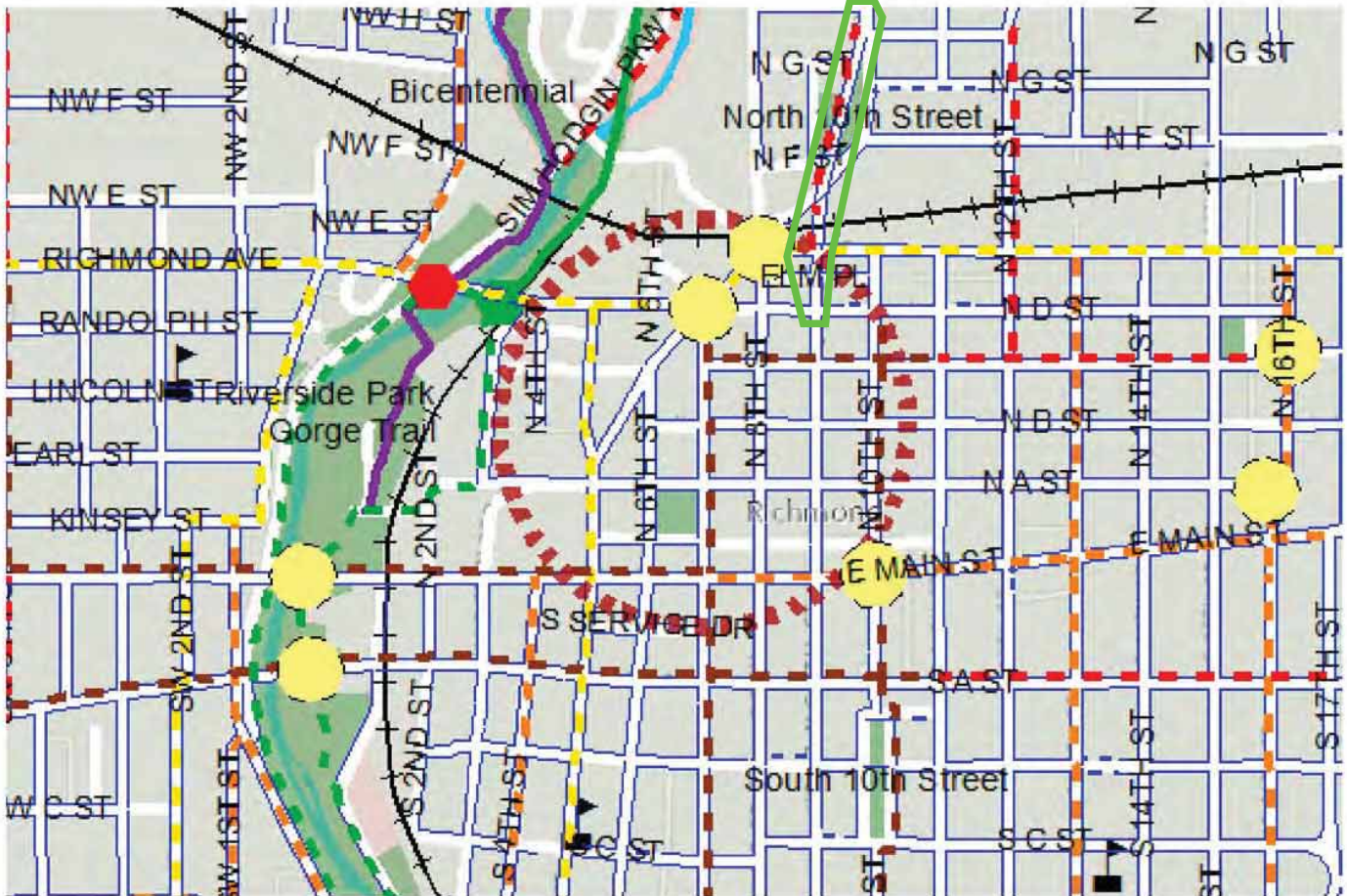


Figure 13 - Downtown Proposed Route Map



# Implementation

INTRODUCTION

INVENTORY

RECOMMENDATIONS

IMPLEMENTATION

OPERATIONS AND MAINTENANCE

FACILITIES GUIDE

## Short-Term Capital Projects Recommendations (1-5 years)

Project	Description	Notes	Miles
Proposed Sidewalks	Sidewalk	Coordinate with Roadway projects	20.00
West Industries Road (Cardinal Greenway to Chester Blvd.)	Multi-use Trail		1.25
Reid Parkway (Chester Blvd. to Middlefork Reservoir)	Multi-use Trail		0.92
University Entrance Drive (Chester Blvd. to end)	Multi-use Trail		0.87
Sylvan Nook Drive (Middlefork Reservoir to Chester Blvd.)	Multi-use Trail		0.51
Oak Drive (Chester Blvd. to Middlefork Reservoir Greenway)	Multi-use Trail		0.23
Abandoned Right-of-Way North of Waterfall Road	Multi-use Trail		0.51
Waterfall Road (White River Gorge to Sheridan Street)	Multi-use Trail		0.23
NW L Street (Sheridan Street to S Salisbury Rd.)	Multi-use Trail		2.17
Chester Blvd. (Sim Hodgkin Pkwy. to NE Street)	Multi-use Trail		0.58
Lakeshore Drive ( E. Main Street to North Drive)	Multi-use Trail		0.66
North Drive (Lakeshore Drive to Cypress Drive)	Multi-use Trail		0.24
Cypress Drive (North Drive to Elks Country Club Road)	Multi-use Trail		0.04
N. 30th Street (E. Main Street to Cypress Drive)	Multi-use Trail		2.15
Elks Country Club Road (Cypress Road to Hayes Arboretum)	Multi-use Trail		0.31
E. National Road (N. 20th Street to Carwood Road)	Multi-use Trail		1.78
Henley Road (E. National Road to Wernle Road)	Multi-use Trail		1.65
<b>Total Multi-use Trail Mileage</b>			<b>14.10</b>
Sylvan Nook Drive (Middlefork Reservoir to Chester Blvd.)	Shared Lane Markings		0.50
Oak Drive (Chester Blvd. to Middlefork Reservoir Greenway)	Shared Lane Markings		0.52
NW L Street (Sheridan Street to NW 5th Street)	Shared Lane Markings		0.58
Sheridan Street (NW L Street to Richmond Avenue)	Shared Lane Markings		0.68
Peacock Road (SW 18th Street to SW 5th Street)	Shared Lane Markings		1.01
SW 18th Street (W. Main Street to Peacock Road)	Shared Lane Markings		0.26
West Main Street (SW 18th Street to SW 5th Street)	Shared Lane Markings		1.01
College Avenue (W. National Road to SW G Street)	Shared Lane Markings		0.44
SW G Street (College Avenue to Hub Etchinson Pkwy.)	Shared Lane Markings		0.57
Hub Etchinson Parkway (SW G Street to Kinsey Street)	Shared Lane Markings		0.73
SW D Street (College Avenue to SW 1st Street)	Shared Lane Markings		0.36
SW 1st Street (SW D Street to Hub Etchinson Pkwy)	Shared Lane Markings		0.21
S 4th Street (S. E Street to E. Main Street)	Shared Lane Markings		0.56
S E Street (S. 5th Street to Henley Road)	Shared Lane Markings		1.86
Geraldine Lane (Henley Road to S. 37th Street)	Shared Lane Markings		0.54
SW G Street (Hub Etchinson Pkwy. to S. 16th Street)	Shared Lane Markings		1.04
Southeast Parkway (S 23rd Street to S. 34th Street)	Shared Lane Markings		1.02
S. 13th Street (E. Main Street to S. L Street)	Shared Lane Markings		1.04
N. 13th Street (N. E Street to E. Main Street)	Shared Lane Markings		0.35
East Main Street (7th Street to 20th Street)	Shared Lane Markings		0.94
N. 16th Street (East Main Street to N. E Street)	Shared Lane Markings		0.35
S. 16th Street (East Main Street to S. L Street)	Shared Lane Markings		1.06
N. 21st Street (East Main Street to N. E Street)	Shared Lane Markings		0.30
S. 21st Street (East Main Street to S. L Street)	Shared Lane Markings		1.09
<b>Total Shared-Lane Markings</b>			<b>17.02</b>
Middlefork Reservoir Greenway (University to Reid Parkway)	Greenway	Floodplain Trail	0.91
Cardinal Greenway Completion	Greenway	Planning Underway	0.96
<b>Total Greenway Mileage</b>			<b>1.87</b>
N. E Street (Fort Wayne Avenue to Lakeshore Drive)	Bike Lane		1.12
Fort Wayne Avenue (N. E Street to Richmond Avenue)	Bike Lane		0.10
Richmond Avenue (Fort Wayne Avenue to NW 5th Street)	Bike Lane		0.82
<b>Total Bike Lane Mileage</b>			<b>2.04</b>
N. 7th Street (N. D Street to E. Main Street)	Cycle Track	Paver bicycle track with sidewalk	0.31
N. 10th Street (N. D Street to E. Main Street)	Cycle Track	Paver bicycle track with sidewalk	0.30
E Main Street (N. 7th Street to Gorge Bridge)	Cycle Track	Paver bicycle track with sidewalk	0.50
S. 7th Street (E. Main Street to S. A Street)	Cycle Track	Paver bicycle track with sidewalk	0.12
S. 10th Street (E. Main Street to S. A Street)	Cycle Track	Paver bicycle track with sidewalk	0.13
S. A Street (10th Street to Gorge Bridge)	Cycle Track	Paver bicycle track with sidewalk	0.79
<b>Total Cycle Track Mileage</b>			<b>2.15</b>



**From:** [Lee, Alexander](#)  
**To:** [Diefenbaugh, Cedric](#)  
**Cc:** [Miller, Daniel J](#); [Port, Juliet](#); [Means, Rachel](#)  
**Subject:** US 27 Bridge Replacement  
**Date:** Tuesday, September 1, 2020 4:38:23 PM  
**Attachments:** [image001.png](#)

---

From: Barry Cramer <barrycramer7@gmail.com>  
Sent: Tuesday, September 1, 2020 3:56 PM  
To: kkotan@richmondindiana.gov  
Cc: Means, Rachel <Rachel.Means@parsons.com>; Lee, Alexander <Alexander.Lee@parsons.com>  
Subject: [EXTERNAL] US 27 Bridge Replacement

Hello, Kate,

I hope that the City of Richmond and INDOT will prove their commitments to Complete Streets policies by including bicycle accommodations in the US 27 over NSRR and Local Streets Project.

I attended the public meeting on Thursday evening, Aug. 27, regarding the U.S. 27 bridge project over the Norfolk Southern Railroad and local streets in the Depot District. I had a somewhat detailed conversation with some of the Parsons representatives, including Rachel Means, the lead designer, and wrote a Comment for INDOT.

The design, as presented at the meeting, included an improved sidewalk for pedestrians, but nothing for bicyclists. Anyone who rides this route knows how inhibiting the lack of accommodation is to riding over the bridge and how disruptive it is to the connectivity of important areas of the city.

As I pointed out to Rachel Means, the City's Bicycle and Pedestrian Master Plan does provide for an accommodation over the railroad. She committed to researching this further. (By way of reminder, I

served on the Advisory Committee for the Plan, which was completed and published in 2015.)

Please share this within the Dept. of Infrastructure and Development to ensure Richmond's forward movement toward Complete Streets and becoming a bicycle-friendly city.

Thanks, Kate.

Best Regards,  
Barry Cramer  
24 South 21 St.  
Richmond, IN 47374  
(765) 966-4458

cc: Rachel Means  
Lee Alexander

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## Port, Juliet

---

**From:** Beth Fields <bfields@richmondindiana.gov>  
**Sent:** Wednesday, June 2, 2021 6:25 PM  
**To:** Means, Rachel  
**Cc:** Greg Stiens; Port, Juliet  
**Subject:** Re: [EXTERNAL] Re: Request for Information: Recommended Trail along US 27/Chester

This is the first time I've seen this email.

Funding is not yet secured. The project will most likely seek grant funding with local TIF funds for the match.

I'm out of the office until Friday but am happy to schedule a call to discuss.

Sent from my iPhone

On Jun 2, 2021, at 5:16 PM, Means, Rachel <Rachel.Means@parsons.com> wrote:

Beth and Greg,  
Apologies if this is a duplicate email, but Juliet keeps receiving an "undeliverable" notice so we're trying to make sure you've received the below messages.

Please acknowledge this email with a short/quick reply if you receive it, and we'll stop sending the same message. Appreciate it!

Thank you,

**Rachel Means, P.E.**

Senior Engineer

[Rachel.Means@parsons.com](mailto:Rachel.Means@parsons.com)

Direct: 317.616.4674

[Parsons](#) / [LinkedIn \[linkedin.com\]](#) / [Twitter \[twitter.com\]](#) / [Facebook \[facebook.com\]](#) / [Instagram \[instagram.com\]](#)

<image001.png>

---

**From:** Port, Juliet <Juliet.Port@parsons.com>  
**Sent:** Wednesday, June 02, 2021 2:54 PM  
**To:** Beth Fields <bfields@richmondindiana.gov>  
**Cc:** gstiens@richmondindiana.gov; Means, Rachel <Rachel.Means@parsons.com>  
**Subject:** RE: [EXTERNAL] Re: Request for Information: Recommended Trail along US 27/Chester

Beth,

Thank you for your response, I just left you a voice message. Could you please clarify if there is funding for this recommended trail project (officially "programmed")? That changes how we conduct our environmental analysis.

Feel free to call me if you'd like to discuss. We appreciate your time. (Also - I got an odd bounce-back so I'm sending this email a 2<sup>nd</sup> time, hopefully that's not causing confusion).

Thank you,  
Juliet Port  
317-616-4693

---

From: Beth Fields <[bfields@richmondindiana.gov](mailto:bfields@richmondindiana.gov)>  
Sent: Thursday, May 27, 2021 4:29 PM  
To: Port, Juliet <[Juliet.Port@parsons.com](mailto:Juliet.Port@parsons.com)>  
Cc: [gstiens@richmondindiana.gov](mailto:gstiens@richmondindiana.gov); Means, Rachel <[Rachel.Means@parsons.com](mailto:Rachel.Means@parsons.com)>  
Subject: [EXTERNAL] Re: Request for Information: Recommended Trail along US 27/Chester

Hi Juliet,

This is a project that has not yet entered the design phase. I would anticipate that to begin in the next 3-5 years.

Beth Fields  
Director, Infrastructure & Development

City of Richmond  
50 North Fifth Street  
Richmond, IN 47374  
[bfields@richmondindiana.gov](mailto:bfields@richmondindiana.gov)  
765.983.7211

On Thu, May 20, 2021 at 1:30 PM Port, Juliet <[Juliet.Port@parsons.com](mailto:Juliet.Port@parsons.com)> wrote:

Request for Information: Proposed Multi-Use Trail along Chester Blvd/US 27  
US 27 over NSRR and Local Streets Bridge Project  
Richmond, Wayne County  
Des. No. 1702941

Beth and Greg,

As you know, we are working on behalf of INDOT on the US 27 Bridge Project in downtown Richmond, from 0.30 mile north of westbound US 40 (North D Street) to 0.48 mile north of westbound US 40 (100 feet north of North G Street). As part of the environmental analysis, we need to consider impacts to current and proposed parks, trails, etc. There has been on-going coordination about the Loop Project so I don't have any questions or concerns from the environmental side on that; we are covered. However, there is another recommended potential trail within our project area and we'd like to clarify if it's a real project.



Based on the City's June 2015, *Bicycle and Pedestrian Master Plan*, a "Multi-Use Trail" was recommended along US 27/ Chester Boulevard. It was listed on the short-term capital project recommendations (see attached excerpts).

- Was the recommended multi-use trail project (Chester Blvd; from Sim Hodgin Parkway to N E Street), or a similar project along US 27, programmed by the City?

FYI – there was one public comment from the public open house held on August 27, 2020 that referenced this (see attached). Also, as a reminder, the proposed US 27 Bridge Project includes improving the existing pedestrian facilities on the bridge by removing the eastern facilities, and providing an ADA-compliant sidewalk on the western side.

We appreciate your assistance in this matter. Please do not hesitate to contact us with any questions or requests.

Thank you,

**Juliet Port, LPG**

Principal Environmental Planner

101 W Ohio, Suite 2121

Indianapolis, IN 46204

[juliet.port@parsons.com](mailto:juliet.port@parsons.com)

Direct: +1 317.616.4693

[Parsons](#) / [LinkedIn \[linkedin.com\]](https://www.linkedin.com) / [Twitter \[twitter.com\]](https://twitter.com) / [Facebook \[facebook.com\]](https://www.facebook.com) / [Instagram \[instagram.com\]](https://www.instagram.com)

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## Port, Juliet

---

**From:** Darrah, Taylor N <TDarrah@indot.IN.gov>  
**Sent:** Wednesday, June 30, 2021 12:40 PM  
**To:** Port, Juliet; Riggs, Nathan W  
**Cc:** Means, Rachel; Miller, Daniel J; Miller, Brandon  
**Subject:** [EXTERNAL] RE: US 27 Section 4(f) draft Memo

Juliet,

INDOT District Environmental and ESD have no additional comments.

Thank you,

### Taylor Darrah

#### *Environmental Section Manager*

Indiana Department of Transportation

32 South Broadway

Greenfield, IN 46140

**Office:** (317) 467-3915

**Cell:** (317) 526-6080

**Email:** [TDarrah@indot.in.gov](mailto:TDarrah@indot.in.gov)



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[\[in.gov\]](https://www.in.gov)



[\[in.gov\]](https://www.in.gov)



[\[in.gov\]](https://www.in.gov)

 Go Green, There is no Planet B

---

**From:** Port, Juliet <Juliet.Port@parsons.com>  
**Sent:** Wednesday, June 09, 2021 4:05 PM  
**To:** Darrah, Taylor N <TDarrah@indot.IN.gov>; Riggs, Nathan W <NRiggs@indot.IN.gov>  
**Cc:** Means, Rachel <Rachel.Means@parsons.com>; Miller, Daniel J <Daniel.J.Miller@parsons.com>; Miller, Brandon <BraMiller1@indot.IN.gov>  
**Subject:** RE: US 27 Section 4(f) draft Memo

**\*\*\*\* This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*\***

---

RE: Request for Review: revised Draft Memorandum regarding potential Section 4(f) impacts - 2<sup>nd</sup> Submission  
US 27 over NSRR and Local Streets  
Richmond, Wayne County  
Des. No. 1702941  
CE-4 level project

Taylor,

**Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)**

ProjectNumber	SubProjectCode	County	Property
1800325	1800325	Wayne	Whitewater Valley Gorge Park & Trail
1800356	1800356	Wayne	Glen Miller Park & Golf Course
1800462	1800462	Wayne	Springwood Lake Park

**Source:**  
<https://www.in.gov/indot/files/IN%20LWCF%20sites%20by%20county.xlsx>

**Utility Coordination Log**

Date	From:	To:	Method of Contact	Request
2/20/19	Kenny	All Utilities	email	Initial Notice
4/16/20	Kenny	All Utilities	email	Verification Notice
7/22/20	Kenny	All Utilities	site visit	Preliminary Field Check
1/22/21	Kenny	All Utilities	email	Conflict Analysis
1/22/2021	Kenny	All Utilities	email	Work Plan Request
2/1/2021	Kenny	All Utilities	Teams	Teams Meeting to discuss relocations
4/1/2021	Kenny	All Utilities	Teams	Teams Meeting to discuss relocations
4/13/2021	Kenny	IN Am Water	Teams	Coordinated and eliminated potential relocation impacts to historic area
5/28/2021	Kenny	Frontier	Email/call	coordinating relocation plan at MSE Wall
6/1/2021	Kenny	City of Richmond Sanit	Teams	Coordinated Reimbursable Agreement

## UTILITIES

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Excerpt

## **US 27 over Norfolk Southern Railroad and 5 Streets Bridge Replacement Project**

DESIGNATION NUMBER: 1702941

PROJECT NUMBER: 1702941

EXISTING BRIDGE FILE NUMBER: 027-89-02136 B

PROJECT LOCATION: 0.3 Miles North of WB US 40

REFERENCE POINT: 22+0.33

Wayne County, Indiana



### **Final Engineer's Report October 2019**

Prepared by:

**PARSONS**

101 West Ohio Street, Suite 2121

Indianapolis, IN 46204

**5.2.2 SUPERSTRUCTURE**

The existing box beams in Spans A, B, C, D, H, J, K, L, P, Q, R, and S were all placed as part of the 1992 rehab. The original intent of the 1992 rehab was to patch and repair the original reinforced concrete girders in these spans, but a construction change instead replaced the original girders with new prestressed concrete box beams. The box beams are in good condition.

The original steel beams in the remaining spans are in good to fair condition. Most exhibit heavy rusting and staining of the piers below. Bearings are in similar condition, with most rusted and some appear to be frozen in place.

**5.2.3 SUBSTRUCTURE**

All piers appear to be plumb, stable, and in good to fair condition. As noted in the 2017 Inspection Report, nearly every pier has vertical cracks in its columns or some minor spalls. Most pier caps are in good condition with minor cracking, some of which have been previously repaired. However, other pier caps show extensive spalling with exposed reinforcement. Piers 6, 12, and 14 have the most deterioration, with approximately 25% of each cap spalling with exposed reinforcement. Pier 14’s cap follows the skew of Fort Wayne Avenue and



**Figure 5.2.3 - Pier Cap Deterioration**

overhangs N F Street at its intersection with Fort Wayne Avenue. Despite it being signed as low clearance of 13’-0”, the cap is scraped and spalled on the corners where trucks have struck it.

The reinforced concrete vertical abutment and retaining walls at End Bent 1 appear to be in good condition. The majority of the exposed faces of the end bent and retaining walls are covered by painted murals or graffiti. Some minor cracking is seen on all three faces. Drains appear to be functioning. End Bent 18 is in good condition. The concrete sloped wall is cracked and piles of soil are seen at the top near the bent cap, indicating fill is eroding out from under the cap.

**6.0 Pedestrian Considerations**

There are several pedestrian facilities within the project limits. Many of the existing facilities are substandard and recommendations were discussed with INDOT’s ADA Technical Advisory Committee (TAC) on March 29, 2019. The discussion items were as follows:

- Substandard sidewalk along the existing bridge
- Existing staircases on all four quadrants of the existing bridge
- Lack of ADA curb ramp on east side of US 27 at the southern intersection with N H Street, where Chester Boulevard merges with US 27

Three options to remediate the substandard sidewalks along the existing bridge were presented. It was the preference of the TAC to provide a proposed bridge that contained sidewalks along both sides that meet current ADA standards, even at the cost of removing the concrete median and reducing lanes to 10’. The