

Des 1801935 CE-4

Appendix F

Water Resources

Note: Repeat maps have been removed. The full report can be made available upon request.

**Waters Report
Roadway Extension
CR 1300 N over Norfolk RR and Main St to SR 15
Van Buren Township, Kosciusko County, Indiana
INDOT Designation Number 1801935**



Prepared for:
Indiana Department of Transportation

Prepared by:
Michael Baker International
3815 River Crossing Parkway, Suite 20
Indianapolis, Indiana 46240

December 18, 2019

WATERS REPORT
Roadway Extension
CR 1300 N over Norfolk RR and Main St to SR 15
Van Buren Township, Kosciusko County, Indiana
INDOT Designation Number 1801935
Prepared by: Laura Jack, Environmental Scientist
Contact Information: laura.jack@mbakerintl.com, 312-575-3902
Michael Baker International
December 18, 2019

I: Project Information

Fieldwork Dates:

Fieldwork for this report was conducted on September 12, 2019 by Michael Baker International (Michael Baker).

Contributors:

Laura Jack, Environmental Scientist
Debra White (PWS), Senior Environmental Project Manager

Project Location:

Roadway Extension
CR 1300 N over Norfolk Railroad and Main St to SR 15
Section 4, 5, 8, & 9, T 34N, R 6E, Van Buren Township
USGS Milford Quadrangle
Kosciusko County, Indiana
Latitude/Longitude: 41.421075°N, -85.841268°W

Project Description:

The proposed project is located on CR 1300 N, from approximately 1,700 feet east of Old State Rd 15 to SR 15 in Van Buren Township, Kosciusko County, Indiana. The project is a proposed roadway extension that will extend CR 1300 N with a new overpass bridge over N Main Street and Norfolk Southern Railroad and the roadway will then connect to SR 15. A signalized intersection will be installed at the new intersection of CR 1300 N and SR 15. The proposed bridge and roadway will provide two 12-foot wide travel lanes, one in each direction, with 4-foot wide shoulders. Traffic is anticipated to be maintained through a detour. New right-of-way will be acquired for the project.

II: Office Evaluation

Methodology:

A desktop review of the study area was conducted to identify potential waters of the US and waters of the State (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for follow-up in the field. United States Geological Survey (USGS) topographic mapping, National Wetlands Inventory (NWI) mapping, and Natural Resources Conservation Service (NRCS) mapped soil units were also reviewed.

USGS Mapping:

The USGS 7.5-minute series Milford Quadrangle topographic map was reviewed, which identified one perennial (solid blue-line) and one intermittent (dashed blue-line) stream within the study area. The perennial line is unnamed, and the dashed blue-line is identified as Preston Miles Ditch.

NWI and Floodplain Mapping:

During a review of the NWI dataset, one NWI wetland and one riverine were identified within the study area. The wetland was labeled as a PEM1C (palustrine emergent persistent seasonally flooded) and the riverine was labeled as a R5UBFx (riverine, unknown perennial, unconsolidated bottom, semipermanently flooded, excavated). The National Hydrography Dataset (NHD) identified three additional streams within the project area (pg. A6).

A review of the Digital Flood Insurance Rate Map (DFIRM) determined that the project area is not located within the 100-year floodplain. (pg. A7).

The Indiana HUC Finder (<https://www.in.gov/idem/cleanwater/pages/huc/>) was used to determine that the project is located within the Dausman Ditch-Turkey Creek watershed (HUC 12-digit 04050011708).

Mapped Soil Units:

NRCS classifies soil types as follows: hydric (100%), predominantly hydric (66-99%), partially hydric (33-65%), predominantly non-hydric (1-32%), and not hydric (0%). According to the Soil Survey Geographic (SSURGO) database for Kosciusko County, Indiana, the study area includes nine soils (A8). Table 1 shows the acre and percentage for each soil as identified through NRCS Web Soil Survey (A9).

Table 1- Mapped Soils within Study Area

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	Hydric
Bc	Barry loam	0.3	0.6%	Yes
Bp	Brady sandy loam	0.1	0.2%	Yes
BrA	Bronson sandy loam, 0 to 2 percent slopes	0.2	0.3%	Yes
CrB	Crosier loam, 1 to 4 percent slopes	6.9	12.6%	Yes
Hx	Houghton muck, drained	0.2	0.4%	Yes
KoA	Kosciusko sandy loam, 0 to 2 percent slopes	11.9	21.8%	No
Kta	Kosciusko silt loam, 0 to 2 percent slopes	3.3	6.1%	No
MIB	Miami loam, 2 to 6 percent slopes	5.4	10.0%	Yes
OrA	Ormas loamy sand, 0 to 2 percent slopes	23.5	43.2%	No
OrB	Ormas loamy sand, 2 to 6 percent slopes	0.3	0.6%	No
Pb	Palms muck, gravelly substratum, drained	2.2	4.1%	Yes
Totals for Study Area		54.4	100.0%	

III: Field Reconnaissance

Methodology:

Michael Baker conducted a field investigation on September 12, 2019, to determine the presence of streams, wetlands, and other water resources within the study area. The entire study area, as well as the immediate surroundings, were reviewed for resources via a walking survey. All areas flagged during desktop analysis were reviewed and documented. When observed, features located adjacent to, but outside of, the study area were noted. A resource map showing all identified features is attached for reference (pgs. A10).

Photographs were taken throughout the study area, and specifically for each feature identified. Selected photographs are included within this report for reference (pgs. B2-B6). The photos have been keyed to photo-orientation map (pg. B1).

The ordinary high-water marks (OHWMs) of any identified streams were obtained using a measuring tape. A hand-held Global Positioning System (GPS) unit (Trimble Geoexplorer 7000 Series) was used to map these resources.

The study area was surveyed for the presence of vegetation, soils, or hydrological indicators that would signify a potential for wetlands to be present. Portions of the study area are located within both the USACE Midwest and Northcentral and Northeast Regional Supplement boundaries. Based on regional characteristics and best professional judgement, wetlands were identified using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Wetland indicator statuses for plants were obtained from *The National Wetland Plant List* (Lichvar 2016). When present, data forms for each wetland were prepared, and a visual assessment of each wetland’s quality and function was conducted. A hand-held GPS unit (Trimble Geoexplorer 7000 Series) was used to map the boundary of any identified wetlands, as well as the locations of any data points, recorded. If wetlands were not present, data points were recorded documenting upland areas.

Streams:

A field investigation on September 12, 2019 resulted in the identification of one jurisdictional stream totaling 388 linear feet. This feature is summarized in the Stream Resources Table (Table 2). No other features exhibiting an OHWM were observed within the study area. No waterways are listed on the Federal Wild and Scenic River, State Natural, and Recreation River, or on the Indiana Register’s Listing of Outstanding Rivers and Streams, nor are any located within two miles of any such resources.

Preston Miles Ditch

The location of Preston Miles Ditch within the study area, as indicated by the NWI and NHD map, was confirmed in the field. Preston Miles Ditch is an intermittent dashed-line stream within the study area according to the USGS topographic map and is classified as a riverine, unknown perennial, unconsolidated bottom, semi permanently flooded, excavated (R5UBFx) feature based on the classification codes defined by Cowardin et al (1979). Preston Miles Ditch is approximately 388 linear feet within the study area and has an average OHWM of 20 feet wide and a depth of 5 inches. The stream substrate was primarily sand. The riparian land included a vegetated buffer. Stream cover within the study area was low. Preston Miles Ditch flows northwest into a box culvert under SR 15 and exits into an off-site pond. Preston Miles Ditch is a jurisdictional wetland.

Per the USGS StreamStats online application (<https://water.usgs.gov/osw/streamstats/Indiana.html>), Preston Miles Ditch has an upstream drainage area of approximately 0.691 square miles at the project location (pg. A11).

Table 2- Stream Resources

Water Feature Name	Photos	Lat/Long	Average OHWM Width and Depth	USGS Blue-line?	USGS Blue-Line Type	Riffles? Pools?	Quality	Substrate	Likely Water of the US
Preston Miles Ditch	1,8, 9	39.413530/-84.901972	20ft. wide 5 in. deep	Yes	Perennial	Yes	Good	Sand	Yes

Wetlands:

Michael Baker investigated for the presence of wetlands on September 12, 2019. Sampling locations were determined using wetland vegetation, visual indications of hydrology, and NRCS hydric soil mapping. Data points were taken at four locations and data sheets are attached (pgs. C1-C8). Data points collected during the field reconnaissance are summarized in Table 3. Two jurisdictional wetlands totaling 0.39 acre were identified within the study area (Table 4).

Table 3 - Data Point Summary Table

Data Point	Vegetation	Soils	Hydrology	Wetland
W-01	Yes	Yes	Yes	Yes
W-01UP	No	No	No	No
W-02	Yes	Yes	Yes	Yes
W-02UP	No	No	No	No

Wetland 1

Wetland 1 is located west of SR 15, within the middle of farmland. Wetland 1 was identified on the maps as a palustrine emergent persistent seasonally flooded (PEM1C) resource and is approximately 0.09 acre within the project limits and extends off-site. One data point, W-01, was taken within Wetland 1 (pgs. A10). The dominant vegetation was switchgrass (*Panicum virgatum*) and foxtail (*Setaria faberi*). The soil was identified as 0-1 inches 7.5YR 2.5/1 muck and 1-18 inches 7.5YR 2.5/1 loam which meets the hydric soil indicator 2 cm muck (A10). Hydrology was met by inundation visible on aerial imagery (B7) and thin muck surface (C7). Wetland 1 would be classified as poor quality because there was not a diverse, high quality plant community and it is surrounded by farmland so there is frequent disturbance. Wetland 1 would likely be a jurisdictional wetland because it is adjacent to Preston Miles Ditch.

Wetland 2

Wetland 2 is located east of SR 15. Wetland 2 was not identified on any maps but was identified in the field as an emergent wetland that is 0.30 acre within the project limits and extends off-site. One data point, W-02, was taken within Wetland 2 (pgs. A10). The dominant vegetation was reed canary grass (*Phalaris arundinacea*). The soil was identified as 0-6 inches 10YR 3/2 silty clay loam and 6-18 inches 10YR 3/1 silty clay loam with 20% 7.5YR 4/6 redox which meets the hydric soil indicator redox dark surface (F6). Hydrology as met with secondary indicators FAC-neutral test (D5) because of the dominant vegetation being FACW and geomorphic position (D2) because it is in a concave position adjacent to an off-site pond. Wetland 2 would be classified as poor quality due to a lack of a diverse, high quality plant community. Wetland 2 would likely be a jurisdictional wetland because of its position to Preston Miles Ditch and the off-site pond.

Table 4 - Wetland Summary

Wetland Name	Photos	Lat/Long	Type	Total Area (acres)	Quality	Likely Water of the US
Wetland 1	2, 3, 4, 5, 6	41.420974/ -85.850962	Emergent	0.09	Poor	Yes
Wetland 2	10, 11	41.420813/ -85.850176	Emergent	0.30	Poor	Yes
TOTAL:				0.39		

IV: Conclusions

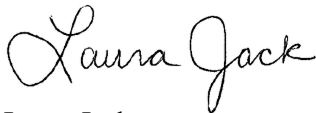
Based on the field investigation of September 12, 2019, the study area contains one waterway, Preston Miles Ditch, totaling 388 linear feet, and two wetlands totaling 0.39 acre. These waters are all likely Waters of the U.S. that would fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE). No other likely waters of the US or waters of the State were identified.

Every effort should be taken to avoid and minimize impacts to these waters. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the Corps.

A preliminary jurisdictional determination (pre-JD) form is attached to the end of this report (pgs. D1-D3).

V: Acknowledgement

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator’s training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.



Laura Jack
Environmental Scientist
Michael Baker International

VI: References

Federal Geographic Data Committee. 2013. *Classification of Wetlands and Deepwater Habitats of the United States*. FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

U. S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Environmental Laboratories. 1987. *Corps of Engineers Wetland Delineation Manual*, Technical Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.

USDA, NRCS. 2017. The PLANTS Database (<http://plants.usda.gov>, 4 December 2017). National Plant Data Team, Greensboro, NC 27401-4901 USA.

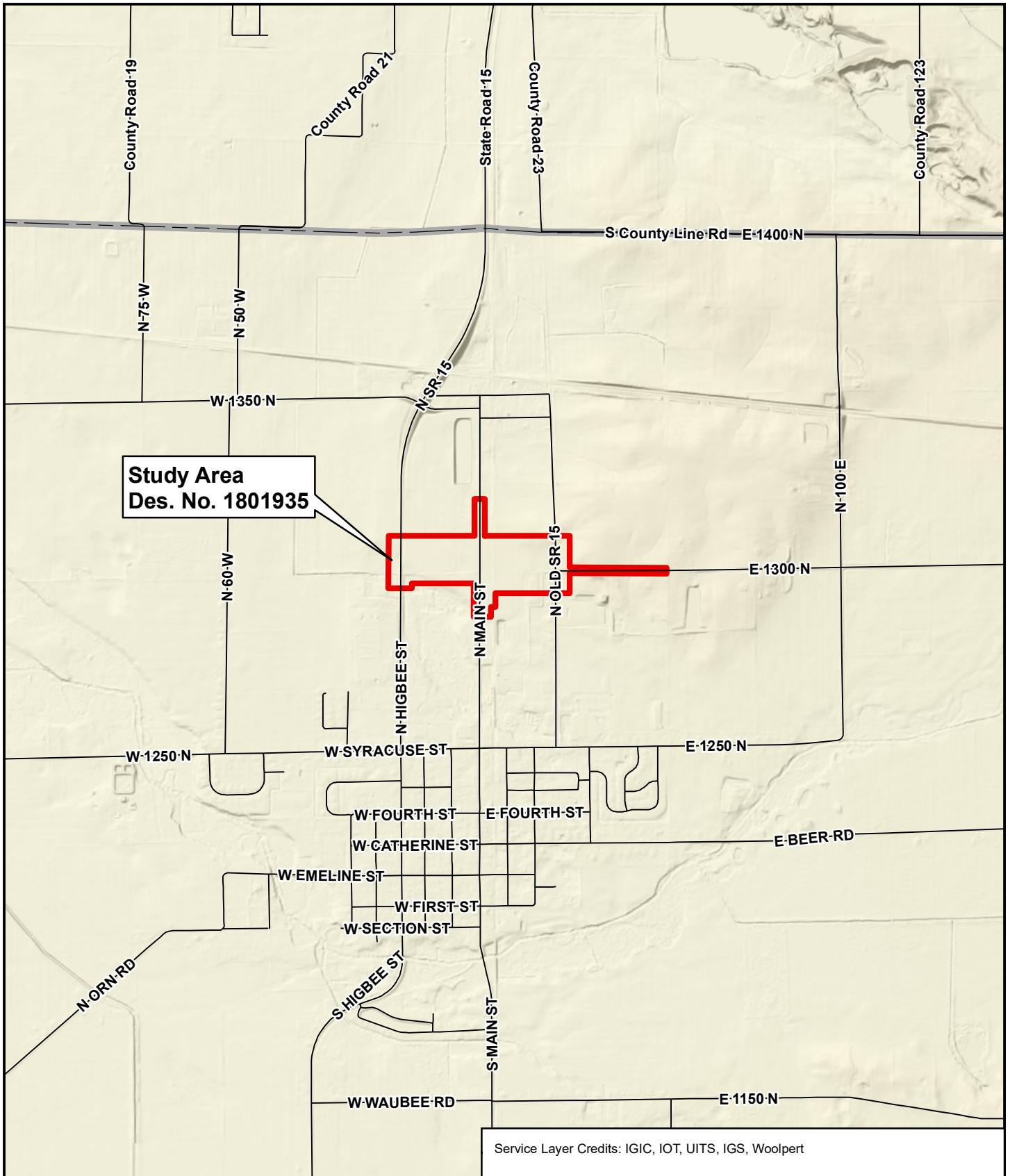
VII: Supporting Documentation

Exhibits A1-A13

Site Photograph Log and Photographs B1-B6

Wetland Determination Data Forms C1-8

Preliminary JD Form D1-D3



Legend

LiDAR Color Hillshade (2011-2013)

High : 1256

Low : 247

Study Area

N

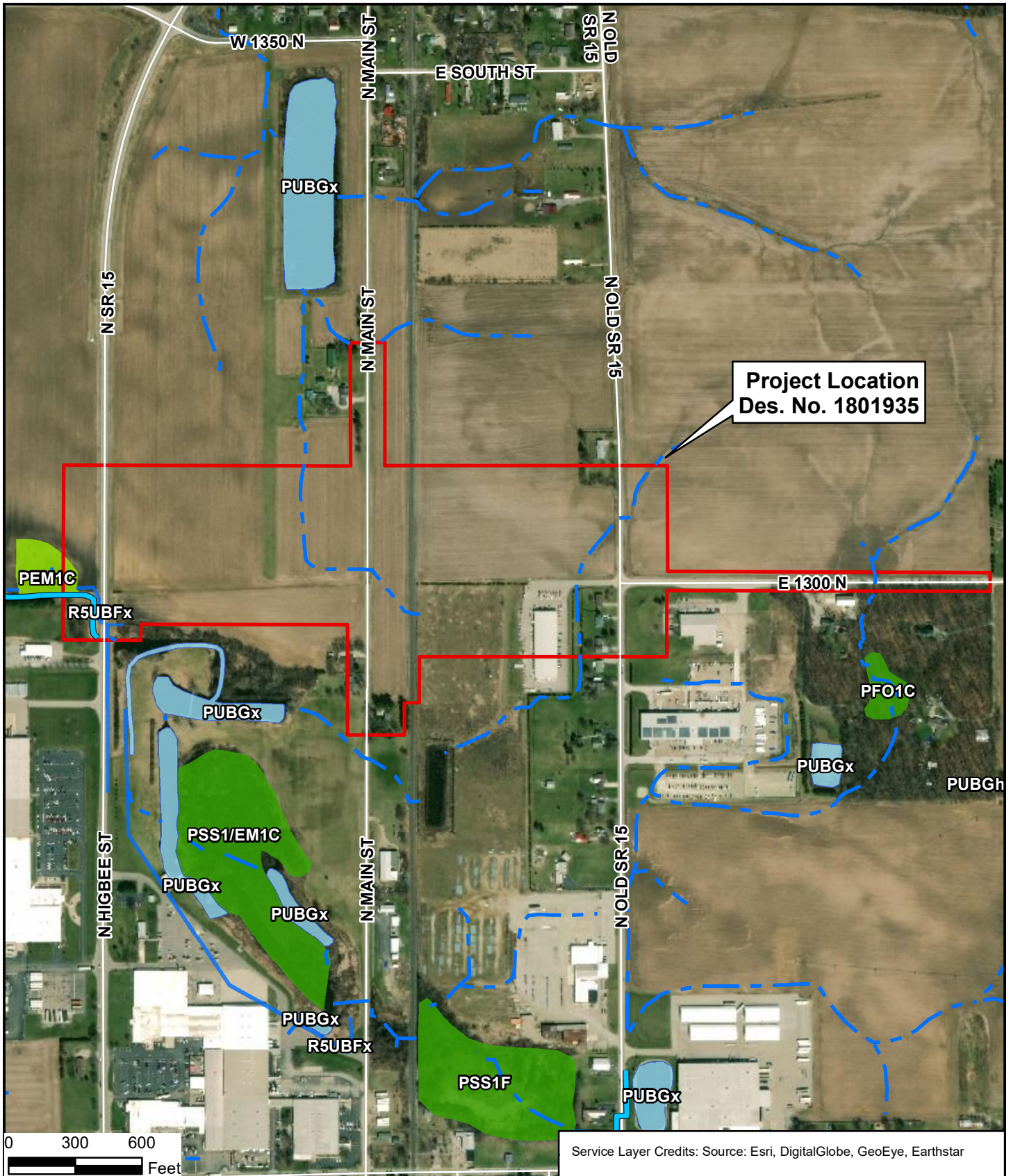


0 1,000 2,000



Service Layer Credits: IGIC, IOT, UITS, IGS, Woolpert

**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
LIDAR Color Hillshade**



Legend

- | | | |
|--------------|---------------------------|-----------------|
| NHD Flowline | NWI Wetland | Freshwater Pond |
| Ditch | Freshwater Emergent | Riverine |
| Stream | Freshwater Forested/Shrub | |
| Study Area | | |

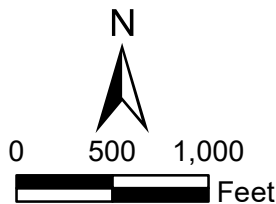


**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
Water Resources**



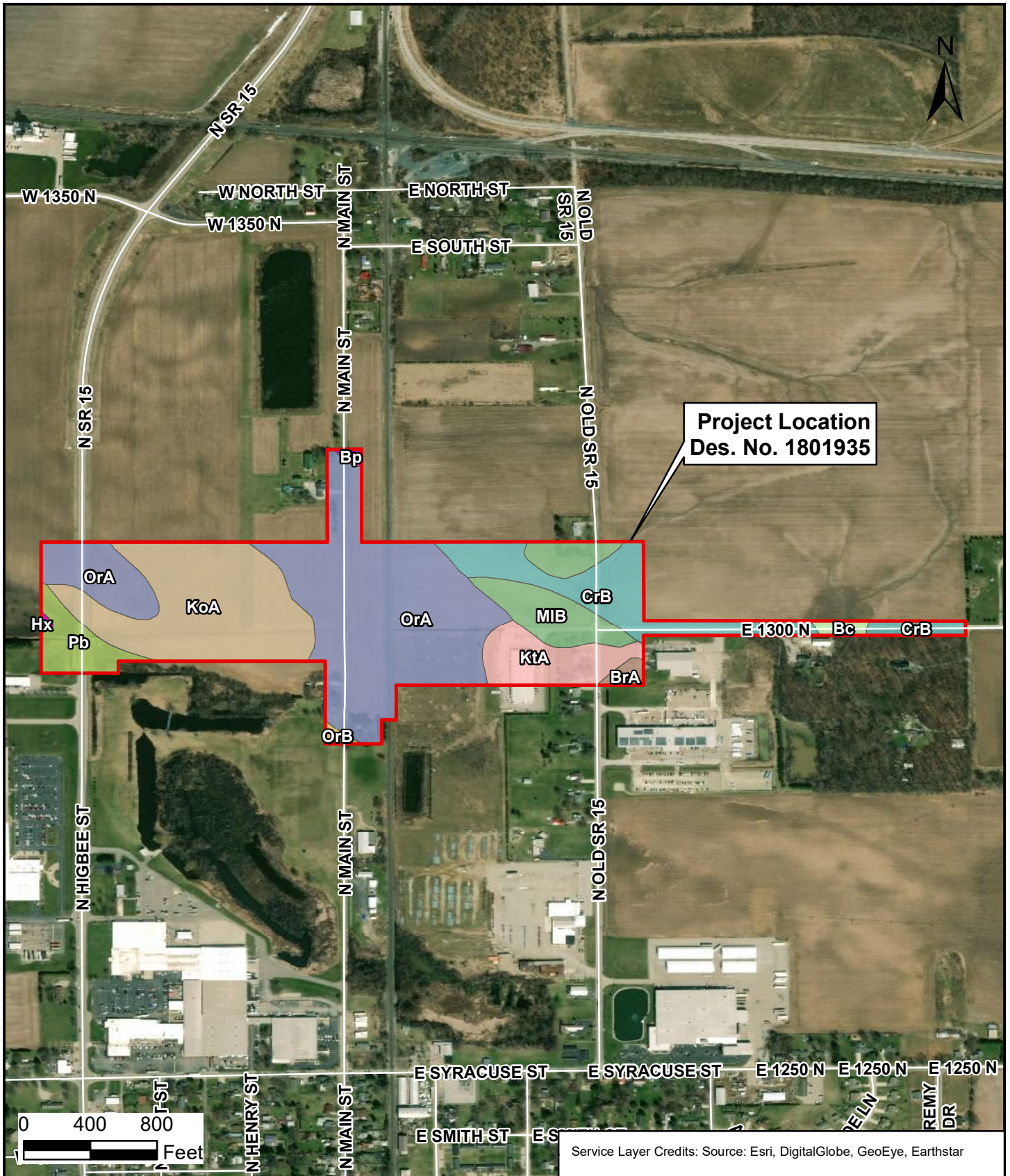
Legend

- Study Area
- 100-Year Floodplain
- Floodway



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar

**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
FEMA Floodplain Map**



Legend

- Study Area
- NRCS Soils**
- Bc - Barry loam
- Bp - Brady sandy loam
- BrA - Bronson sandy loam
- CrB - Crosier loam
- Hx - Houghton muck
- KoA - Kosciusko sandy loam
- KtA - Kosciusko silt loam
- MIB - Miami loam
- OrA - Ormas loamy sand
- OrB - Ormas loamy sand
- Pb - Palms muck

**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
NRCS Soils Map**

Map Unit Legend

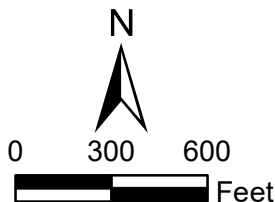
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Bc	Barry loam	0.3	0.6%
Bp	Brady sandy loam	0.1	0.2%
BrA	Bronson sandy loam, 0 to 2 percent slopes	0.2	0.3%
CrB	Crosier loam, 1 to 4 percent slopes	6.9	12.6%
Hx	Houghton muck, drained	0.2	0.4%
KoA	Kosciusko sandy loam, 0 to 2 percent slopes	11.9	21.8%
KtA	Kosciusko silt loam, 0 to 2 percent slopes	3.3	6.1%
MIB	Miami loam, 2 to 6 percent slopes	5.4	10.0%
OrA	Ormas loamy sand, 0 to 2 percent slopes	23.5	43.2%
OrB	Ormas loamy sand, 2 to 6 percent slopes	0.3	0.6%
Pb	Palms muck, gravelly substratum, drained	2.2	4.1%
Totals for Area of Interest		54.4	100.0%



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar

Legend

- Study Area
- Ditch
- Data Point
- Wetland
- Culvert



**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
Field Identified Resources**

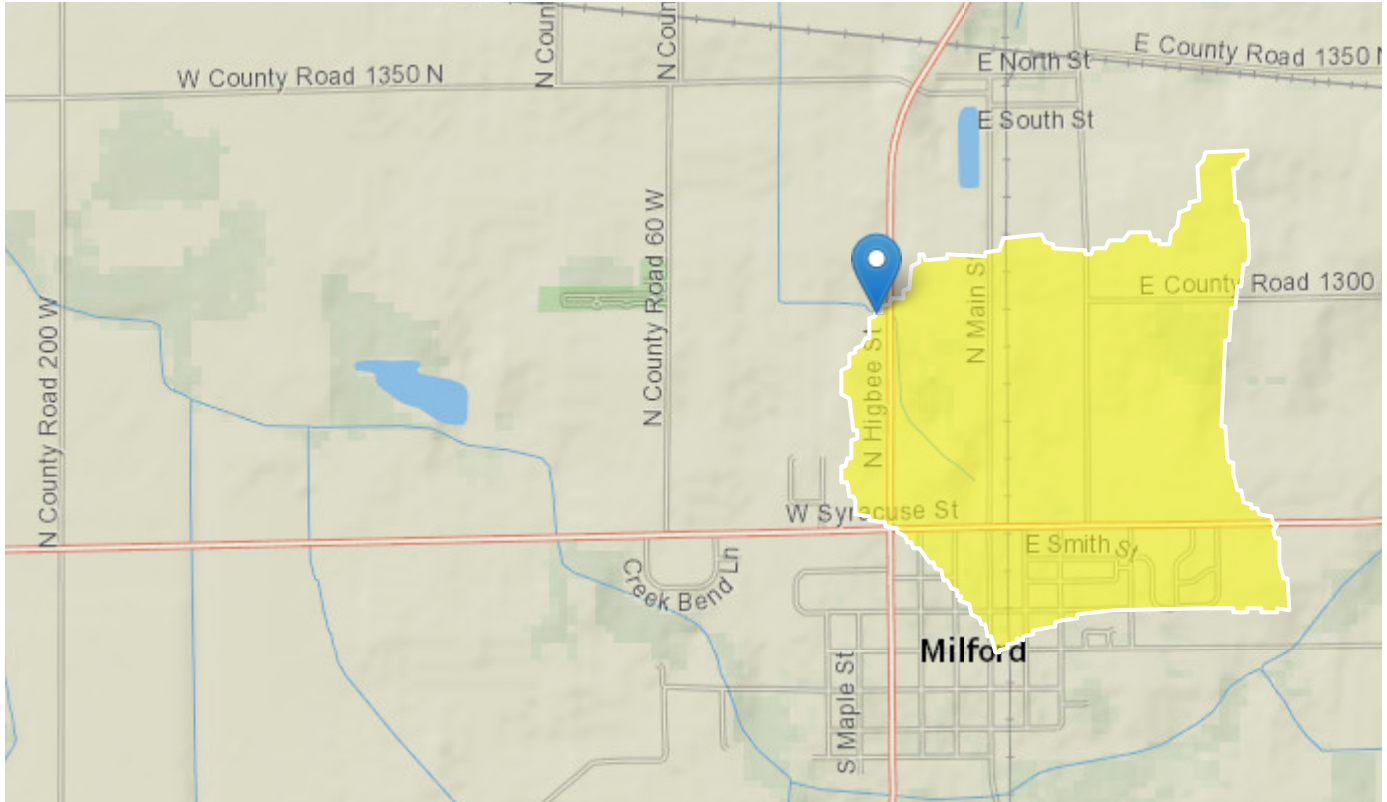
StreamStats Report

Region ID: IN

Workspace ID: IN20191114181038520000

Clicked Point (Latitude, Longitude): 41.42065, -85.85092

Time: 2019-11-14 12:10:55 -0600



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.691	square miles
T2INDNR	Average transmissivity (ft ² /d) for the full depth of unconsolidated deposits from InDNR well database.	7669	square feet per day
LOWREG	Low Flow Region Number	1728	dimensionless
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	61	ft per day

Parameter Code	Parameter Description	Value	Unit
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	26987.82	dimensionless
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	3.4	percent

General Flow Statistics Parameters[Harmonic Mean Northern Region 2016 5102]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.691	square miles	6.33	856
T2INDNR	Avg_Transmissivity	7669	square feet per day	1700	7590
LOWREG	Low Flow Region Number	1728	dimensionless		

General Flow Statistics Disclaimers[Harmonic Mean Northern Region 2016 5102]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

General Flow Statistics Flow Report[Harmonic Mean Northern Region 2016 5102]

Statistic	Value	Unit
Harmonic Mean Streamflow	1.2	ft ³ /s

General Flow Statistics Citations

Martin, G.R., Fowler, K.K., and Arihood, L.D.,2016, Estimating selected low-flow frequency statistics and harmonic-mean flows for ungaged, unregulated streams in Indiana (ver 1.1, October 2016): U.S. Geological Survey Scientific Investigations Report 2016–5102, 45 p. (<http://dx.doi.org/10.3133/sir20165102>)

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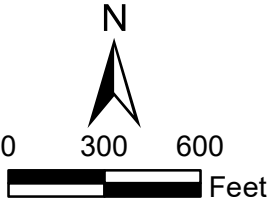
Application Version: 4.3.8



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar

Legend

- Study Area
- Ditch
- Data Point
- Wetland
- Culvert
- 9 Photo Number and Direction



**CR 1300N to SR 15
Roadway Extension
Kosciusko County, Indiana
Des. No. 1801935
Photo Log**



Photo 1: Facing northwest at Preston Miles Ditch



Photo 2: Facing west at farm field, west of SR 15, and Wetland 1



Photo 3: Facing north at Wetland 1



Photo 4: Facing west at Data Point W-01 within Wetland 1



Photo 5: Data Point W-01 soil



Photo 6: Facing east at edge of Wetland 1 and upland farm field



Photo 7: Facing northeast from upland data point W-01UP



Photo 8: Facing southwest at Preston Miles Ditch



Photo 9: Facing south at Preston Miles Ditch box culvert and SR 15



Photo 10: Facing southeast at Wetland 2



Photo 11: Facing north at east side of SR 15 and Wetland 2



Photo 12: Soil at Wetland 2 data point W-02



Photo 13: Facing southeast at pond (off-site)



Photo 14: Facing east at farm field and proposed extension area



Photo 15: Facing west at proposed extension area



Photo 16: Facing east at proposed extension area



Photo 17: Facing northeast at CR 1300 N



Photo 18: Facing west at CR 1300 N



Photo 19: Facing north at culvert



Photo 20: Facing north at farm field from culvert

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Des.1801935, 1300 N Ext. over Norfolk Southern RR City/County: Milford/Kosciusko County Sampling Date: 9/12/2019
 Applicant/Owner: INDOT State: IN Sampling Point: W-01
 Investigator(s): Laura Jack & Debra White Section, Township, Range: 4,5,8,&9, T 34N,R 6E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): concave
 Slope (%): 0 Lat: 41.420974°N Long: -85.850962°W Datum: NAD83
 Soil Map Unit Name: Hx- Houghton Muck, underdrained 0 to 1 percent slopes (hydric) NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks:	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5ft</u>)				
1. <u>Panicum virgatum</u>	50	Yes	FAC	
2. <u>Setaria faberi</u>	30	Yes	FACU	
3. <u>Persicaria pensylvanica</u>	10	No	FACW	
4. <u>Echinochloa muricata</u>	10	No	OBL	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
100 =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 2 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>30</u>	x 4 = <u>120</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>100</u> (A)	<u>300</u> (B)
Prevalence Index = B/A = <u>3.00</u>	

Hydrophytic Vegetation Indicators:
1 - Rapid Test for Hydrophytic Vegetation
2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0¹
4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	7.5YR 2.5/1	100					muck	
1-18	7.5YR 2.5/1	100					loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Des.1801935, 1300 N Ext. over Norfolk Southern RR City/County: Milford/Kosciusko County Sampling Date: 9/12/2019
 Applicant/Owner: INDOT State: IN Sampling Point: W-01UP
 Investigator(s): Laura Jack & Debra White Section, Township, Range: 4,5,8,&9, T 34N,R 6E
 Landform (hillside, terrace, etc.): roadside Local relief (concave, convex, none): convex
 Slope (%): _____ Lat: 41.420949°N Long: -85.850496°W Datum: NAD83
 Soil Map Unit Name: Pb-palms muck (hydric) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____																					
3. _____																					
4. _____																					
5. _____																					
=Total Cover																					
Sapling/Shrub Stratum	(Plot size: _____)				Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;">Total % Cover of:</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>32</u></td> <td>x 4 = <u>128</u></td> </tr> <tr> <td>UPL species <u>60</u></td> <td>x 5 = <u>300</u></td> </tr> <tr> <td>Column Totals: <u>92</u> (A)</td> <td><u>428</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.65</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>32</u>	x 4 = <u>128</u>	UPL species <u>60</u>	x 5 = <u>300</u>	Column Totals: <u>92</u> (A)	<u>428</u> (B)	Prevalence Index = B/A = <u>4.65</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>0</u>	x 2 = <u>0</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>32</u>	x 4 = <u>128</u>																				
UPL species <u>60</u>	x 5 = <u>300</u>																				
Column Totals: <u>92</u> (A)	<u>428</u> (B)																				
Prevalence Index = B/A = <u>4.65</u>																					
1. _____																					
2. _____																					
3. _____																					
4. _____																					
5. _____																					
=Total Cover																					
Herb Stratum	(Plot size: <u>5ft</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Glycine max</u>		60	Yes	UPL																	
2. <u>Setaria faberi</u>		20	Yes	FACU																	
3. <u>Chenopodium album</u>		5	No	FACU																	
4. <u>Cirsium arvense</u>		5	No	FACU																	
5. <u>Abutilon theophrasti</u>		2	No	FACU																	
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
92 =Total Cover																					
Woody Vine Stratum	(Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>																
1. _____																					
2. _____																					
=Total Cover																					
Remarks: (Include photo numbers here or on a separate sheet.)																					

SOIL

Sampling Point: W-01UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	7.5YR 2.5/1	100					clay loam	
10-18	10YR 5/3	100					clay loam	fill-gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel
 Depth (inches): 12

Hydric Soil Present? Yes No

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Des.1801935, 1300 N Ext. over Norfolk Southern RR City/County: Milford/Kosciusko County Sampling Date: 9/12/2019
 Applicant/Owner: INDOT State: IN Sampling Point: W-02
 Investigator(s): Laura Jack & Debra White Section, Township, Range: 4,5,8,&9, T 34N,R 6E
 Landform (hillside, terrace, etc.): _____ Local relief (concave, convex, none): concave
 Slope (%): _____ Lat: 41.420813°N Long: -85.850176°W Datum: NAD83
 Soil Map Unit Name: Pb- Palms muck (hydric) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: _____	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____					Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. _____																					
3. _____																					
4. _____																					
5. _____																					
				=Total Cover																	
Sapling/Shrub Stratum	(Plot size: _____)																				
1. _____					Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x 4 = <u>80</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>220</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.44</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>220</u> (B)	Prevalence Index = B/A = <u>2.44</u>	
Total % Cover of:	Multiply by:																				
OBL species <u>0</u>	x 1 = <u>0</u>																				
FACW species <u>70</u>	x 2 = <u>140</u>																				
FAC species <u>0</u>	x 3 = <u>0</u>																				
FACU species <u>20</u>	x 4 = <u>80</u>																				
UPL species <u>0</u>	x 5 = <u>0</u>																				
Column Totals: <u>90</u> (A)	<u>220</u> (B)																				
Prevalence Index = B/A = <u>2.44</u>																					
2. _____																					
3. _____																					
4. _____																					
5. _____																					
				=Total Cover																	
Herb Stratum	(Plot size: <u>5ft</u>)																				
1. <i>Phalaris arundinacea</i>		70	Yes	FACW	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <i>Setaria faberi</i>		10	No	FACU																	
3. <i>Cirsium vulgare</i>		10	No	FACU																	
4. _____																					
5. _____																					
6. _____																					
7. _____																					
8. _____																					
9. _____																					
10. _____																					
				90 =Total Cover																	
Woody Vine Stratum	(Plot size: _____)																				
1. _____					Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. _____																					
				=Total Cover																	
Remarks: (Include photo numbers here or on a separate sheet.)																					

SOIL

Sampling Point: W-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 3/2	100					clay loam	
6-18	10YR 3/1	80	7.5YR 4/6	20	C	M	clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Des.1801935, 1300 N Ext. over Norfolk Southern RR City/County: Milford/Kosciusko County Sampling Date: 9/12/2019
 Applicant/Owner: INDOT State: IN Sampling Point: W-02UP
 Investigator(s): Laura Jack & Debra White Section, Township, Range: 4,5,8,&9, T 34N,R 6E
 Landform (hillside, terrace, etc.): roadside Local relief (concave, convex, none): convex
 Slope (%): _____ Lat: 41.421168°N Long: -85.851475°W Datum: NAD83
 Soil Map Unit Name: Pb-Palms muck (hydric) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: _____	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Festuca rubra</i>	50	Yes	FACU	
2. <i>Setaria faberi</i>	10	No	FACU	
3. <i>Phalaris arundinacea</i>	10	No	FACW	
4. <i>Bromus inermis</i>	5	No	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
75 =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
=Total Cover				

Dominance Test worksheet:
 Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: _____ Multiply by: _____
 OBL species 0 x 1 = 0
 FACW species 10 x 2 = 20
 FAC species 0 x 3 = 0
 FACU species 65 x 4 = 260
 UPL species 0 x 5 = 0
 Column Totals: 75 (A) 280 (B)
 Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:
 1 - Rapid Test for Hydrophytic Vegetation
 2 - Dominance Test is >50%
 3 - Prevalence Index is ≤3.0¹
 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 Problematic Hydrophytic Vegetation¹ (Explain)
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: W-02UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-18	10YR 3/2	100					clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Red Parent Material (F21)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ___ No X

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- True Aquatic Plants (B14)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Gauge or Well Data (D9)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____
 Water Table Present? Yes ___ No X Depth (inches): _____
 Saturation Present? Yes ___ No X Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: December 18, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Laura Jack, Michael Baker International 3815 River Crossing Parkway, Suite 20 Indianapolis, IN 46240

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: **IN** County/parish/borough: **Kosciusko** City: **Milford**

Center coordinates of site (lat/long in degree decimal format):

Lat.: **41.421075** Long.: **-85.841268**

Universal Transverse Mercator: **16N**

Name of nearest waterbody: **Preston Miles Ditch**

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Preston Miles Ditch	39.413530	-84.901972	388	Non-wetland	Section 404
Wetland 1	41.420974	-85.850962	0.09	Wetland	Section 404
Wetland 2	41.420813	-85.850176	0.30	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “pre-construction notification” (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant’s acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “*may be*” waters of the U.S. and/or that there “*may be*” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
Map: Aerial map, USGS Topo map, Water Resource Map
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report. Rationale: _____
- Data sheets prepared by the Corps: _____
- Corps navigable waters' study: _____
- U.S. Geological Survey Hydrologic Atlas: 2017 USGS NHD
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Milford
- Natural Resources Conservation Service Soil Survey. Citation: NRCS 2017
- National wetlands inventory map(s). Cite name: USFWS NWI 2017
- State/local wetland inventory map(s): _____
- FEMA/FIRM maps: FEMA Digital Flood Insurance Map
- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): ESRI Aerial Photography
or Other (Name & Date): Field Photographs taken 9/12/2019
- Previous determination(s). File no. and date of response letter: _____
- Other information (please specify): _____

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Signature and date of
Regulatory staff member
completing PJD

Laura Jack 12/18/19
Signature and date of
person requesting PJD
(REQUIRED, unless obtaining
the signature is impracticable)¹

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Des 1801935 CE-4

Appendix G

Public Involvement

This section will be updated after completion of public involvement.

«Owner»
«owner_address»
«owner_city_state_zip»

RE: Des. No. 1801935
Road extension project of County Road 1300 North (CR 1300 N) from Old SR 15 to SR 15
in Milford, Kosciusko County.

Notice of Entry for Investigation
March 4, 2020

Dear «owner»,

The Local TRAX rail overpass program is a partnership with the Indiana Department of Transportation (INDOT), local communities, businesses, industry and railroads to improve the quality of life for residents through large scale rail related transportation projects. INDOT and Kosciusko County propose to proceed with a road extension project for CR 1300 North in the Town of Milford, Kosciusko County, Indiana. The project begins where CR 1300 N currently ends. The proposed project will involve the extension of CR 1300 N on new terrain from its current intersection with Old SR 15 west to SR 15. This project includes the installation of a bridge over the existing Norfolk Railroad and Main Street.

Representatives of INDOT will be conducting subsurface investigations including soil test borings and archaeological investigations including shovel probes for the proposed project between mid-March 2020 (weather dependent) and mid-May (weather dependent).

The purpose of the subsurface investigation is to provide information needed for use in the planning, design and construction of the earth related aspects of the project. The purpose of the archaeology investigation is to complete required documentation to comply with Section 106 of the National Historic Preservation Act of 1966. A portion of the required subsurface investigation work and archaeology work needs to be performed on property that available records indicate you currently own. If you own this property but do not currently occupy it, we request you provide this letter to the current occupant. If you no longer own this property, please let us know.

In order to accomplish the subsurface investigation, it will be necessary for INDOT representatives to access test boring locations on your property with a test drilling rig and a support truck. Furthermore, it may be necessary to clear some brush and/or trees in order to access the appropriate locations for some of the test borings.

Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property.

Indiana Code 8-23-7-26 provides authorized representatives of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of the relevant code and a Notice of Entry discussion sheet, as found on INDOT's website, are attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification of the intention to drill test borings, take shovel probes, and drive on your property in the next several weeks.

If any problems do occur, please contact the field crew or contact the INDOT Project Manager, Jason Holder at 317-233-3427, email: jholder@indot.in.gov or Consultant Project Manager, Charles Boltz at 317-689-6923, email: Charles.Boltz@mbakerintl.com.

Please be aware that Indiana Code § 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from INDOT's entry for the purposes mentioned above in Indiana Code § 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative to present an account of the damages to one of the two above named INDOT staff or representative. They will check the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation.

In addition, you may contact Kathy Heistand, INDOT Real Estate Director, at kheistand@indot.in.gov. The Real Estate Director can provide you with a form to request compensation for damages. After filling out the form, you can return it to the Real Estate Director for consideration, and the Real Estate Director may be contacted if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed you, Indiana Code § 8-23-7-8 provides the following:

The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of the damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

Please be assured it is our sincere desire to cause as little inconvenience and disruption to your property. Thank you in advance for your cooperation.

Sincerely,



Charles Boltz, PE
Consultant Project Manager

Attachments

Des 1801935 CE-4

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
Kosciusko County	41147 / 1702866	Init.	ST 1021	Bridge Rehabilitation Or Repair	Bridge #227:on S. Hand Street over Walnut Creek	Fort Wayne	.05	STPBG		Local Bridge Program	CN	\$637,100.47	\$0.00				\$637,100.47	
Kosciusko County	41147 / 1702866	M 15	ST 1021	Bridge Rehabilitation Or Repair	Bridge #227:on S. Hand Street over Walnut Creek	Fort Wayne	.05	STBG	\$637,200.00	Local Funds	RW	\$0.00	\$0.00		(\$12,000.00)	\$12,000.00		
										Local Bridge Program	RW	\$0.00	\$0.00		(\$48,000.00)	\$48,000.00		
Comments:MACOG 20-24TIP_Res M21-20: move RW from FY ?21 to ?22																		
Warsaw	41153 / 1702849	Init.	ST 1018	Added Travel Lanes	Anchorage Rd (CR 200 N) from SR 15 to Biomet Dr	Fort Wayne	.66	STPBG		Group III Program	CN	\$2,683,763.00	\$0.00				\$2,683,763.00	
										Local Funds	CN	\$0.00	\$670,940.75				\$670,940.75	
Warsaw	41153 / 1702849	A 07	ST 1018	Added Travel Lanes	Anchorage Rd (CR 200 N) from SR 15 to Biomet Dr	Fort Wayne	.66	STBG	\$3,764,800.00	Group III Program	RW	\$328,000.00	\$0.00		\$328,000.00			
										Local Funds	RW	\$0.00	\$82,000.00		\$82,000.00			
Comments:Adding ROW to STIP: MACOG resolution 38-19																		
Warsaw	41154 / 1702850	Init.	ST 1001	Bike/Pedestrian Facilities	Sheridan St, E Clark, & E Ft Wayne St - Between Colfax St and Cook St	Fort Wayne	2.5	STPBG		Local Funds	CN	\$0.00	\$280,851.90			\$280,851.90		
										Local Transportation Alternatives	CN	\$1,123,407.60	\$0.00			\$1,123,407.60		
Warsaw	41154 / 1702850	A 07	ST 1001	Bike/Pedestrian Facilities	Sheridan St, E Clark, & E Ft Wayne St - Between Colfax St and Cook St	Fort Wayne	2.5	TA	\$1,508,200.00	Local Funds	RW	\$0.00	\$20,770.80		\$20,770.80			
										Local Transportation Alternatives	RW	\$83,083.20	\$0.00		\$83,083.20			
Comments:Adding ROW to STIP: MACOG resolution 38-19																		
Indiana Department of Transportation	41642 / 1801809	Init.	US 30	Other Intersection Improvement	1.0 Mile West of SR 15 (at CR 150W/Silveus Crossing Road in Warsaw).	Fort Wayne	1	NHPP		Mobility Construction	CN	\$2,688,000.00	\$672,000.00				\$3,360,000.00	
Indiana Department of Transportation	41642 / 1801809	A 07	US 30	Other Intersection Improvement	1.0 Mile West of SR 15 (at CR 150W/Silveus Crossing Road in Warsaw).	Fort Wayne	1	NHPP	\$3,800,000.00	Mobility Consulting	PE	\$128,000.00	\$32,000.00	\$160,000.00				
Comments:MACOG MPO TIP Resolution 39-19 for DES 1801808. Add PE to FY 2020 for \$160,000.																		
Indiana Department of Transportation	41819 / 1600211	Init.	SR 15	HMA Overlay, Preventive Maintenance	4.63 miles N of US 30 to US 6	Fort Wayne	8.277	STPBG		Road Construction	CN	\$4,030,240.00	\$1,007,560.00	\$5,037,800.00				
Kosciusko County	41847 / 1801935	Init.	IR 1884	New Bridge, Other	Kosciusko County CR1300N Extension over Norfolk Southern Railroad and Main	Fort Wayne	.59	STPBG		Local Funds	RW	\$100,004.00	\$25,001.00	\$125,005.00				
										Local Funds	CN	\$1,450,840.00	\$362,710.00		\$1,813,550.00			
										Local TRAXX program	PE	\$701,760.00	\$175,440.00		\$877,200.00			

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

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

SPONSOR	CONTR ACT # / LEAD	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
	DES																	
Kosciusko County	41847 / 1801935	Init.	IR 1884	New Bridge, Other	Kosciusko County CR1300N Extension over Norfolk Southern Railroad and Main	Fort Wayne	.59	STPBG		Local TRAXX program	RW	\$334,796.00	\$83,699.00	\$418,495.00				
										Local TRAXX program	CN	\$4,857,160.00	\$1,214,290.00		\$6,071,450.00			
Kosciusko County	41952 / 1802917	A 07	IR 1828	Bridge Replacement	Bridge No 161: on CR200S over Walnut Creek	Fort Wayne	.06	STBG	\$1,361,100.00	Local Funds	PE	\$0.00	\$55,860.00	\$55,860.00				
										Local Funds	RW	\$0.00	\$12,000.00			\$12,000.00		
										Local Funds	CN	\$0.00	\$194,360.00					\$194,360.00
										Local Bridge Program	PE	\$223,440.00	\$0.00	\$223,440.00				
										Local Bridge Program	RW	\$48,000.00	\$0.00			\$48,000.00		
										Local Bridge Program	CN	\$777,440.00	\$0.00					\$777,440.00
Comments:Adding new Project to STIP: MACOG resolution 38-19.																		
Indiana Department of Transportation	42153 / 1701385	A 07	US 30	Replace Superstructure	Bridge over Robinson Ditch EBL, 2.60 miles E of SR 19	Fort Wayne	0	NHPP	\$5,196,113.00	Bridge Construction	CN	\$4,156,890.40	\$1,039,222.60			\$5,196,113.00		
Comments:MACOG MPO Initial TIP for DES 1701397, 1701386, 1701385, 1701389, 1701390, 1701396, 1701397, 1701386. Adding CN to FY 2022 for \$5,196,113.																		
Indiana Department of Transportation	42169 / 1800015	Init.	SR 13	Small Structure Replacement	Carries Tennant Ditch, 5.67 Miles North of SR 14.	Fort Wayne	1.006	STPBG		Bridge Construction	CN	\$1,853,972.80	\$463,493.20				\$2,317,466.00	
										Bridge ROW	RW	\$48,000.00	\$12,000.00			\$60,000.00		
Indiana Department of Transportation	42460 / 1701383	A 15	SR 14	Small Structure Replacement	Carrying Joseph Metzger Ditch, 4.00 miles E of SR 15	Fort Wayne	0	STBG	\$0.00	Bridge Construction	CN	-\$613,502.40	-\$153,375.60		(\$8,000.00)	(\$758,878.00)		
										Bridge ROW	RW	-\$54,000.00	-\$13,500.00	(\$15,000.00)	(\$52,500.00)			
Comments:No MPO. Removing STIP funding for DES 1383626																		
Indiana Department of Transportation	42460 / 1901482	A 15	SR 15	Bridge Thin Deck Overlay	Bridge over NS RR [CHICAGO], 04.02 North of SR 14.	Fort Wayne	0	STBG	\$681,844.00	Bridge Construction	CN	\$646,544.00	\$161,636.00		\$8,000.00	\$800,180.00		
										Bridge ROW	RW	\$38,000.00	\$9,500.00	\$15,000.00	\$32,500.00			
Comments:MACOG MPO TIP Resolution M32-19 dated 12/27/19 for DES 1901482. DES 1383626, 17013836																		
Kosciusko County	42772 / 1902838	A 25	IR 1828	Bridge Replacement	Bridge #30: on Beer Road over Turkey Creek	Fort Wayne	.16	STBG	\$1,896,200.00	Local Funds	PE	\$0.00	\$54,900.00		\$54,900.00			
										Local Funds	RW	\$0.00	\$12,060.00					\$12,060.00

Sponsor	DES	Contract	Resolution	Route	Location	Work Type	Fund Type	Phase	Federal	Match	SFY 2020	SFY 2021	SFY 2022	SFY 2023	SFY 2024	Estimated to Complete	Letting Date
Kosciusko Co.	1592891	-	Res. 26-19		Countywide Bridge Inspection and inventory program for Cycle Years 2018-2021	Bridge Inspections	Bridge	PE	\$ 69,021	\$ 17,225	\$ 75,636	\$ 10,640				\$ 86,276	7/13/1905
Kosciusko Co.	1702866	B-41147	M21-20		Bridge #227: on S Hand St over Walnut Creek	Bridge Rehabilitation or Repair	Bridge	RW	\$ 48,000	\$ 12,000			\$ 60,000			\$ 1,113,725	11/16/2022
Kosciusko Co.	1702866	B-41147	Res. 26-19		Bridge #227: on S Hand St over Walnut Creek	Bridge Rehabilitation or Repair	Bridge	CN	\$ 637,101	\$ 159,275				\$ 796,376		\$ 1,113,725	11/16/2022
Kosciusko Co.	1801935		M24-19		CR 1300N Extension over NS RR and Main St	New Bridge	Local Trax	PE	\$ 701,760	\$ 175,440		\$ 877,200				\$ 7,367,145	2021
Kosciusko Co.	1801935		M24-19		CR 1300N Extension over NS RR and Main St	New Bridge	Local Trax	RW	\$ 334,796	\$ 83,699	\$ 418,495					\$ 7,367,145	2021
Kosciusko Co.	1801935		M24-19		CR 1300N Extension over NS RR and Main St	New Bridge	Local Trax	CN	\$ 4,857,160	\$ 1,214,290		\$ 6,071,450				\$ 7,367,145	2021
Kosciusko Co.	1802917	B-41952	Res. 38-19		Bridge #161: on CR 200 S over Walnut Creek	Bridge Replacement, Other Construction	Bridge	PE	\$ 223,440	\$ 55,860	\$ 279,300					\$ 1,361,100	12/13/2023
Kosciusko Co.	1802917	B-41952	Res. 38-19		Bridge #161: on CR 200 S over Walnut Creek	Bridge Replacement, Other Construction	Bridge	RW	\$ 48,000	\$ 12,000			\$ 60,000			\$ 1,361,100	12/13/2023
Kosciusko Co.	1802917	B-41952	Res. 38-19		Bridge #161: on CR 200 S over Walnut Creek	Bridge Replacement, Other Construction	Bridge	CN	\$ 777,440	\$ 194,360				\$ 971,800		\$ 1,361,100	12/13/2023
Kosciusko Co.	1902838		Res. 16-20		Bridge 30: on Beer Rd over Turkey Creek	Bridge Rehabilitation or Repair	ST Bridge	PE	\$ 219,600	\$ 54,900		\$ 274,500				\$ 1,896,200	12/11/2024
Kosciusko Co.	1902838		Res. 16-20		Bridge 30: on Beer Rd over Turkey Creek	Bridge Rehabilitation or Repair	ST Bridge	RW	\$ 48,240	\$ 12,060				\$ 60,300		\$ 1,896,200	12/11/2024
Warsaw	1702849	R-41153	Res. 38-19		Anchorage Rd (CR 200 N) from SR 15 to Biomet Dr	Added Travel Lanes	ST STBG	RW	\$ 328,000	\$ 82,000		\$ 410,000				\$ 3,764,074	12/7/2022
Warsaw	1702849	R-41153	Res. 26-19		Anchorage Rd (CR 200 N) from SR 15 to Biomet Dr	Added Travel Lanes	ST STBG	CN	\$ 2,683,763	\$ 670,941				\$ 3,354,704		\$ 3,764,074	12/7/2022
Warsaw	1702850	R-41154	Res. 38-19		Sheridan St, E Clark & Ft. Wayne St - Between Colfax St and Cook St	Bike/Pedestrian Facilities	ST TAP	RW	\$ 83,083	\$ 20,771		\$ 103,854				\$ 1,508,114	11/7/2021
Warsaw	1702850	R-41154	Res. 26-19		Sheridan St, E Clark & Ft. Wayne St - Between Colfax St and Cook St	Bike/Pedestrian Facilities	ST TAP	CN	\$ 1,123,408	\$ 280,852			\$ 1,404,260			\$ 1,508,114	11/7/2021
Warsaw	1802784		Res. 26-19		Hickory St: from Market St to Main St	Safety Revisions	ST STBP	CN	\$ 256,000	\$ 64,000		\$ 320,000				\$ 320,000	2021
Winona Lake	1600788	R-40201	M08-20		Intersection of Argonne Rd, Winona Ave, Kings Highway and Park Ave	Intersection Improvement, Roundabout	ST STBG	RW	\$ 248,314	\$ 62,078		\$ 310,392				\$ 1,033,618	1/12/2022
Winona Lake	1600788	R-40201	Res. 26-19		Intersection of Argonne Rd, Winona Ave, Kings Highway and Park Ave	Intersection Improvement, Roundabout	ST STBG	CN	\$ 847,320	\$ 211,830			\$ 1,059,150			\$ 1,329,150	1/12/2022
INDOT	1383494	RS-40081	Res. 26-19	SR 13	SR 13, From SR 14 to 1.10 miles S of US 30	HMA Overlay, Minor Structural	Road Construction	CN	\$ 3,658,810	\$ 914,702	\$ 4,573,512					\$ 4,573,512	12/11/2019
INDOT	1401856	RS-40081	Res. 26-19	SR 14	SR 14, From SR 114 to 0.36 miles W of SR 15	HMA Overlay Minor Structural	ST STBG	CN	\$ 2,066,808	\$ 516,702	\$ 2,583,510					\$ 2,583,510	12/11/2019
INDOT	1592636	RS-41819	Res. 26-19	SR 15	SR 15, 0.50 Miles S of US 30 to 4.63 Miles N of US 30	HMA Overlay, Preventive Maintenance	ST STBG	CN	\$ 1,564,619	\$ 391,155	\$ 1,955,774					\$ 1,955,774	12/11/2019
INDOT	1600207	RS-40081	Res. 26-19	SR 13	SR 13, From US 30 to 9.46 Miles N of US 30	HMA Overlay, Preventive Maintenance	ST STBG	CN	\$ 2,796,140	\$ 699,035	\$ 3,495,175					\$ 3,495,175	12/11/2019
INDOT	1600211	RS-40081	Res. 26-19	SR 15	SR 15, 4.63 miles N of US 30 to US 6	HMA Overlay, Preventive Maintenance	ST STBG	CN	\$ 1,981,059	\$ 495,265	\$ 2,476,324					\$ 2,476,234	12/11/2019
INDOT	1600432	B-41082	Res. 20-17	SR 13	SR 13, Over Plunge Creek, 0.60 Miles South of SR 14	Bridge Replacement, Other Construction	Bridge Construction	RW	\$ 34,000	\$ 8,500	\$ 42,500					\$ 1,316,451	12/9/2020
INDOT	1600432	B-41082	Res. 26-19	SR 13	SR 13, Over Plunge Creek, 0.60 Miles South of SR 14	Bridge Replacement, Other Construction	Bridge Construction	CN	\$ 1,019,161	\$ 254,790		\$ 1,273,951				\$ 1,316,451	12/9/2020
INDOT	1600468	B-41082	Res. 26-19	SR 15	SR 15, Over Eagle Creek, 0.35 Miles South of SR 25	Bridge Replacement, Other Construction	Bridge	RW	\$ 64,000	\$ 16,000	\$ 80,000					\$ 1,917,980	12/09/2020
INDOT	1600468	B-41082	Res. 26-19	SR 15	SR 15, Over Eagle Creek, 0.35 Miles South of SR 25	Bridge Replacement, Other Construction	Bridge	CN	\$ 1,470,384	\$ 367,596		\$ 1,837,980				\$ 1,917,980	12/09/2020
INDOT	1600998	R-41113	Res. 26-19	SR 15	SR 15, From 0.70 miles N of SR 14 (N limit Silver Lake) to 1.97 miles S of 30	HMA Overlay Minor Structural	NHPP	RW	\$ 28,000	\$ 7,000	\$ 35,000					\$ 5,200,968	12/9/2020
INDOT	1600998	R-41113	Res. 26-19	SR 15	SR 15, From 0.70 miles N of SR 14 (N limit Silver Lake) to 1.97 miles S of 30	HMA Overlay Minor Structural	NHPP	CN	\$ 4,132,774	\$ 1,033,194		\$ 5,165,968				\$ 5,200,968	12/9/2020
INDOT	1601007	RS-39908	Res. 26-19	SR 19	SR 19, From 0.43 Mi N of SR 25 (N Lmt Mentone) to 0.77 Mi S of US 30 (S Lmt Etna Green)	HMA Overlay Minor Structural	NHPP	CN	\$ 1,755,075	\$ 438,769		\$ 2,193,844				\$ 9,193,844	12/9/2020
INDOT	1601008	RS-39912	Res. 26-19	SR 19	SR 19, from 5.53 Miles S of US 6 (CR 900N) to 0.49 Miles N of US 6 (Berlin Court Ditch)	HMA Overlay Minor Structural	ST STBG	CN	\$ 3,040,727	\$ 760,182		\$ 3,800,909				\$ 3,800,909	1/13/2021
INDOT	1601012	R-39908	Res. 26-19		SR 19 to 3.00 miles E of SR 15 (Center St)	HMA Overlay, Structural	NHPP	RW	\$ 14,000	\$ 35,000	\$ 17,500					\$ 16,535,790	12/9/2020

Des 1801935 CE-4

Appendix I

Additional Studies

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

ProjectNumber	SubProjectCode	County	Property
1800240	1800240	Kosciusko	Pierceton Community Park
1800262	1800262	Kosciusko	Pierceton Community Park
1800289	1800289	Kosciusko	Kelly Park
1800320	1800320	Kosciusko	Winona Lake Park
1800321	1800321	Kosciusko	Lucerne Park and YMCA Camp Lucerne
1800322	1800322	Kosciusko	Levin Salvage Yard/Bixler Park
1800405	1800405I	Kosciusko	Dewart Lake Public Access Site
1800420	1800420	Kosciusko	North Webster Town Park
1800508	1800508	Kosciusko	Southtown Shores Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Environmental Justice Analysis for CR 1300N Extension Local Trax (Des 1801935)

		COC	AC
		Kosciusko County, Indiana	Census Tract 9611, Kosciusko County, Indiana
LOW-INCOME			
B 17001001	Population for whom poverty status is determined: Total	76,965	5,613
B 17001002	Population for whom poverty status is determined: Income in past 12 months below poverty	7,913	415

Percent Low-Income	10.3%	7.4%
125 Percent of COC	12.9%	AC<125% COC
Potential Low-Income EJ Impact?		No

MINORITY			
B 03002001	Total population: Total	78,806	5,736
B 03002002	Total population: Not Hispanic or Latino	72,561	4,959
B 03002003	Total population: Not Hispanic or Latino; White alone	69,436	4,827
B 03002004	Total population: Not Hispanic or Latino; Black or African American alone	547	8
B 03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	272	14
B 03002006	Total population: Not Hispanic or Latino; Asian alone	933	10
B 03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	12	0
B 03002008	Total population: Not Hispanic or Latino; Some other race alone	329	0
B 03002009	Total population: Not Hispanic or Latino; Two or more races	1,032	100
B 03002010	Total population: Hispanic or Latino	6,245	777
B 03002011	Total population: Hispanic or Latino; White alone	4,563	738
B 03002012	Total population: Hispanic or Latino; Black or African American alone	6	0
B 03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	0	0
B 03002014	Total population: Hispanic or Latino; Asian alone	21	21
B 03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0
B 03002016	Total population: Hispanic or Latino; Some other race alone	1,455	18
B 03002017	Total population: Hispanic or Latino; Two or more races	200	0

Number Non-White/Minority (P007001-P007003)	9,370	909
Percent Non-White/Minority	11.9%	15.8%
125 Percent of COC	14.9%	AC>125% COC
Potential Minority EJ Impact?		Yes

County Selection Map

Geographies: County

Year: 2018

- Select
- Clear Geos
- Identify
- Filters
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- Print
- Share
- Table
- Chart
- Data Notes

OR LATINO ORIGIN BY RACE

Program: American Community Survey

8,2017,2016,2015,2014,2013,2012,2011,2010
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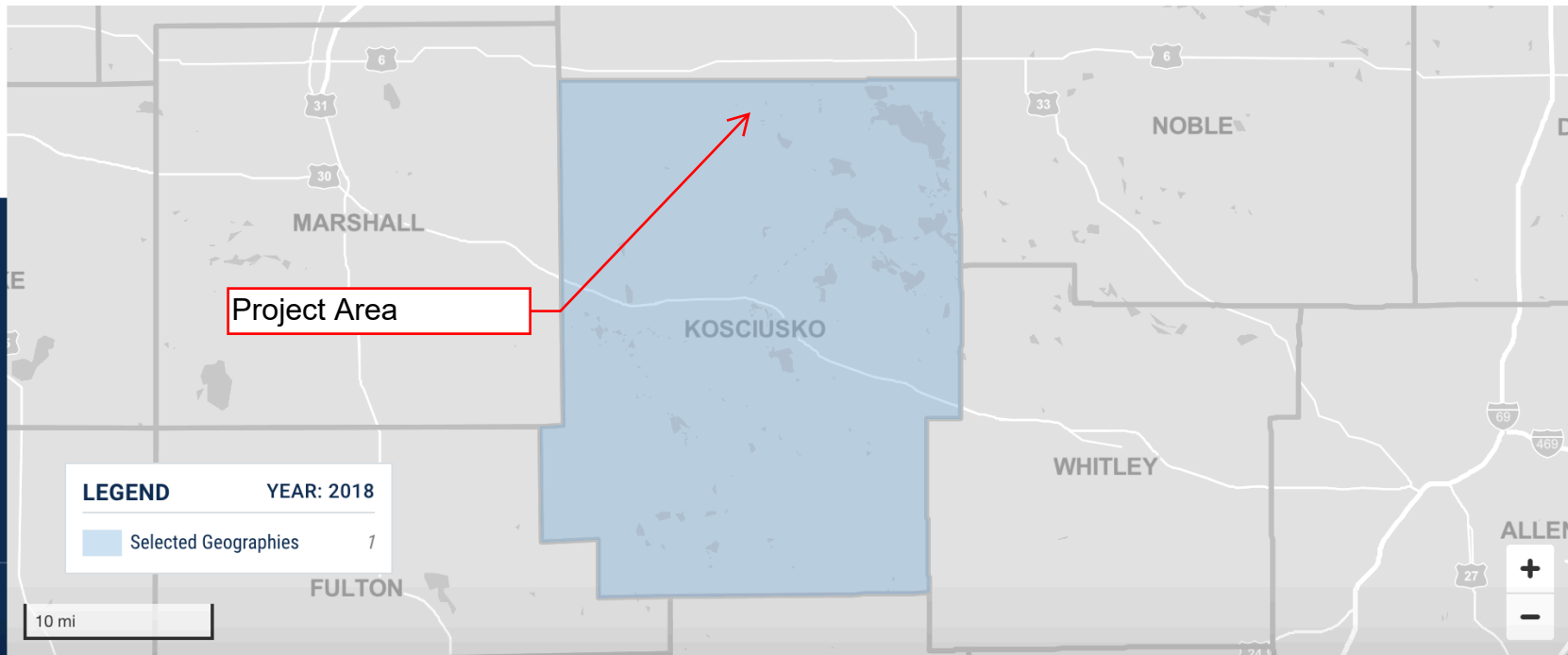
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ack America People, Places and Economy

ack@census.gov



Census Tract Selection Map

Geographies: Census Tract

Year: 2018

1 Results

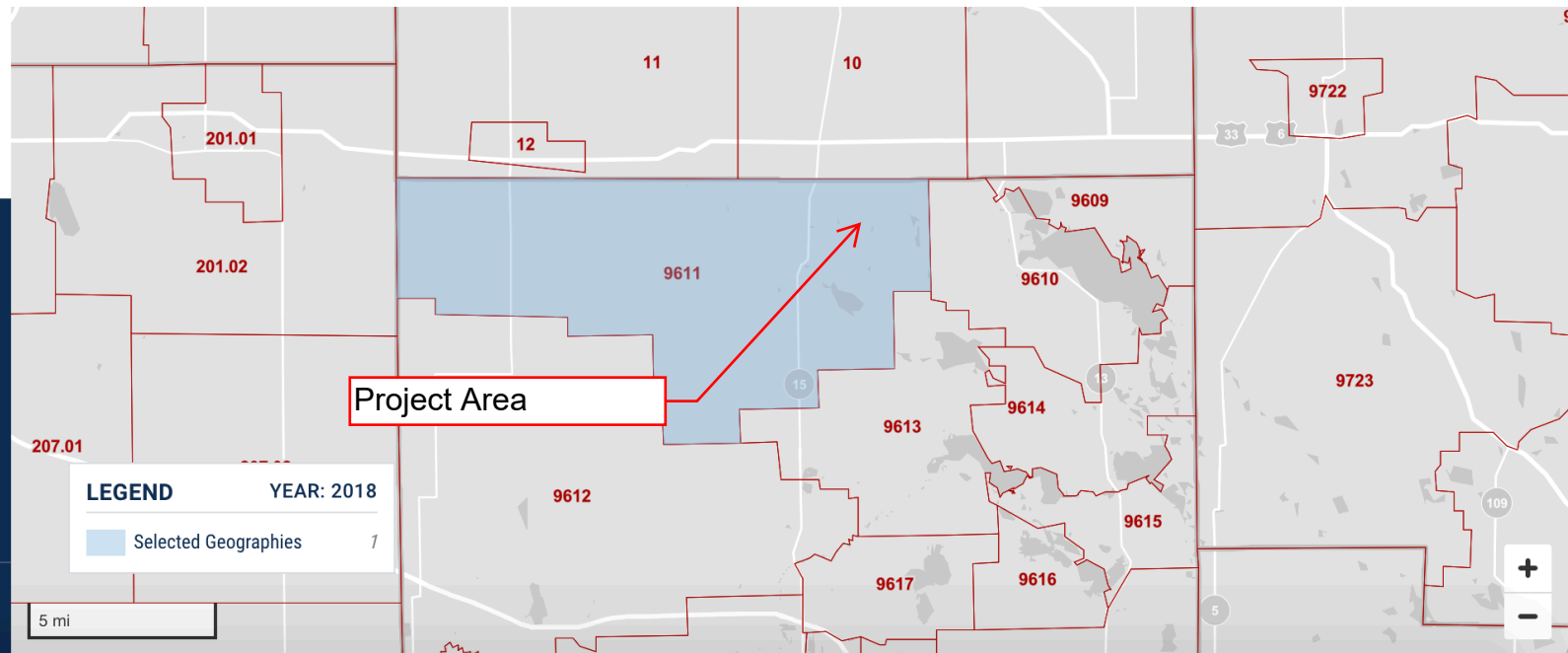
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SELECTION MAP

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HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B03002



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- Information Quality
- FOIA
- Data Protection and Privacy Policy
- U.S. Department of Commerce
- Release Notes

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HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey
TableID: 803002

Product: 2018: ACS 5-Year Estimates Detailed Tables
Universe: Total population



1 Results [X Close Download](#)

[Download Selected \(0\)](#)

Label	Kosciusko County, Indiana		Census Tract 9611, Kosciusko County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
v Total:	78,806	*****	5,736	±395
v Not Hispanic or Latino:	72,561	*****	4,959	±590
White alone	69,436	±204	4,827	±594
Black or African American alone	547	±152	8	±15
American Indian and Alaska Native alone	272	±90	14	±20
Asian alone	933	±116	10	±14
Native Hawaiian and Other Pacific Islander alone	12	±20	0	±16
Some other race alone	329	±261	0	±16
v Two or more races:	1,032	±204	100	±85
Two races including Some other race	29	±132	0	±16
Two races excluding Some other race, and three or more races	1,003	±201	100	±85
v Hispanic or Latino:	6,245	*****	777	±351
White alone	4,563	±512	738	±350
Black or African American alone	6	±12	0	±16
American Indian and Alaska Native alone	0	±27	0	±16
Asian alone	21	±30	21	±30
Native Hawaiian and Other Pacific Islander alone	0	±27	0	±16
Some other race alone	1,455	±485	18	±18
v Two or more races:	200	±128	0	±16
Two races including Some other race	171	±125	0	±16
Two races excluding Some other race, and three or more races	29	±37	0	±16

0 HISPANIC OR LATINO ORIGIN BY RACE
Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: 803002

- Accessibility
- Information Quality
- FOIA
- Data Protection and Privacy Policy
- U.S. Department of Commerce
- Release Notes

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
TableID: B17001

Product: 2018: ACS 5-Year Estimates Detailed Tables
Universe: Population for whom poverty status is determined

CUSTOMIZE TABLE

10 Results [Close Download](#)

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (WHITE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001A

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001B

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (AMERICAN INDIAN AND ALASKA NATIVE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001C

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (ASIAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001D

Send Feedback cedsci.feedback@census.gov

Label	Kosciusko County, Indiana		Census Tract 9611, Kosciusko County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	76,965	±279	5,613	±383
▼ Income in the past 12 months below poverty level:	7,913	±944	415	±149
▼ Male:	3,153	±507	145	±70
Under 5 years	402	±165	20	±23
5 years	69	±65	0	±16
6 to 11 years	423	±169	11	±10
12 to 14 years	127	±61	7	±8
15 years	71	±53	4	±6
16 and 17 years	208	±110	10	±9
18 to 24 years	338	±125	11	±15
25 to 34 years	403	±140	25	±30
35 to 44 years	273	±111	4	±7
45 to 54 years	248	±92	11	±17
55 to 64 years	283	±92	4	±6
65 to 74 years	223	±81	31	±34
75 years and over	85	±57	7	±8
▼ Female:	4,760	±596	270	±110
Under 5 years	305	±120	12	±15
5 years	96	±48	3	±5
6 to 11 years	442	±158	15	±18
12 to 14 years	246	±100	4	±6
15 years	116	±84	0	±16
16 and 17 years	130	±72	4	±6
18 to 24 years	637	±165	35	±44
25 to 34 years	864	±191	50	±39
35 to 44 years	485	±140	27	±26

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
TableID: B17001

Product: 2018: ACS 5-Year Estimates Detailed Tables
Universe: Population for whom poverty status is determined

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (WHITE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001A

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001B

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (AMERICAN INDIAN AND ALASKA NATIVE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001C

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (ASIAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001D

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (HISPANIC OR LATINO ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001E

Label	Kosciusko County, Indiana		Census Tract 9611, Kosciusko County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
45 to 54 years	403	±115	15	±24
55 to 64 years	438	±112	33	±28
65 to 74 years	372	±133	44	±35
75 years and over	226	±78	28	±25
Income in the past 12 months at or above poverty level:	69,052	±951	5,198	±417
Male:	35,222	±521	2,693	±268
Under 5 years	2,078	±138	154	±69
5 years	576	±180	55	±52
6 to 11 years	2,755	±235	249	±98
12 to 14 years	1,362	±196	93	±89
15 years	533	±120	11	±15
16 and 17 years	906	±154	34	±33
18 to 24 years	3,029	±182	311	±148
25 to 34 years	4,683	±221	387	±123
35 to 44 years	4,329	±130	311	±109
45 to 54 years	4,665	±98	351	±116
55 to 64 years	5,062	±122	385	±98
65 to 74 years	3,258	±108	262	±90
75 years and over	1,986	±83	90	±50
Female:	33,830	±631	2,505	±250
Under 5 years	2,194	±120	189	±102
5 years	419	±134	37	±34
6 to 11 years	2,647	±264	246	±91
12 to 14 years	1,238	±189	33	±30
15 years	538	±117	46	±43
16 and 17 years	852	±118	35	±36

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
TableID: B17001

Product: 2018: ACS 5-Year Estimates Detailed Tables
Universe: Population for whom poverty status is determined

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (WHITE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001A

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001B

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (AMERICAN INDIAN AND ALASKA NATIVE ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001C

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (ASIAN ALONE)

Survey/Program: American Community Survey
Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
Table: B17001D

Label	Kosciusko County, Indiana		Census Tract 9611, Kosciusko County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
Under 5 years	2,078	±138	154	±69
5 years	576	±180	55	±52
6 to 11 years	2,755	±235	249	±98
12 to 14 years	1,362	±196	93	±89
15 years	533	±120	11	±15
16 and 17 years	906	±154	34	±33
18 to 24 years	3,029	±182	311	±148
25 to 34 years	4,683	±221	387	±123
35 to 44 years	4,329	±130	311	±109
45 to 54 years	4,665	±98	351	±116
55 to 64 years	5,062	±122	385	±98
65 to 74 years	3,258	±108	262	±90
75 years and over	1,986	±83	90	±50
▼ Female:	33,830	±631	2,505	±250
Under 5 years	2,194	±120	189	±102
5 years	419	±134	37	±34
6 to 11 years	2,647	±264	246	±91
12 to 14 years	1,238	±189	33	±30
15 years	538	±117	46	±43
16 and 17 years	852	±118	35	±36
18 to 24 years	2,587	±224	218	±89
25 to 34 years	3,834	±240	303	±103
35 to 44 years	4,025	±140	264	±96
45 to 54 years	4,717	±137	296	±108
55 to 64 years	4,841	±132	472	±104
65 to 74 years	3,406	±128	215	±75
75 years and over	2,532	±128	151	±86

From: "Bales, Ronald" <rbales@indot.IN.gov>
Date: Monday, October 19, 2020 at 8:07 AM
To: Erin Mulryan <emulryan@sjcainc.com>
Cc: "Clift, Wm. Todd" <WClift@indot.IN.gov>, "Miller, Brandon" <BraMiller1@indot.IN.gov>
Subject: FW: Des 1801935 CR 1300N Local Trax EJ Analysis

Please see below from Todd as it is dependent on the appraisal. If you have any questions, please let us know.

Ron Bales

INDOT-Environmental Services Division
Office: (317) 515-7908
Email: rbales@indot.in.gov

From: Clift, Wm. Todd <WClift@indot.IN.gov>
Sent: Thursday, October 15, 2020 1:55 PM
To: Bales, Ronald <rbales@indot.IN.gov>
Cc: Miller, Brandon <BraMiller1@indot.IN.gov>
Subject: Des 1801935 CR 1300N Local Trax EJ Analysis

It will depend on how it is appraised. If the Appraiser changes the Highest and Best Use (H&BU), that would trigger relocation. If that do not change the H&BU and pay to relocate the runway via a CTC or damage, there would be no relocation benefits offered unless there was personal property within the acquired RW that would need to be moved.

Todd

Wm. Todd Clift

*Support, Property Management, Relocation & LPA
Section Manager*
100 N. Senate Avenue, Room N642
Indianapolis, IN 46204
Office: (317) 232-5060
Fax: (317) 233-3055
Email: wclift@indot.in.gov



From: Bales, Ronald <rbales@indot.IN.gov>
Sent: Thursday, October 15, 2020 1:26 PM
To: Clift, Wm. Todd <WClift@indot.IN.gov>
Cc: Miller, Brandon <BraMiller1@indot.IN.gov>
Subject: FW: Des 1801935 CR 1300N Local Trax EJ Analysis

We received an interesting question posed for a local trax project regarding acquisition of ROW from a private airport. Please see below. Would this be a relocation if they can no longer use it as a runway? We haven't dealt with private airports much so your insight would be appreciated. Thank you.

Ron Bales

INDOT-Environmental Services Division

Office: (317) 515-7908

Email: rbales@indot.in.gov

From: Erin Mulryan <emulryan@sjcainc.com>
Sent: Thursday, October 15, 2020 12:38 PM
To: Bales, Ronald <rbales@indot.IN.gov>
Subject: Re: Des 1801935 CR 1300N Local Trax EJ Analysis

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

Hi Ron, thank you for the review. After talking to Christian in my office a little more, we are wondering if the land acquisition from the private airport (see attached RFI map) would be considered a relocation because the acquisition and roadway will render the airstrip unusable. Its past use has been for crop dusting planes, although we have been told by the prime consultant (Michael Baker Intl) that the owner uses it infrequently for personal use.

Thoughts? We are aiming to have the draft CE submitted right before thanksgiving.

Thank You,
Erin Mulryan, MPA
Director of Environmental Services
SJCA Inc.
9102 N. Meridian St, Suite 200
Indianapolis, IN 46260
317-566-0629 (Main office); 317-634-4110 (Fountain Square office)
317-566-0633 (fax)
(Due to the coronavirus, I am working from home and can be reached on my cell, 317-525-1192)
emulryan@sjcainc.com



From: "Bales, Ronald" <rbales@indot.IN.gov>
Date: Thursday, October 15, 2020 at 9:06 AM
To: erin <erin@green3studio.com>
Subject: RE: Des 1801935 CR 1300N Local Trax EJ Analysis
Resent-From: <erin@green3studio.com>

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project will require right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low income

populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Ron Bales

INDOT-Environmental Services Division

Office: (317) 515-7908

Email: rbales@indot.in.gov

From: Erin Mulryan <erin@green3studio.com>
Sent: Sunday, September 27, 2020 4:47 PM
To: Bales, Ronald <rbales@indot.IN.gov>
Subject: Des 1801935 CR 1300N Local Trax EJ Analysis

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

Hi Ron, I hope you are doing well. Attached is the EJ analysis for the abovementioned project for review and comment. I have also attached the ECL sent in October 2019- the project hasn't undergone any big changes since the ECL mailing. I have also attached the schematic from the 2016 Eng Report for reference re: preliminary design. The word doc has the P&N text from the 800.11 and CE draft (CE anticipated to be submitted for review around end of October). Please let me know if you need any more project information for your review.

Also, I sent an email to you, Meghan, Brandon, and Tom B regarding the SJCA Inc acquisition of Green 3. I sent a question to the ERMS/ITAP help desk regarding what my staff and I need to do, if anything, regarding getting the firm name changed for our submissions. If you happen to know or can connect me with someone that manages ERMS that can tell me next steps, please forward! Our pre-qualifications have been transferred to SJCA already.

Thank You,
Erin Mulryan, MPA
Director of Environmental Services
SJCA Inc.

9102 N. Meridian St, Suite 200

Indianapolis, IN 46260

317-566-0629 (Main office); 317-634-4110 (Fountain Square office)

317-566-0633 (fax)

(Due to the coronavirus, I am working from home and can be reached on my cell, 317-525-1192 if needed)

emulryan@sjcainc.com

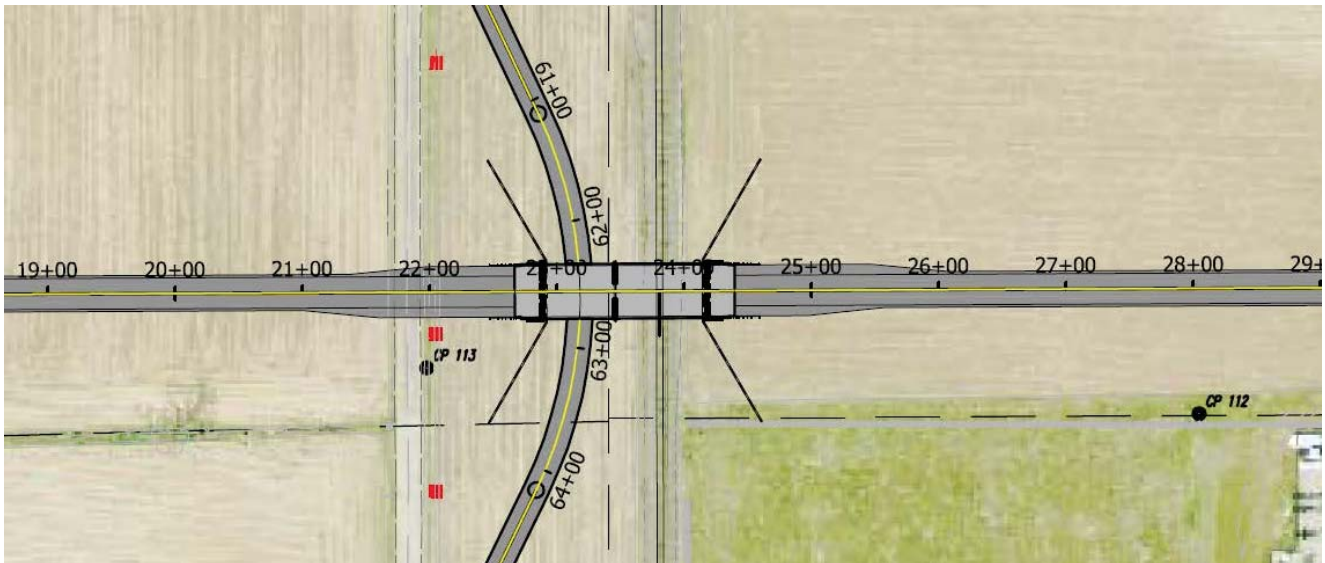


ENGINEER'S REPORT

Kosciusko County Road 1300N Extension
Between Old SR 15 and SR 15
North of the Town of Milford
Kosciusko County

REPORT DATE:


FINAL: July 8, 2016



PREPARED BY:



8415 East 56th Street
Indianapolis, IN 46216
(317) 544 - 4996



Michael J. Halterman, PE

PREPARED FOR:

Kosciusko County
Highway Department

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1. PURPOSE OF REPORT>>

This report documents the engineering assessment phase for the proposed County Road 1300 North Extension. It is the intent of this report to analyze the relevant project information, examine existing site conditions, determine feasible design alternates, and provide conclusions and recommendations to guide the ensuing environmental, survey and design phases.

2. PROJECT LOCATION>>

This project proposes to extend County Road 1300 North (CR 1300 N) from Old State Road 15 to State Road 15 (SR 15), north of the Town of Milford, Kosciusko County, Indiana. There is not an existing road at this location. The proposed route will cross Main Street and a single-track Norfolk Southern Railway line.

CR 1300 N is also known as Milford/Syracuse Road. SR 15 is also known as Higbee Street. Old SR 15 is also known as Old State Road.

The project location is shown in Figure 1. The project location and project site maps are located in Appendix A.



Figure 1: Project Location Map. Map data ©2016 Google

3. PROJECT PURPOSE AND NEED>>

The area north of the Town of Milford is experiencing traffic growth from local development and shipping traffic. The North Central Regional Logistics Council lists the area north of Milford as a bottleneck for truck cargo and passenger traffic. The traffic restriction is created, partly, because CR 1300 N does not directly connect to SR 15.

SR 15 is classified a Major Arterial road, which connects the Town of Milford to the City of Goshen and the City of Warsaw. CR 1300 N in Kosciusko County is a Rural Major Collector that will continue to see increases in traffic, particularly heavy trucks in the coming years. CR 1300 N is the main thoroughfare between the Town of Milford and the Town of Syracuse. The traffic along these routes is expected to increase as these areas continue to develop. The increasing traffic flowing between CR 1300 N and SR 15 must currently divert south through downtown Milford or divert north through Milford Junction.

The purpose of this project is to build a direct connection between the existing CR 1300 N and SR 15 to relieve traffic congestion, reduce potential for accidents at railroad at-grade crossing, ensure school bus and emergency vehicle access across the railroad, and improve connectivity between communities in the North-Central Indiana region.

4. PROJECT HISTORY, PRIOR STUDIES>>

In 2015, the North Central Regional Logistic Council developed a report called “Ensuring Connection to the World” or more commonly called the Conexus Report. The report focuses on infrastructure improvements to the Indiana counties of St. Joseph, Elkhart, Marshall, Kosciusko, Fulton, Cass, and Miami.

The Conexus Report identified the extension of CR 1300 N as a top local priority project (Tier 2) in the report. The North Milford Truck Corridor (aka Project 4302) evaluated in the report is for a grade separation (new bridge) over the Norfolk Southern Railway line and Milford Main Street. The project will relieve the bottleneck of combined truck and passenger car traffic through Milford creating better traffic flow. The Report continues; the project will create economic development by allowing access to the Milford North Industrial Park.

5. EXISTING CONDITIONS>>

Land Use:

The area between Old SR 15 and SR 15 consists of privately owned cultivated fields, light industrial development, a private airstrip, and residential properties. Figure 2 is an aerial view of the proposed area for the corridor. Ground level photographs are included in Appendix “I”.



Figure 2: Aerial Image of Existing Land Use

Existing Utilities:

The proposed area for the CR 1300 N extension is lightly developed. Utility facilities are located along the existing north-south roadways. The following is a summary of the location of the existing utilities and their anticipated impact on the project. Utilities were contacted as part of this report. A utility map is included in Appendix “C”.

Utility Type	Owner	Contact	Impacted
Electric	NiSource	Doug Benda (219) 647-5311	Yes
Telephone	CenturyLink	Bill Sanner (574) 372-2750	Yes
Cable	Mediacom, LLC	Dennis Jarding (309) 743-4750	Yes
Gas	NiSource	Doug Benda (219) 647-5311	Yes
Water	Town of Milford	Steven Marquart (574) 658-4614	Yes
Fiber Optic	New Paris Telephone Inc.	Robin Loucks (574) 831-2176	Yes

Table 1: Utility Summary

The utilities involved do not appear to qualify for reimbursement for relocation work as their facilities seem to be located within the apparent right-of-way limits of the roads they run along. This assessment is preliminary and has not been confirmed with the utilities. Additional land rights research will be conducted as part of the survey and design process which will confirm the reimbursable status of each utility.

Private Airstrip:

The HR Weisser Airport, labeled in Figure 2 as “Private Airstrip”, is a private use airstrip with the FAA designation “92IN”. The landing strip is a 2000 ft long turf strip with one single engine aircraft based in the field¹. This is a low-volume airstrip.

6. EXISTING TRAFFIC FLOW AND CRASH DATA >>

Existing Traffic Patterns:

CR 1300 N is the main thoroughfare between the SR 15 and the SR 13. The current road system forces traffic to travel through multiple local roadway intersections and traverse at-grade crossings in Milford and/or Milford Junction. Figure 3 shows the traffic flow required to travel from CR 1300 N to SR 15.

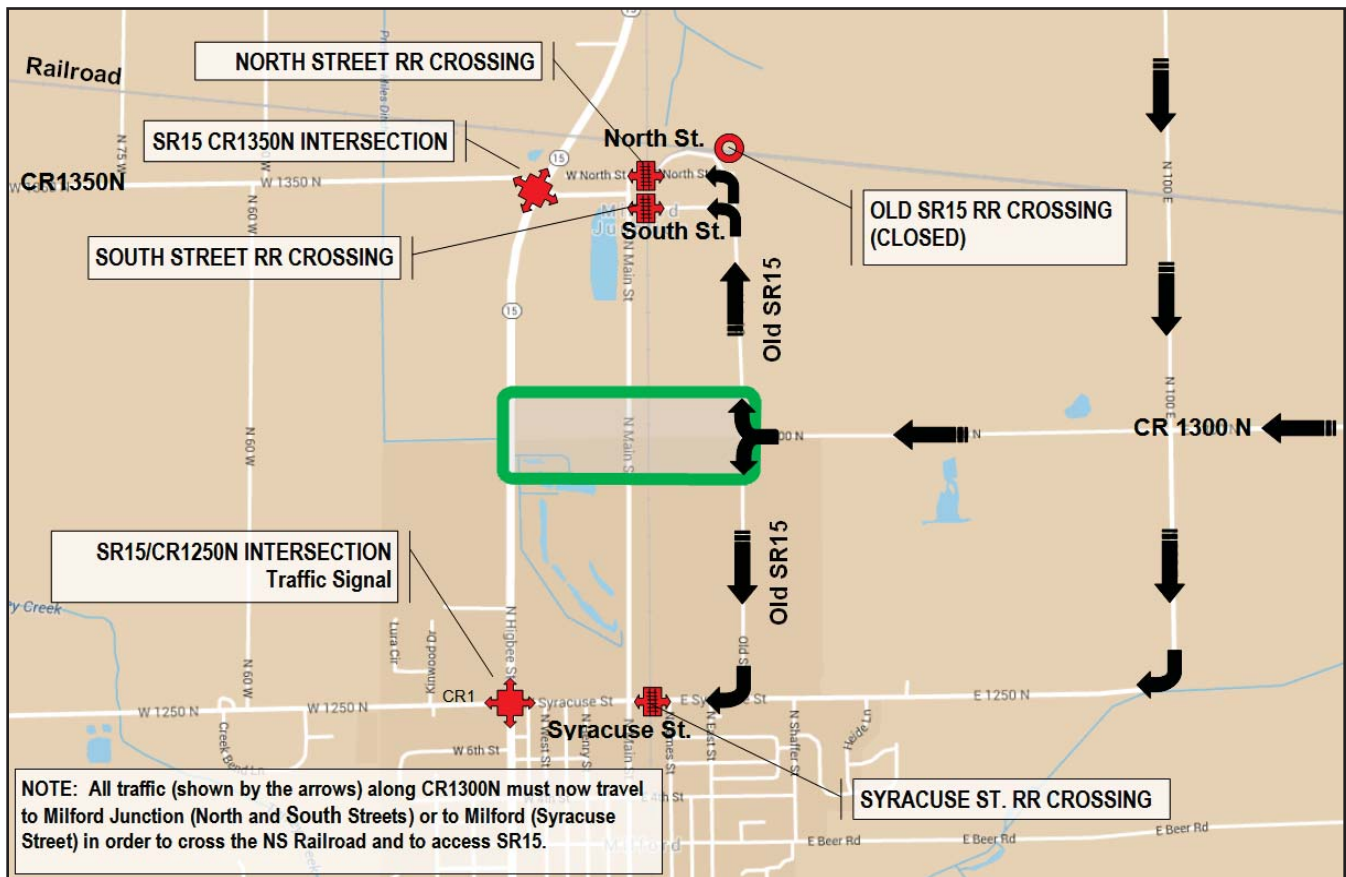


Figure 3: Existing Traffic Flow Map (Arrows show traffic flowing from East to SR 15). Map data ©2016 Google

¹ AirNav, LLC, 2016.

Crash History:

There is no crash history for the proposed CR 1300 N extension. Instead, the following crash history analyses the areas affected by the traffic flow pattern described in the “Existing Traffic Patterns” section.

Historic Crash Data

Historic crash information for the north Milford Area was obtained from records kept by Kosciusko County from January 2011 – April 2016. The crash data was filed on “Police Officer’s Standard Crash Reports” which were analyzed for the traffic flow area. A map of the crash history is included in Appendix “E”, which shows the locations and type of crash.

Location Description (along CR 1300 N)	Crash Types (January 2011 through March 2016)				
	Off Road	Left Turn	Right Angle	Misc. (Deer)	Injury Accident
500’ West of CR 100E	2	0	0	0	1
Intersection of CR 1250N and CR 100E	1	0	0	0	0
Intersection of Syracuse St. and Old SR 15	1	1	1	0	0
Total	4	1	1	0	1

Table 2: Crash History Summary

Rail Intersection Crash Prediction System

The U.S. Department of Federal Railroad Administration (FRA) uses a Web Accident Prediction System² to evaluate the crash potential of at-grade railroad-road intersections. Table 3 shows the FRA prediction for the number of crashes per year with trains at the various at-grade intersections used by traffic described in the “Existing Traffic Patterns” section.

The Accident Prediction Value is defined as “the probability that a collision between a train and a highway vehicle will occur at the crossing in a year.” For this report, the FRA Accident Prediction Values are shown as percentages.

Intersection Description	Trains Per Day	Maximum Allowable Train Speed (mph)	Accident Prediction Value (Shown as percent chance of collision per year)
North Street Railroad Crossing	10	50	2.1043 %
South Street Railroad Crossing	10	50	2.1043 %
Syracuse Street Railroad Crossing	10	50	0.8476 %

Table 3: Anticipated Railroad Crashes

The FRA report indicates that zero collisions with trains were reported to the FRA, for the three intersections discussed, during the years 2008 through 2012.

² FRA Web Accident Prediction System (WBAPS), 2012.

7. TRAFFIC DATA/ LEVEL OF SERVICE ANALYSIS >>

Projected Traffic for CR 1300 N Extension:

The CR 1300 N extension does not exist; therefore there is no existing traffic data for the road. Using existing traffic data for surrounding roads, certain assumptions can be made about how traffic patterns will be affected. It can be assumed that a portion of the traffic using CR 1300 N as it exists today will use the proposed extension. Also, the planned industrial development in the area was taken into consideration when developing traffic growth rates. Infrastructure projects are based on the expected construction year and design year traffic.

A summary of traffic design data for the proposed CR 1300 N extension is as follows:

YEAR	AADT ³	DHV ⁴	COMMERCIAL VEHICLES
2020 Construction Year	2650 vpd ⁵	8 %	10%
2040 Design Year	4000 vpd		

Table 4: Traffic Data Summary (CR 1300 N Extension)

A map of the AADT analysis for the project area, including the effect on the routes described in the “Existing Traffic Patterns” section is included in Appendix “D”.

Level of Service (LOS) Analysis:

A LOS analysis was performed for the anticipated construction year (2020) as well as the design year (2040) for CR 1300 N. Levels of Service are designated A through F and based on the flow of the Peak Volume of traffic. Level A represents unimpeded flow with no speed reduction. Level F represents severely impeded flow, packed traffic conditions.

Table 5 summarizes the level of service for the CR 1300 N extension during the PM peak traffic flow for the design year.

Year	Free Flow Condition	PM Peak		Comments
	Free-flow speed (mph)	Average Speed (mph)	Level of service, LOS	
2040	51.8	45.2	C	LOS “C” defined as stable flow, at or near free flow

Table 5: Level of Service Summary Table (CR 1300 N Extension)

Table 6 summarizes the level of service for the CR 1300 N intersection with SR 15 during the PM peak traffic flow for the design year. The proposed intersection is stop controlled for CR 1300 N. The proposed intersection is not stop controlled for SR 15. The approach delay is defined as the time spent on CR 1300 N in a queue to turn onto SR 15.

³ Annual average daily traffic

⁴ Design Hourly Volume

⁵ Vehicles Per Day

Year	PM Peak		Comments
	Approach Delay (s)	Level of service, LOS	
2040	21	C	LOS "C" defined as occasionally backups may develop, traffic flow still stable and acceptable

Table 6: Level of Service Summary Table (CR 1300 N and SR 15 Intersection)

The Level of Service computations are located in Appendix "D".

8. BASIC DESIGN ELEMENTS >>

The following basic design elements are used in conjunction with the Indiana Design Manual (IDM) to develop the proposed roadway geometry. Main Street is included because several alternates evaluate a realignment of the road. The Geometric Design Criteria Tables and Level 1 Checklists for both roads are included in Appendix "B".

Basic Design Elements:

CR 1300 N Extension	
Posted Speed Limit	45 mph
Project Design Criteria	4R New Construction
Functional Classification	Major Local Collector
Rural/Urban	Rural
Roadway Cross Section	Two - 12' travel lanes 4' shoulders

Table 7: CR 1300 N Extension Basic Design Elements

Main Street	
Posted Speed Limit	35 mph
Project Design Criteria	4R
Functional Classification	Local Road
Rural/Urban	Rural
Roadway Cross Section	Two - 10' travel lanes 2' shoulders

Table 8: Main Street Basic Design Elements

CR 1300 N Roadway Geometry:

The proposed geometry of the CR 1300 N extension is summarized in Table 9. The CR 1300 N geometry is compared to the minimum required “Level 1” geometry criteria cited in the Indiana Design Manual for new construction projects.

Criteria	IDM 4R Minimum	CR 1300 N Extension	Note
Number of Lanes	2 Lanes	2 Lanes	
Lane Widths	12ft	12 ft	
Shoulder Widths	8ft	4ft	Deficient: Level 1 Exception Required*
Bridge Clear-Roadway Width	40ft	32 ft	Deficient: Level 1 Exception Required*
Horizontal Curve, Min. Radius	587 ft	1,650 ft	
Stopping Sight Distances at Horizontal Curves	360 ft	360 ft	
Stopping Sight Distances at Vertical Curves	360 ft	360 ft	
Superelevation Rate	8% table	5%	
Structural Capacity Bridge	HL-93	HL-93	
Bridge-Railing Safety Performance	TL-2	TL-4 (FC)	

Table 9: CR 1300 N Extension Geometric Data Check

* Note that the shoulder widths do not meet IDM 4R design criteria. For this Engineer’s Report, it was assumed that a design exception would be feasible and prudent to pursue in order to reduce the total cost of the project by reducing the overall width of the new corridor. The 4 ft shoulder widths shown meet IDM 3R design criteria⁶ and more closely match the existing CR 1300 N section (east of Old SR 15).

9. PROJECT ALTERNATES>>

The following section describes the roadway alternates that were developed for the site. All alternates provide a direct connection between CR 1300 N and SR 15 and meet the stated project purpose and need, with exception to the “do nothing” alternate. All alternates satisfy railroad requirements. Each alternate examines the pros, cons, and costs associated with combinations of changes to the following factors:

1. Bridge configuration over the railroad and Main Street: comparison of using multiple bridges versus using a single bridge to span Main Street and the Railroad.
2. Alignment of Main Street: comparison of a realignment of Main Street, dead-ending Main Street in Culs-de-sac, and bringing Main Street to grade with CR 1300 N to create a new intersection.

The following tables and accompanying written descriptions summarize and compare the alternates.

⁶ Indiana Design Manual, 2013. Figure 55-3B

Project Alternates Summary:

Alternate	Description	Right-of-Way Required (Acres)	Estimated Total Project Costs (see Table 11: Cost Breakdown)	Percent above Lowest Cost Alternate
1	SEPARATE BRIDGES OVER MAIN ST AND RAILROAD; NO MAIN ST REALIGNMENT	9.8	\$ 6,363,000	17.8 %
2	SINGLE BRIDGE OVER MAIN ST. AND RAILROAD; MAIN ST. REALIGNMENT	11.0	\$ 5,759,000	7.8 %
3A	BRIDGE OVER RAILROAD; MAIN ST. INTERSECTION & REALIGNMENT	**	Dismissed	N/A
3B	BRIDGE OVER RAILROAD; ELEVATED MAIN ST. INTERSECTION	**	Dismissed	N/A
4	BRIDGE OVER RAILROAD; DEAD-END MAIN ST.	10.3	\$ 5,324,000	-
5	DO NOTHING	0	Dismissed	N/A

Table 10: Alternates Summary

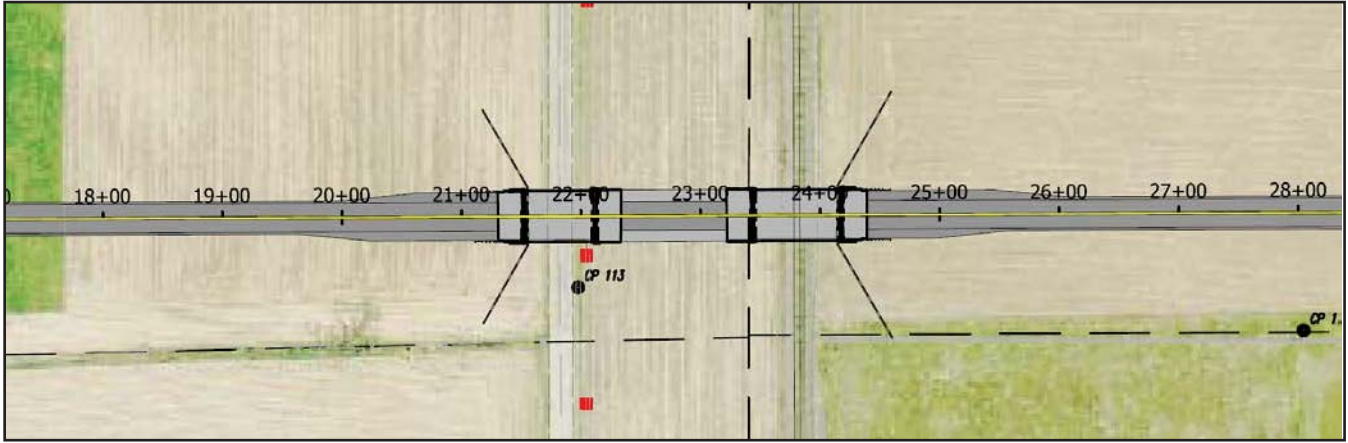
** Required right-of-way will encroach onto residential properties, which will incur significant damages and will likely require a total take of the properties. Areas not calculated due to Alternates 3A and 3B being dismissed. For additional information, see the written descriptions of Alternates 3A and 3B.

Project Alternates Cost Breakdown:

Alternate	Estimated Construction Cost (2016)	Construction Inspection (15% of Construction)	Professional Engineering (20% of Construction)	Contingency (25% of Construction)	Railroad Cost	Right-of-Way Land & R/W Engineering Cost (\$30K / Ac)	Inflation (2020, 4 Years at 2%/year)	Estimated Total Project Cost
1	\$ 3,262,000	\$ 490,000	\$ 652,000	\$ 815,000	\$ 350,000	\$ 294,000	\$ 500,000	\$ 6,363,000
2	\$ 2,890,000	\$ 434,000	\$ 578,000	\$ 722,000	\$ 350,000	\$ 330,000	\$ 455,000	\$ 5,759,000
4	\$ 2,653,000	\$ 398,000	\$ 530,000	\$ 663,000	\$ 350,000	\$309,000	\$ 421,000	\$ 5,324,000

Table 11: Cost Breakdown

ALTERNATE 1: BRIDGES OVER MAIN ST AND RAILROAD; NO MAIN ST. REALIGNMENT



A Plan and profile sheet of Alternate 1 is included in Appendix “F”.

Characteristics:

- The alignment of Main St. is unchanged.
- Two separate bridges carry CR 1300 N over Main St. and the railroad.
- A Mechanically Stabilized Earth (MSE) wall island supports the raised roadway between the Main St. Bridge and the Railroad Bridge.
- Requires the acquisition of 9.8 acres of land.

Pros

- Provides an uninterrupted flow of traffic on CR 1300 N and Main St. Eliminating the Main St. intersection eliminates the hazards associated with an intersection.
- Does not require the realignment of Main St. An “S” bend is not introduced to an otherwise straight alignment.
- MSE wall island reduces the total square footage of bridge deck compared to a single structure spanning Main St. and the Railroad. This reduces the long term maintenance cost associated with the crossing.

Cons

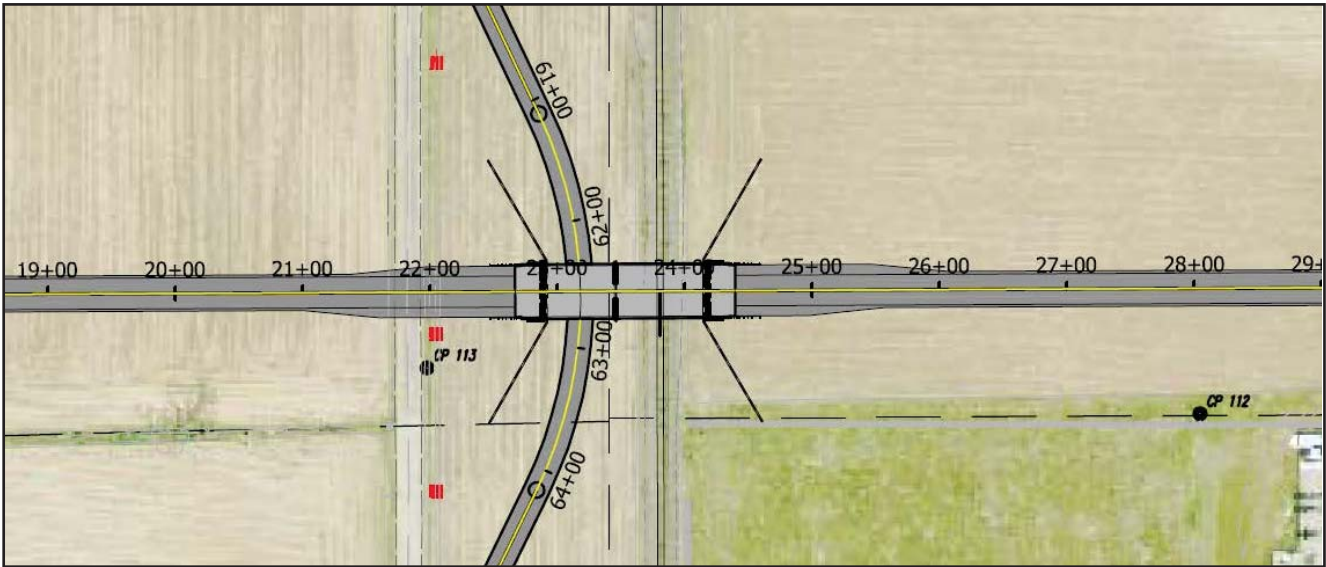
- Most expensive alternate after dismissal of Alternates 3A and 3B.
- Does not provide direct access between CR 1300 N and Main St.

Cost Summary

Detailed construction cost estimate is included in Appendix “G”.

Estimated Construction Cost (2016)	Construction Inspection (15% of Construction)	Professional Engineering (20% of Construction)	Contingency (25% of Construction)	Railroad Cost	Right-of-Way Land & R/W Engineering Cost (\$30 K / Ac)	Inflation (2020, 4 Years at 2%/year)	Estimated Total Project Cost
\$ 3,262,000	\$ 490,000	\$ 652,000	\$ 815,000	\$ 350,000	\$ 294,000	\$ 500,000	\$ 6,363,000

ALTERNATE 2: SINGLE BRIDGE OVER MAIN ST. AND RAILROAD; MAIN ST. REALIGNMENT



A Plan and profile sheet of Alternate 2 is included in Appendix “F”.

Characteristics

- Horizontal realignment of Main St. to eliminate MSE wall Island described in Alternate 1. One bridge crossing will span both Main St. and the railroad.
- Requires the acquisition of 11 acres of land.

Pros

- Less expensive than Alternate 1 with essentially the same functionality.
- Reduces long-term maintenance cost associated with bridges and MSE walls. While the two-span bridge is similar in square footage to the bridges of Alternate 1, the total costs of inspection will be less.
- Provides an uninterrupted flow of traffic on CR 1300 N and Main St. Eliminating the Main St. intersection eliminates the hazards associated with an intersection.

Cons

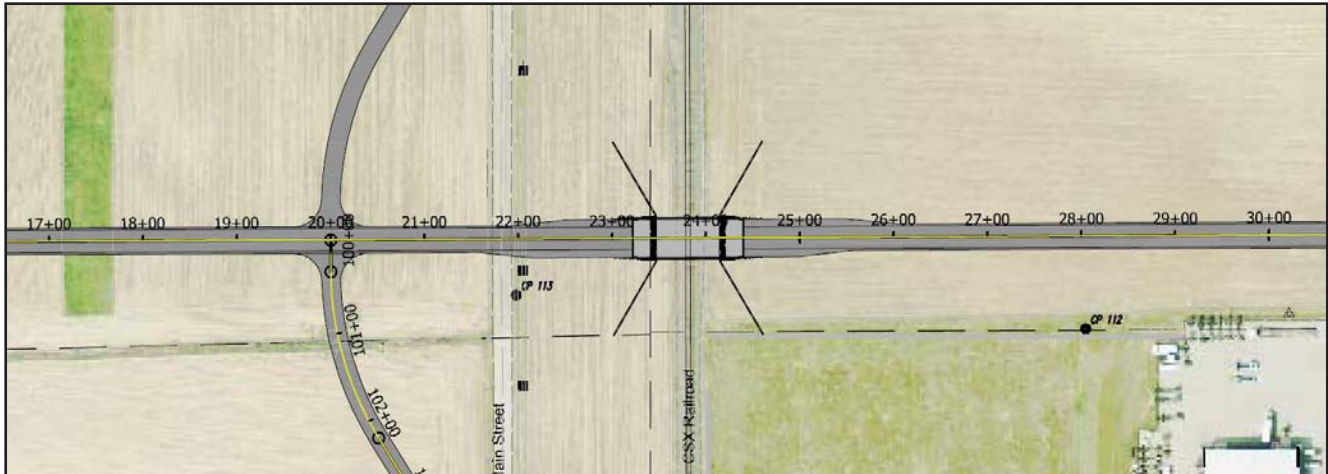
- Does not provide direct access between CR 1300 N and Main St.
- Introduces two “S” curve alignments on Main St where there previously were none.
- Requires the relocation of additional utilities along Main St.
- Permanently impacts cultivated fields which were previously useable.

Cost Summary

Detailed construction cost estimate is included in Appendix “G”.

Estimated Construction Cost (2016)	Construction Inspection (15% of Construction)	Professional Engineering (20% of Construction)	Contingency (25% of Construction)	Railroad Cost	Right-of-Way Land & R/W Engineering Cost (\$30 K / Ac)	Inflation (2020, 4 Years at 2%/year)	Estimated Total Project Cost
\$ 2,890,000	\$ 434,000	\$ 578,000	\$ 722,000	\$ 350,000	\$ 330,000	\$ 455,000	\$ 5,759,000

ALTERNATE 3A: BRIDGE OVER RAILROAD; MAIN ST. INTERSECTION & REALIGNMENT



A Plan and profile sheet of Alternate 3A is included in Appendix “F”.

Characteristics

- A single bridge carries CR 1300 N over the railroad.
- Horizontal realignment of Main St. to intersect with CR 1300 N extension to the west of the bridge.

Pros

- Reduced user confusion, improved navigation, and connectivity in the north Milford area.
- Reduces long-term maintenance cost associated with bridges and MSE walls. The proposed single-span bridge will reduce inspection and maintenance costs when compared to Alternates 1 and 2.

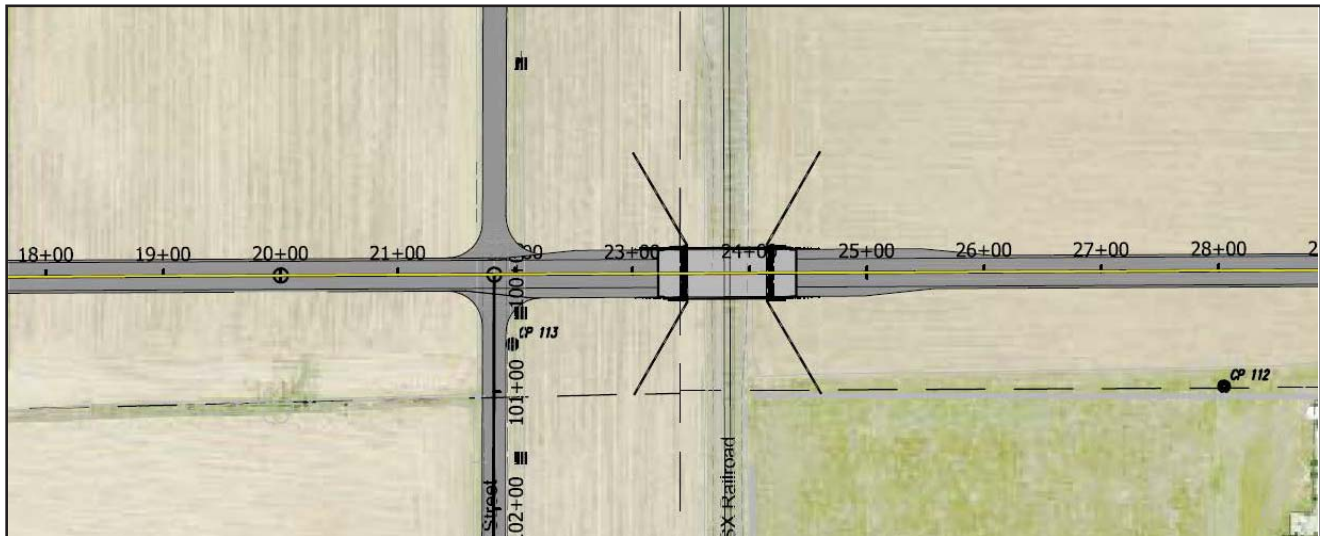
Cons

- The horizontal and vertical realignment of Main St. encroaches on private, residential property. Two houses would likely need to be taken as part of right-of-way acquisition.
- Requires drivers on Main St. to stop at the intersection with CR 1300 N.
- The at-grade intersection creates the possibility of collisions between drivers on CR 1300 N and Main St.
- Introduces two “S” curve alignments on Main St where there previously were none.
- Permanently impacts cultivated fields which were previously useable.

Recommendation:

Alternate 3A has been eliminated due to the impacts to the residential properties to the south of CR 1300 N. Main St. at this location has a design AADT in 2040 of 200 vehicles, a low-volume road. The added benefits of providing an intersection between Main St. and CR 1300 N in this location are not enough to justify the damages to residential properties.

ALTERNATE 3B: BRIDGE OVER RAILROAD; ELEVATED MAIN ST. INTERSECTION



A Plan and profile sheet of Alternate 3B is included in Appendix “F”.

Characteristics

- A single bridge carries CR 1300 N over the railroad.
- Vertical realignment of Main St. to intersect with CR 1300 N extension to the west of the bridge. Main St. would be elevated significantly to meet CR 1300 N at grade.

Pros

- Reduced user confusion, improved navigation, and connectivity in the north Milford area.
- Reduces long-term maintenance cost associated with bridges and MSE walls. The proposed single-span bridge will reduce inspection and maintenance costs when compared to Alternates 1 and 2.
- Eliminates the “S” curve alignments introduced by Alternates 2 & 3.

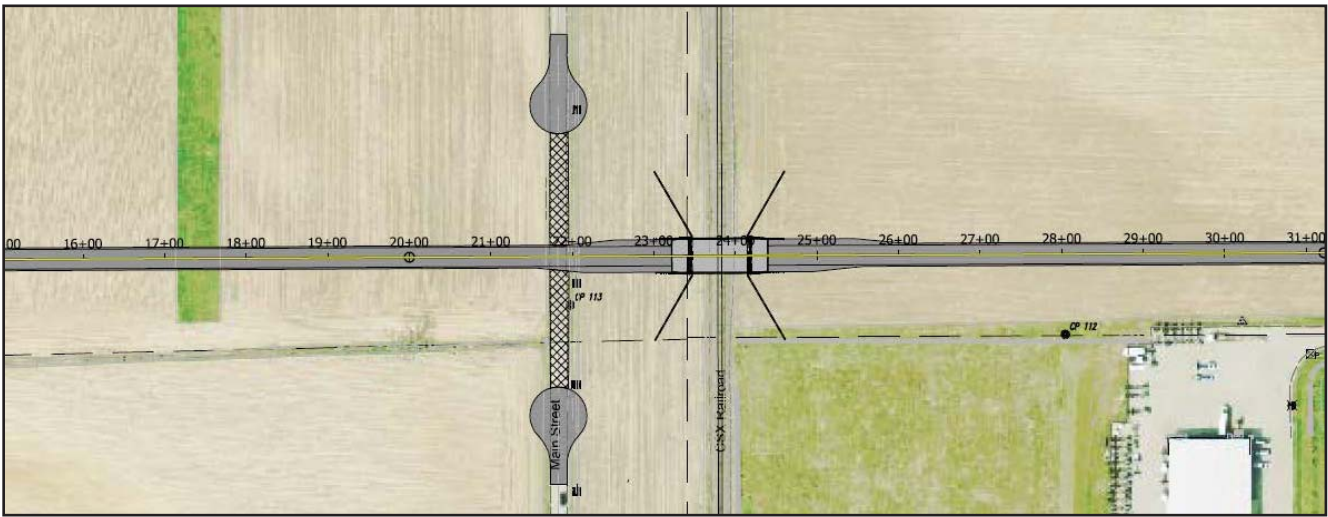
Cons

- The vertical realignment of Main St. encroaches on private, residential property. The grade raise of Main St would be significant and incur damages to the residences. Two houses would likely need to be taken as part of right-of-way acquisition.
- Requires the relocation of additional utilities along Main St.
- The at-grade intersection creates the possibility of collisions between drivers on CR 1300 N and Main St.
- Introduces additional steep vertical grades on Main St., a low volume road. Low-volume roads are generally not as well maintained as well traveled roadways. During severe weather events, such as snowfall or ice, a steep low volume road could become hazardous and slippery.
- Permanently impacts cultivated fields which were previously useable.

Recommendation:

Alternate 3B has been eliminated due to the impacts to the residential properties to the south of CR 1300 N. The added benefits of providing an intersection between Main St. and CR 1300 N in this location are not enough to justify the damages to residential properties. Additionally, the steep grades introduce severe weather hazards.

ALTERNATE 4: BRIDGE OVER RAILROAD; DEAD-END MAIN ST.



A Plan and profile sheet of Alternate 4 is included in Appendix “F”.

Characteristics

- Main Street will be terminated to the north and south of CR 1300 N in culs-de-sac.
- A single bridge carries CR 1300 N over the railroad.
- Requires the acquisition of 10.3 acres of land.

Pros

- Least expensive alternate; both in initial construction, long-term maintenance, and inspection cost.
- Reduces long-term maintenance cost associated with bridges and MSE walls. The proposed single-span bridge will reduce inspection and maintenance costs when compared to Alternates 1 and 2.
- Provides an uninterrupted flow of traffic on CR 1300 N. Eliminating the Main St. intersection eliminates the hazards associated with an intersection.
- Lowest additional right-of-way take while still meeting stated project purpose and need.

Cons

- Eliminates the through-functionality of Main St. The road does not carry much traffic but these users will be forced to use an alternate route. Increases user confusion and reduces ease of navigation.
- Requires the relocation of additional utilities along Main St.
- Permanently impacts cultivated fields which were previously useable.

Cost Summary

Detailed construction cost estimate is included in Appendix “G”.

Estimated Construction Cost (2016)	Construction Inspection (15% of Construction)	Professional Engineering (20% of Construction)	Contingency (25% of Construction)	Railroad Cost	Right-of-Way Land & R/W Engineering Cost (\$30 K / Ac)	Inflation (2020, 4 Years at 2%/year)	Estimated Total Project Cost
\$ 2,653,000	\$ 398,000	\$ 530,000	\$ 663,000	\$ 350,000	\$309,000	\$ 421,000	\$ 5,324,000

ALTERNATE 5: DO NOTHING

This alternate allows the current roadways to remain in place without any efforts to alleviate traffic in the area. This alternate does not meet the stated project purpose and need.

10. RECOMMENDED ALTERNATE>>

To best meet the stated project purpose and need, after consideration of cost and final product quality, we recommend **Alternate 2**. This alternate proposes that the raised CR 1300 N extension cross both the railroad and Main St. with a single bridge structure. This alternate provides a CR 1300 N extension and preserves the functionality of Main St. with minimal (+7.8%) cost increase when compared to the least expensive option (Alternate 4, which eliminates the through function of Main St.).

The total estimate project cost of Alternate 2 is \$ 5,759,000 in 2020.

11. ADDITIONAL CONSIDERATIONS>>

Topographic Survey:

A topographic survey of the project area was not performed for this study. Topographic data used in this study was obtained from IndianaMAP LiDAR data. The alternates in this report were produced using the best available data.

For the design and construction of a chosen alternate, a Land Route Control Survey would need to be performed. The approximate cost of the topographic survey is included in the professional engineering fees listed with each alternate.

Vehicular Traffic Maintenance:

Because this project proposes a new roadway corridor, traffic maintenance concerns are minimal for each option when compared to construction along an existing roadway of similar magnitude. However, the construction of each alternate (with exception to the “do nothing” alternate) does require tie-in and intersection work with the existing roadways.

SR 15

Construction of the SR 15 intersection will not significantly disrupt existing traffic patterns. Temporary traffic disruptions can be expected during construction; a main construction entrance will be located on SR 15 for the ingress and egress of construction equipment. Some tie-in work and shoulder work will be performed for the new intersection.

Old SR 15

Each alternate proposes a shift of the CR 1300 N corridor to the north of the existing CR 1300 N (east of Old SR 15). A completely new intersection is proposed. Temporary traffic disruptions can be expected during construction; a main construction entrance will be located on Old SR 15.

Main St.

Due to the low volume of traffic on Main St. Closure of the road with a detour (permanent or temporary, depending on the alternate selected) is the recommended maintenance of traffic scheme.

Railroad Coordination:

Construction within, over, or near a railroad right-of-way has the potential to adversely affect the railroad traffic. Extensive coordination with Norfolk Southern Railway, throughout the design and construction process will be required, regardless of which alternate is selected.

The railroad costs shown in the estimated cost for each alternate include the cost of flagging, obtaining railroad permits, monitoring of tracks, and review of the design by the railroad engineers.

Right-of-Way:

Table 12 shows the approximate proposed right-of-way required and associated cost for each alternate. As discussed further in the written descriptions of each alternate, the required right-of-way take for Alternates 3A and 3B would incur significant damages and have been dismissed. These areas are not included in the table.

Alternate	# Parcels Impacted	Right-of-Way (Acres)	Right-of-Way Land & R/W Engineering Cost (\$30 K / Ac)*
1	4	9.8	\$ 294,000
2	4	11.0	\$ 330,000
3A	-	-	N/A
3B	-	-	N/A
4	4	10.3	\$ 309,000

Table 12: Right-of-Way Summary

Right-of-way take areas for the alternates considered are all zoned for Agricultural use. For estimating purposes, the cost of right-of-way acquisition was assumed to be approximately \$30k/acre. This cost per acre will be refined during the design process.

Drainage:

The existing project site is largely cultivated fields, and likely drains with a combination of sheet flow and field tile. The Preston Miles Ditch collects the flow from the project area and conveys it to Turkey Creek and eventually the Elkhart River.

The exact drainage scheme for the proposed project will be determined during the design phase. The drainage will likely consist of a system of swales and possibly a detention pond to offset the increased impervious pavement area’s effect on local hydrology.

The railroad will likely not allow for modifications to drainage patterns within the railroad right-of-way. This restriction will likely split the project drainage into two parts – east and west of the railroad.

Pavement Treatment:

For estimating purposes, the pavement section of all roadways is assumed to consist of 5” Hot-Mix Asphalt (HMA) on 5” crushed aggregate, on a subgrade treatment. A final pavement design will be performed during the design stage after receipt of geotechnical information.

Environmental Considerations

The US Fish and Wildlife Services National Wetland Inventory does not show wetlands within the project area. However, a preliminary reconnaissance of the project site has indicated that there is likely an adjacent wetland near the west end of the project, west of SR 15. The wetland size is estimated to be 1.20 acres. Also, a 1.35-acre pond is located to the south of the project area. The National Wetland Inventory Map is located in Appendix “H”.

The Preston Miles Ditch is located in the south-western corner of the project site. This ditch may be considered a “Waters of the United States” by the regulatory agencies and therefore subject to regulation.

The alternates provided avoid these streams and wetlands, based on the best available data available. However, a wetlands determination will be required as part of the site environmental process required for federal aid projects.

A Rule 5 permit for sediment pollution control will be required for this project. The construction site will be substantially larger than the one acre threshold for each alternate. A Soil and Water Pollution prevention plan will be required by the Indiana Department of Environmental Management (IDEM) and will need to be reviewed and filed with the Kosciusko County Soil and Water Conservation District (SWCD). No exceptional measures are anticipated to be required for this project.

Aviation and Tall Structures Permitting:

Depending on how the nearby airstrip conflict is resolved, coordination with the Federal Aviation Administration (FAA) may be required. If the airstrip remains in operation, tall-structures permits will be required for all construction equipment, permanent features, and cranes.

Permits:

The project will require permits from several regulatory agencies. Table 13 summarizes the anticipated permits for this project:

Agency	Permit Type	Timeframe for Permitting Agency Reviews
FAA	FAA Permit	2-3 months
IDEM (Kosciusko County SWCD)	Rule 5	2-3 months

Table 13: Permitting Summary

12. RELATED PROJECTS, CONSISTENCY >>

Kosciusko County, INDOT, the Town of Milford, and Milford Junction do not have construction projects scheduled between 2019 and 2020 that will occur within 2 miles of the project.

A \$30-million dollar TruHorizons grain elevator and agronomy hub is under construction in northeast Milford, Indiana. The facility will be able to store 4.3 million bushels of grain and have direct access to the CSX and NS railroads. Construction is anticipated to be complete in fall 2016 and will not conflict with the construction of the CR 1300 N extension.

13. COORDINATION AND CONTACT INFORMATION >>

Numerous municipalities and organizations are affected by the recommendations of this report. Additional coordination with interested parties should be pursued throughout the project design and construction process. The contacts listed in Table 14 represent a portion of these interested parties.

Organization	Contact Name	Phone Number	Email
Kosciusko County	Ron Robinson Kosciusko County Administrator	(574) 372-2475	rrobinson@kcgov.com
Kosciusko County	Scott Tilden Highway Supervisor	(574) 372-2356	stilden@kcgov.com
Milford Indiana Town Council & Redevelopment Commission	Doug Ruch Town Council & Redevelopment Commission Member	(574) 658-4882	ddruch@embarkmail.com
Milford Redevelopment Commission	Dan Brown President	(574) 658-4166	dfbrown@phend-brown.com
INDOT – Fort Wayne District	David Armstrong Local Public Agency (LPA) and Grant Administration	(260) 969-8277	darmstrong@indot.IN.gov
Milford Indiana Fire Department (EMS)	Doug Ruch Firefighter	(574) 658-4882	ddruch@embarkmail.com
Wawasee Community School Corporation	Dr. Thomas Edington Superintendent	(574) 457-3188	tedington@wawasee.k12.in.us
TruHorizons	Jim Wolf	(574) 658-3327	jwolf@truhorizons.com
Polywood	Doug Rassi	(574) 457-3284	corp@polywoodinc.com

Table 14: Contact Information

14. LETTERS OF SUPPORT >>

Letters of support for the construction of a raised CR 1300 N extension and railroad crossing are included in Appendix “J”. These letters were submitted prior to the creation of this report. The letters **do not** indicate concurrence with this report or this report’s recommendations.

15. CONCURRENCE>>

Jason Springer

INDOT

DATE: 02/25/2021

16. SOURCES>>

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