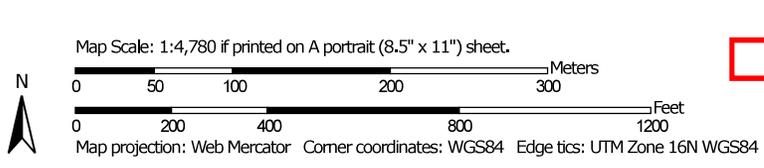


Hydric Rating by Map Unit—Elkhart County, Indiana
(SR 15 at CR 18, Des. 1800039)



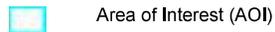
Soil Map may not be valid at this scale.



Investigated Area

MAP LEGEND

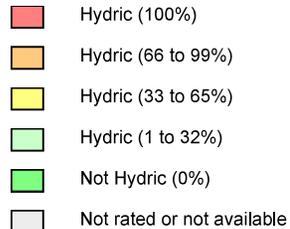
Area of Interest (AOI)



Area of Interest (AOI)

Soils

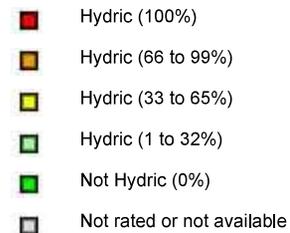
Soil Rating Polygons



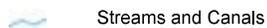
Soil Rating Lines



Soil Rating Points



Water Features



Streams and Canals

Transportation



Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Elkhart County, Indiana

Survey Area Data: Version 23, Jun 4, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

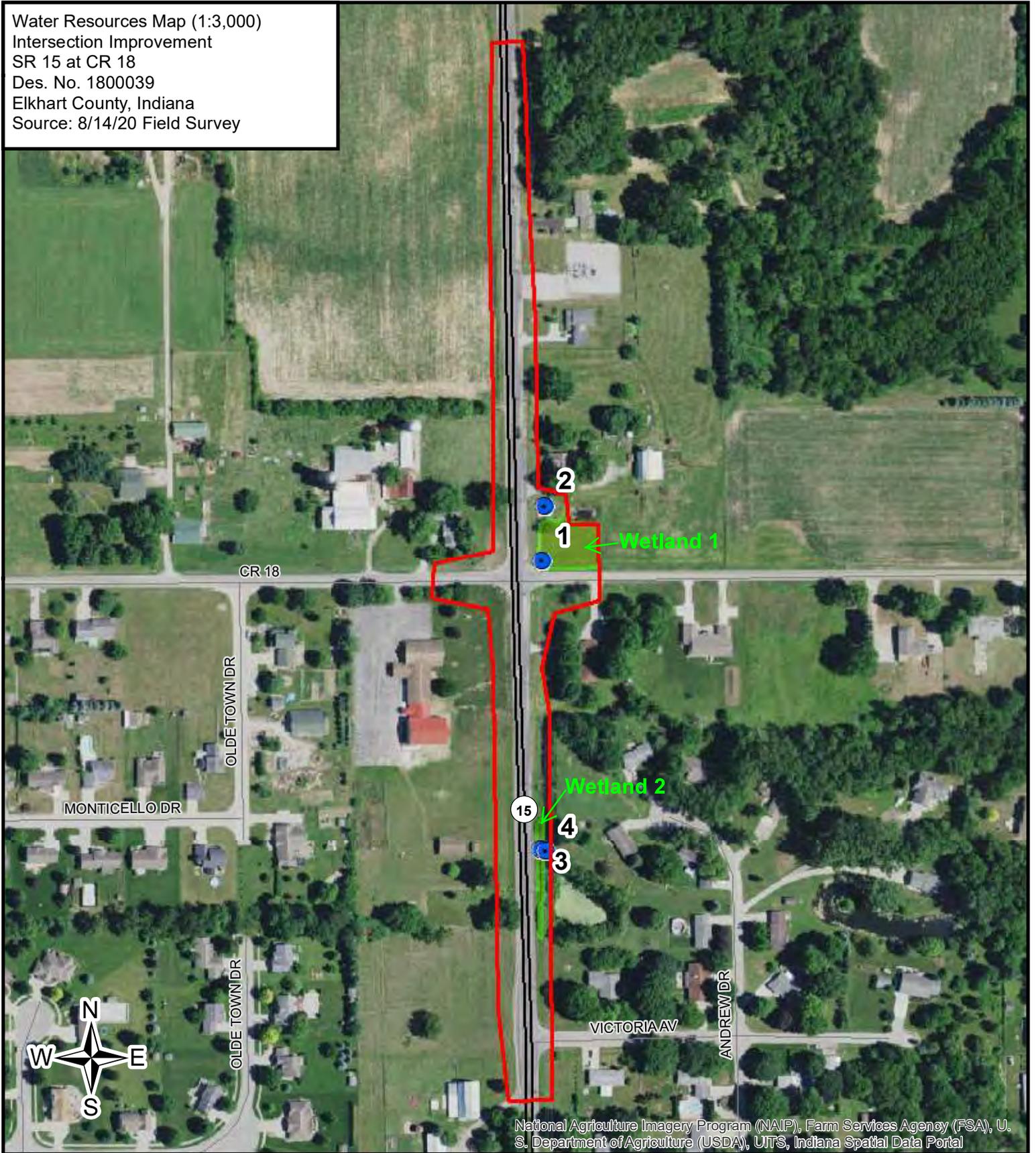
Date(s) aerial images were photographed: Jun 3, 2015—Jul 4, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BtxA	Bristol loamy sand, 0 to 2 percent slopes	0	17.7	32.8%
BtxB	Bristol loamy sand, 2 to 5 percent slopes	0	10.9	20.1%
BtxC	Bristol loamy sand, 5 to 10 percent slopes	0	0.7	1.2%
BtxD2	Bristol loamy sand, 10 to 18 percent slopes, eroded	0	4.2	7.8%
BufA	Bronson sandy loam, 0 to 1 percent slopes	6	6.7	12.4%
CnbC	Coloma sand, 5 to 10 percent slopes	0	1.7	3.1%
GczA	Gilford sandy loam, 0 to 2 percent slopes, gravelly subsoil	95	2.1	3.8%
ReyA	Rensselaer loam, 0 to 1 percent slopes	88	6.1	11.3%
TxuA	Tyner loamy sand, 0 to 1 percent slopes	0	0.1	0.2%
WobB	Williamstown-Crosier complex, 1 to 5 percent slopes	0	3.9	7.2%
Totals for Area of Interest			54.0	100.0%

Water Resources Map (1:3,000)
Intersection Improvement
SR 15 at CR 18
Des. No. 1800039
Elkhart County, Indiana
Source: 8/14/20 Field Survey



National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U. S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal

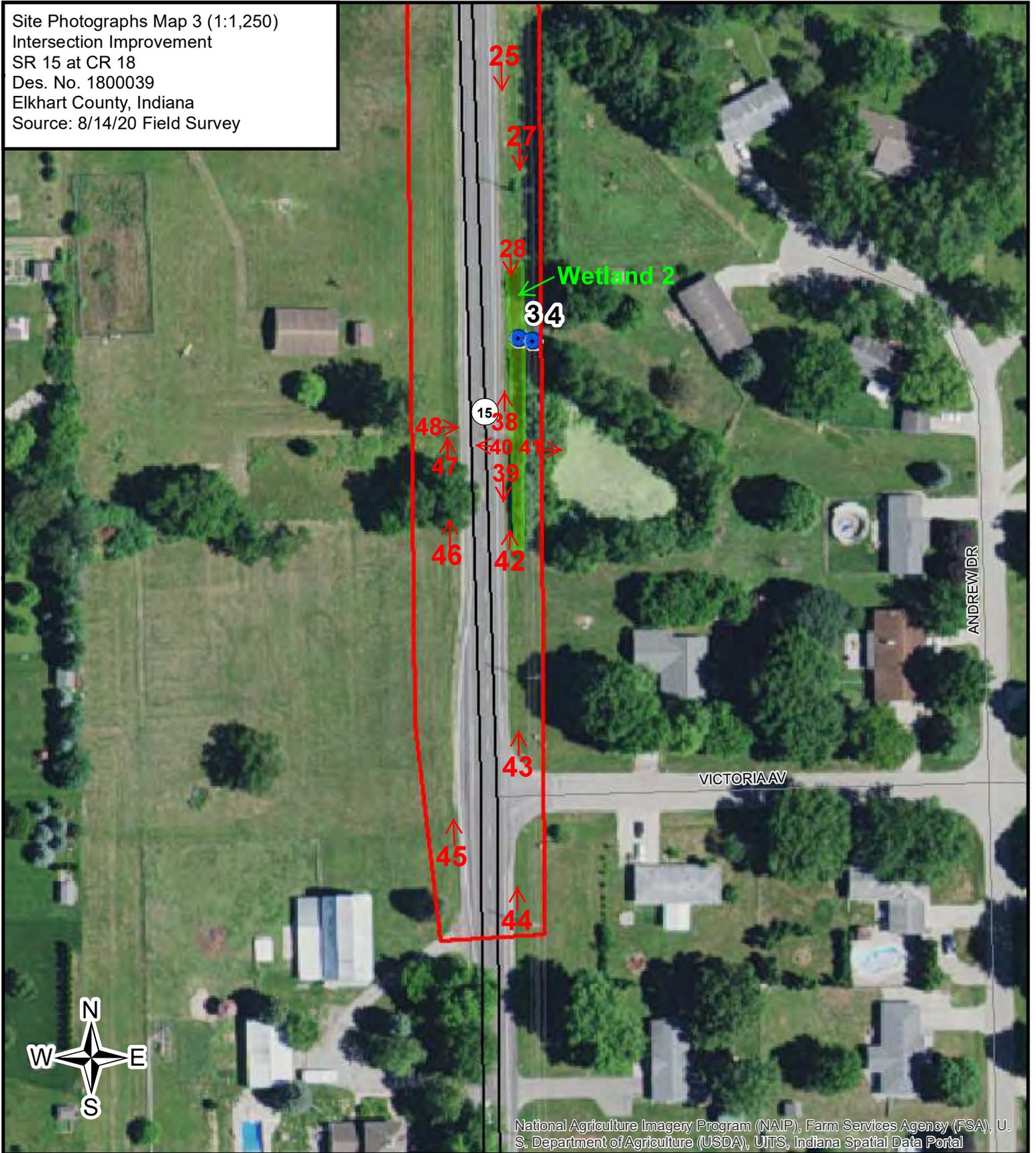
0 175 350
Feet

- Investigated Area
- Wetland
- Sample Point



10/1/2020

Site Photographs Map 3 (1:1,250)
 Intersection Improvement
 SR 15 at CR 18
 Des. No. 1800039
 Elkhart County, Indiana
 Source: 8/14/20 Field Survey

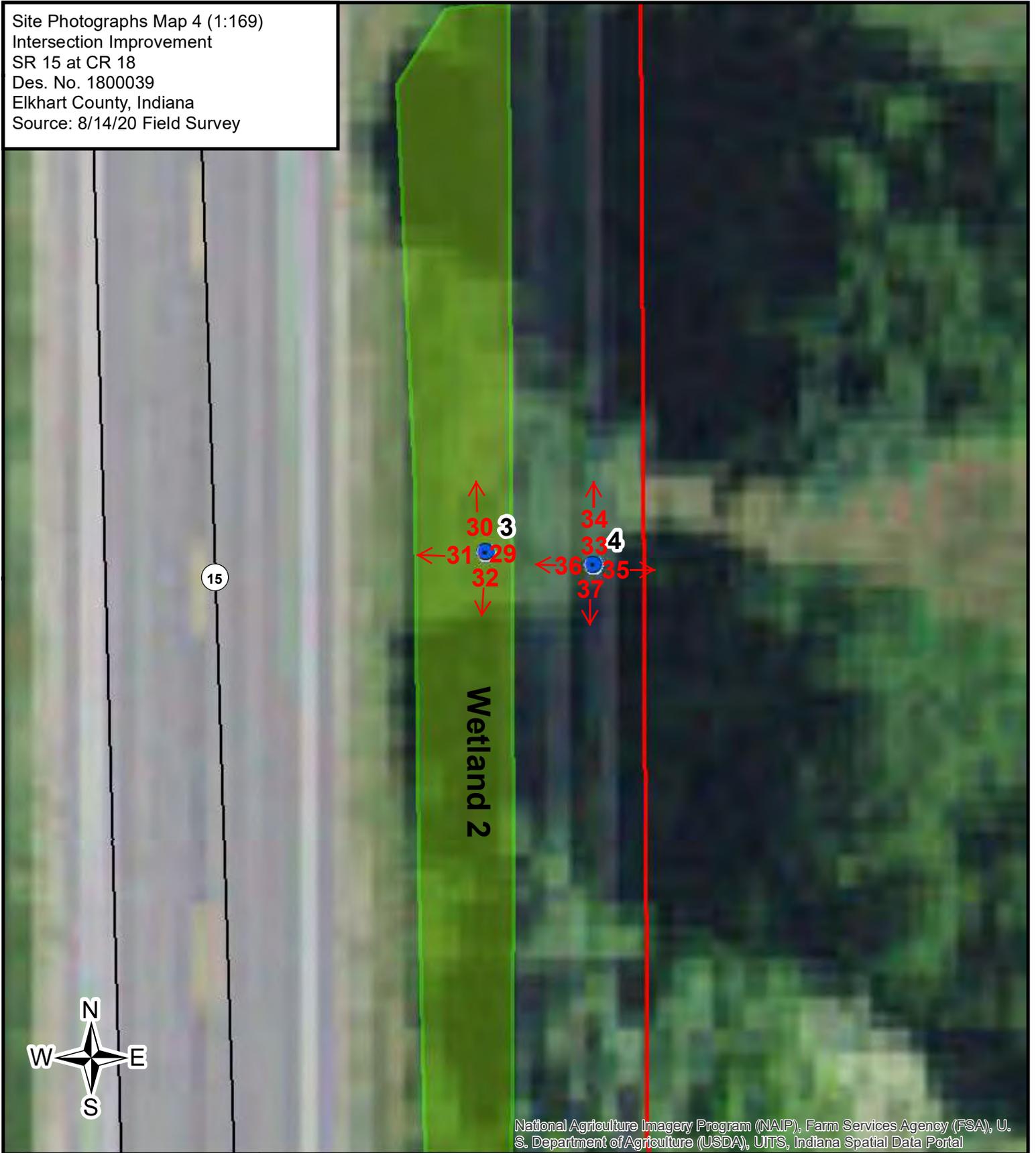


- Investigated Area
- Wetland
- Sample Point
- # Photograph Locations

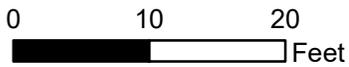


10/1/2020

Site Photographs Map 4 (1:169)
 Intersection Improvement
 SR 15 at CR 18
 Des. No. 1800039
 Elkhart County, Indiana
 Source: 8/14/20 Field Survey



National Agriculture Imagery Program (NAIP), Farm Services Agency (FSA), U.S. Department of Agriculture (USDA), UITS, Indiana Spatial Data Portal



- Investigated Area
- Wetland
- Sample Point
- # Photograph Locations



10/1/2020

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 15 at CR 18, Des. 1800039 City/County: Elkhart Sampling Date: 8/14/20
 Applicant/Owner: Strand Associates, Inc. State: IN Sampling Point: 1
 Investigator(s): K. McLane Section, Township, Range: SEC 15, TWP 37 N, RNG 6 E
 Landform (hillslope, terrace, etc.): Pasture/Depression Local relief (concave, convex, none): Concave
 Slope (%): 0-2 Lat: 41.652773° Long: -85.821001° Datum: WGS 84
 Soil Map Unit Name: ReyA-Rensselaer loam, 0-1% slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Point was taken within a fallow pasture, within Wetland 1.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet:
2. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
3. _____	_____	_____	_____	OBL species _____ x 1 = _____
4. _____	_____	_____	_____	FACW species _____ x 2 = _____
5. _____	_____	_____	_____	FAC species _____ x 3 = _____
_____ = Total Cover				FACU species _____ x 4 = _____
Herb Stratum (Plot size: <u>5 ft</u>)				
1. <u>Phalaris arundinacea</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>	UPL species _____ x 5 = _____
2. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
3. _____	_____	_____	_____	Prevalence Index = B/A = _____
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
6. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
7. _____	_____	_____	_____	<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
8. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
10. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Sample point is dominated by the invasive reed canary grass.				

SOIL

Sampling Point: 1

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		
0-3	10YR 3/2	100					SCL	
3-10	10YR 3/2	94	2.5YR 4/6	6	C	PL	SL	
10-16	10YR 4/2	90	7.5YR 5/8	10	C	M	SL	Depleted matrix

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

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:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
 Point was taken within a low-lying depression. Saturation is visible on 2019 Google imagery and NWI map aerial imagery from the last 5 years.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 15 at CR 18, Des. 1800039 City/County: Elkhart Sampling Date: 8/14/20
 Applicant/Owner: Strand Associates, Inc. State: IN Sampling Point: 2
 Investigator(s): K. McLane Section, Township, Range: SEC 15, TWP 37 N, RNG 6 E
 Landform (hillslope, terrace, etc.): Terrace/Pasture Local relief (concave, convex, none): Concave
 Slope (%): 0-2 Lat: 41.653067° Long: -85.820978° Datum: WGS 84
 Soil Map Unit Name: ReyA-Rensselaer loam, 0-1% slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Point was taken within a fallow pasture, outside of Wetland 1.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet:
2. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
3. _____	_____	_____	_____	OBL species _____ x 1 = _____
4. _____	_____	_____	_____	FACW species _____ x 2 = _____
5. _____	_____	_____	_____	FAC species <u>40</u> x 3 = <u>120</u>
_____ = Total Cover				FACU species <u>80</u> x 4 = <u>320</u>
Herb Stratum (Plot size: <u>5 ft</u>)				
1. <u>Schedonorus arundinaceus</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	UPL species _____ x 5 = _____
2. <u>Poa pratensis</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	Column Totals: <u>120</u> (A) <u>440</u> (B)
3. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.67</u>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>120</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Point was dominated by typical lawn grasses.				

SOIL

Sampling Point: 2

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		
0-13	10YR 3/2	100					SCL	Large cobble stones in soil
13-18	10YR 3/2	25	10YR 5/2	70	D	M	SCL	Large cobble stones in soil
			10YR 5/8	5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

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

Restrictive Layer (if observed):
 Type: Cobble
 Depth (inches): 18

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
 Point was taken outside of the low-lying depression and outside of the saturation that is visible on 2019 Google imagery and NWI map aerial imagery from the last 5 years.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 15 at CR 18, Des. 1800039 City/County: Elkhart Sampling Date: 8/14/20
 Applicant/Owner: Strand Associates, Inc. State: IN Sampling Point: 3
 Investigator(s): K. McLane Section, Township, Range: SEC 22, TWP 37 N, RNG 6 E
 Landform (hillslope, terrace, etc.): Ditch/depression Local relief (concave, convex, none): Concave
 Slope (%): 0-2 Lat: 41.651220° Long: -85.821039° Datum: WGS 84
 Soil Map Unit Name: BufA-Bronson sandy loam, 0-1% slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Point was taken within a roadside ditch wetland, Wetland 2, along the east side of SR 15.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				
1. _____	_____	_____	_____	Prevalence Index worksheet:
2. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
3. _____	_____	_____	_____	OBL species _____ x 1 = _____
4. _____	_____	_____	_____	FACW species _____ x 2 = _____
5. _____	_____	_____	_____	FAC species _____ x 3 = _____
_____ = Total Cover				FACU species _____ x 4 = _____
Herb Stratum (Plot size: <u>5 ft</u>)				
1. <i>Phalaris arundinacea</i>	100	Y	FACW	UPL species _____ x 5 = _____
2. <i>Asclepias syriaca</i>	20		FACU	Column Totals: _____ (A) _____ (B)
3. _____	_____	_____	_____	Prevalence Index = B/A = _____
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
5. _____	_____	_____	_____	<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
6. _____	_____	_____	_____	<input type="checkbox"/> 2 - Dominance Test is >50%
7. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
8. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
10. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Sample point is dominated by the invasive reed canary grass.				

SOIL

Sampling Point: 3

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		
0-5	10YR 3/2	100					SCL	
5-12	10YR 3/2	92	2.5YR 4/6	8	C	M	SCL	
12-18	10YR 3/2	20	10YR 5/2	70	D	M	SCL	
			10YR 5/8	10	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

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:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
 Point was taken within a ditch between the raised roadway and raised terrace to the east.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: SR 15 at CR 18, Des. 1800039 City/County: Elkhart Sampling Date: 8/14/20
 Applicant/Owner: Strand Associates, Inc. State: IN Sampling Point: 4
 Investigator(s): K. McLane Section, Township, Range: SEC 22, TWP 37 N, RNG 6 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): None
 Slope (%): 2-5 Lat: 41.651218° Long: -85.820985° Datum: WGS 84
 Soil Map Unit Name: BufA-Bronson sandy loam, 0-1% slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Point was taken east of SP 3/Wetland 2, on the raised terrace east of the ditch.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>25 ft</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <i>Rhus typhina</i>	50	Y	UPL	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>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
2. <i>Populus deltoides</i>	5		FAC	
3. _____				
4. _____				
5. _____				
	55 = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____
1. <i>Rhus typhina</i>	15	Y	UPL	OBL species _____ x 1 = _____
2. _____				FACW species <u>80</u> x 2 = <u>160</u>
3. _____				FAC species <u>15</u> x 3 = <u>45</u>
4. _____				FACU species <u>40</u> x 4 = <u>160</u>
5. _____				UPL species <u>65</u> x 5 = <u>325</u>
	15 = Total Cover			Column Totals: <u>200</u> (A) <u>690</u> (B)
				Prevalence Index = B/A = <u>3.45</u>
Herb Stratum (Plot size: <u>5 ft</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Phalaris arundinacea</i>	80	Y	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <i>Asclepias syriaca</i>	20		FACU	
3. <i>Schedonorus arundinaceus</i>	20		FACU	
4. <i>Apocynum cannabinum</i>	10		FAC	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	130 = Total Cover			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____				
2. _____				
Remarks: (Include photo numbers here or on a separate sheet.) The reed canary grass has spread up the slope from the ditch.				

SOIL

Sampling Point: 4

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	10YR 3/3	100					SL	
5-18	10YR 3/3	60					SL	
	10YR 4/3	40						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		

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:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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: November 6, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Kevin McLane SJCA, Inc., 1104 Prospect Street Indianapolis, IN 46203 (317) 634-4110

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with the State Road (SR) 15 at County Road (CR) 18 Intersection Improvement Project in Elkhart County, Indiana (Des. 1800039). The project is located at the intersection of SR 15 and CR 18, 1.03 miles south of US 20. The current intersection is stop controlled along CR 18, with SR 15 having no stop signs. The project will involve the addition of left turn lanes in each direction of SR 15. The turn lanes constructed will be approximately 585 feet in total length in each direction of SR 15. Rumble strips are to be added along the shoulders and centerlines of SR 15. Maintenance of traffic will require the widening of the road to one side and shifting traffic while the other side is under construction.

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

State: **IN** County/parish/borough: **Elkhart** City: **N/A**

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

Lat.: **41.652659°** Long.: **-85.821165°**

Universal Transverse Mercator: **16 T**

Name of nearest waterbody: **Pine Creek**

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)
Wetland 1	41.652773°	-85.821001°	0.24 acre	emergent wetland	Section 404
Wetland 2	41.651220°	-85.821039°	0.06 acre	emergent/shrub 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: see maps attached to Waters Report.
- 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: _____.
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 24k, Bristol.
- Natural Resources Conservation Service Soil Survey. Citation: Elkhart County Soil Survey.
- National wetlands inventory map(s). Cite name: USFWS NWI Wetland Mapper.
- State/local wetland inventory map(s): _____.
- FEMA/FIRM maps: FIRM Floodplain Map from IndianaMap.
- 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): _____
or Other (Name & Date): Site Photographs 8/14/20
- 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

 11/6/20

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 1800039

Appendix G

Public Involvement

(This Appendix will be updated upon completion of the public
involvement process)



Sample Notice of Entry Letter

NOTICE OF SURVEY

June 24, 2020



Re: Location Control Route Survey for the Indiana Department of Transportation
State Road (SR) 15 at Country Road (CR) 18 Intersection Improvement
Elkhart County, Indiana
Des. No. 1800039

Dear Property Owner:

Strand Associates, Inc.[®] (Strand) information indicates that property is occupied or owned by you near this proposed intersection improvement project. Strand employees will conduct a survey of the project area in the near future. It may be necessary for Strand to come onto your property to complete this work. This is allowed by law as stated in Indiana Code IC 8-23-7-26. Strand will show you identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please provide any known name and address changes of the new owner or current occupant so Strand may contact them about the survey.

The survey work will include mapping the location of features such as trees, buildings, fences, driveways, sidewalks, and utilities within Strand project limits. The survey is needed for proper planning and design of this intersection improvement project. Please be assured of Strand's sincere desire to cause you as little inconvenience as possible during this survey.

At this stage, Strand generally does not know what affect, if any, this project may eventually have on your property. If it is determined at a later time that your property will be affected, you will be contacted with additional information. If any problems occur, please contact Strand at (812) 372-9911 or write to the address provided. Thank you for your cooperation.

Sincerely,

STRAND ASSOCIATES, INC.[®]

Jacob E. Fitzsimmons, P.L.S.

DES 1800039

Appendix G

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	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Nappanee	41150 / 1702862	Init.	ST 1043	Road Rehabilitation (3 R/4R Standards)	Woodview Dr. from N. Main St. (SR 19) to Oakland Ave. (Co Rd 7)	Fort Wayne	.92	STBG		Group III Program	CN	\$2,330,400.00	\$0.00				\$2,330,400.00	
										Local Funds	CN	\$0.00	\$582,600.00			\$76,000.00	\$506,600.00	
Nappanee	41150 / 1702862	A 07	ST 1043	Road Rehabilitation (3 R/4R Standards)	Woodview Dr. from N. Main St. (SR 19) to Oakland Ave. (Co Rd 7)	Fort Wayne	.92	STBG	\$2,963,000.00	Group III Program	RW	\$40,000.00	\$0.00		\$40,000.00			
										Local Funds	RW	\$0.00	\$10,000.00		\$10,000.00			
Comments:Adding ROW to STIP: MACOG resolution 38-19																		
Elkhart	41395 / 1801611	Init.	ST 1022	Added Travel Lanes	Bristol St. from Jeanwood Dr. to CR 15	Fort Wayne	1.2	STBG		Local Funds	RW	\$0.00	\$120,000.00		\$120,000.00			
										Elkhart-Goshen MPO	RW	\$480,000.00	\$0.00		\$480,000.00			
Performance Measure Impacted: Pavement Condition																		
Elkhart	41395 / 1801611	M 23	ST 1022	Added Travel Lanes	Bristol St. from Jeanwood Dr. to CR 15	Fort Wayne	1.2	STBG	\$6,600,000.00	Elkhart-Goshen MPO	RW	\$0.00	\$0.00		(\$480,000.00)	\$480,000.00		
										Local Funds	RW	\$0.00	\$0.00		(\$120,000.00)	\$120,000.00		
Performance Measure Impacted: Pavement Condition																		
Comments:MACOG 20-24TIP Res_M03-21_moving ROW from 2021 to FY 2022																		
Indiana Department of Transportation	41560 / 1800039	Init.	SR 15	Intersect. Improv. W/ Added Turn Lanes	1.03 miles S of US 20 (at CR 18)	Fort Wayne	.43	STBG		Safety Construction	CN	\$954,660.00	\$238,665.00			\$15,000.00	\$1,178,325.00	
										Safety Consulting	PE	\$144,000.00	\$36,000.00	\$180,000.00				
										Safety ROW	RW	\$40,000.00	\$10,000.00			\$50,000.00		
Performance Measure Impacted: Safety																		
Indiana Department of Transportation	41562 / 1800057	Init.	SR 19	Replace Superstructure	Over Christiana Creek, 2.43 Miles South of I-90.	Fort Wayne	.3	NHPP		Bridge Construction	CN	\$3,144,252.80	\$786,063.20				\$3,930,316.00	
										Bridge ROW	RW	\$20,000.00	\$5,000.00			\$25,000.00		
Performance Measure Impacted: Bridge Condition																		
Goshen	41587 / 1801613	A 01	US 33	Auxiliary Lanes	from Fairfield to Plymouth Ave	Fort Wayne	.26	STBG	\$1,031,450.00	Local Funds	PE	\$0.00	\$41,260.00	\$41,260.00				
										Local Funds	CN	\$0.00	\$165,040.00		\$165,040.00			

FY 2020-2024 Transportation Improvement Program

Elkhart County

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
MACOG	2001101		Res. 11-21		Partners for Clean Air Program	UPWP	CMAQ	PL	\$ 50,000	\$ 12,500			\$ 62,500			\$ 62,500	2022
MACOG Transit	1700671	-	Res. 20-17		Operating Assistance	Transit Operating	5307		\$ 1,344,526	\$ 1,344,526		\$ 2,689,052				\$ 2,689,052	2021
MACOG Transit	1700672	-	Res. 20-17		Computer Hardware	Transit Communications Eqpt	5307		\$ 30,000	\$ 7,500		\$ 37,500				\$ 37,500	2021
MACOG Transit	1700673	-	Res. 20-17		Computer Software	Transit Communications Eqpt	5307		\$ 43,788	\$ 10,947		\$ 54,735				\$ 54,735	2021
MACOG Transit	1700674	-	Res. 20-17		Vehicle Replacement - Buses (1)	Transit Purchase Vehicles	5307		\$ 395,000	\$ 98,750		\$ 493,750				\$ 493,750	2021
MACOG Transit	1700675	-	Res. 20-17		Vehicle Replacement - Paratransit (3)	Transit Purchase Vehicles	5307		\$ 150,000	\$ 37,500		\$ 187,500				\$ 187,500	2021
MACOG Transit	2001800		Res. 29-20		Purchase 2 transit vehicles > 35ft	Transit Purchase Vehicles	CARES		\$ 860,000	\$ -		\$ 860,000				\$ 860,000	2021
MACOG Transit	2001801		Res. 29-20		Purchase 2 transit vehicles < 35ft	Transit Purchase Vehicles	CARES		\$ 120,000	\$ -		\$ 120,000				\$ 120,000	2021
MACOG Transit	2002315		Res. 34-20		South Bend Urbanized Area	Regional Mobility Management	5310		\$ 265,055	\$ 66,264		\$ 331,319				\$ 331,319	2021
INDOT	1600420	R-40477	Res. 26-19	US 20	US 20, Bridge Over Rowe-Eden Ditch, 1.25 Miles East of SR 13	Bridge Replacement, Other Construction	NHPP	RW	\$ 28,000	\$ 7,000		\$ 20,000	\$ 15,000			\$ 1,507,540	1/13/2022
INDOT	1600420	R-40477	Res. 26-19	US 20	US 20, Bridge Over Rowe-Eden Ditch, 1.25 Miles East of SR 13	Bridge Replacement, Other Construction	NHPP	CN	\$ 1,178,032	\$ 294,508			\$ 1,472,540			\$ 1,507,540	1/13/2022
INDOT	1600421	R-40477	Res. 26-19	US 20	US 20, Bridge Over Little Elkhart River, 1.80 Miles East of SR 13	Bridge Replacement, Other Construction	NHPP	RW	\$ 28,000	\$ 7,000		\$ 20,000	\$ 15,000			\$ 1,507,540	1/13/2022
INDOT	1600421	R-40477	Res. 26-19	US 20	US 20, Bridge Over Little Elkhart River, 1.80 Miles East of SR 13	Bridge Replacement, Other Construction	NHPP	CN	\$ 1,178,032	\$ 294,508			\$ 1,472,540			\$ 1,507,540	1/13/2022
INDOT	1600517	R-39851	Res. 43-19	US 20	US 20, from SR 15 to 4.14 miles E of SR 15 (CR 35)	Auxiliary Lanes, Two-way Left Turn Lanes	NHPP	RW	\$ 4,046,220	\$ 1,011,555	\$ 4,057,775	\$ 1,000,000				\$ 35,508,855	1/12/2022
INDOT	1600517	R-39851	Res. 43-19	US 20	US 20, from SR 15 to 4.14 miles E of SR 15 (CR 35)	Auxiliary Lanes, Two-way Left Turn Lanes	NHPP	CN	\$ 24,360,864	\$ 6,090,216	\$ 350,000	\$ 150,000	\$ 29,951,080			\$ 35,508,855	1/12/2022
INDOT	1600518	R-40477	Res. 26-19	SR 15	SR 15, 5.73 miles N of US 6 (at CR 42 North Junction)	Auxiliary Lane Construction	ST STBG	RW	\$ 24,000	\$ 6,000		\$ 20,000	\$ 10,000			\$ 327,008	1/12/2022
INDOT	1600518	R-40477	Res. 26-19	SR 15	SR 15, 5.73 miles N of US 6 (at CR 42 North Junction)	Auxiliary Lane Construction	ST STBG	CN	\$ 237,606	\$ 59,402			\$ 297,008			\$ 327,008	1/12/2022
INDOT	1600978	R-41111	Res. 26-19	SR 13	SR 13, From US 33 to SR 4	HMA Overlay, Minor Structural	ST STBG	CN	\$ 3,251,997	\$ 812,999		\$ 4,064,996				\$ 4,094,996	1/13/2021
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	1602099	R-40477	Res. 43-19	SR 119	SR 119, Bridge Over Elkhart River, 0.36 Miles south of SR 15	Bridge Replacement, Other Construction	ST STBG	PE	\$ 10,000	\$ 2,500		\$ 12,500				\$ 2,719,888	1/12/2022
INDOT	1602099	R-40477	Res. 43-19	SR 119	SR 119, Bridge Over Elkhart River, 0.36 Miles south of SR 15	Bridge Replacement, Other Construction	ST STBG	RW	\$ 88,000	\$ 22,000		\$ 15,000	\$ 95,000			\$ 3,057,360	1/12/2022
INDOT	1602099	R-40477	Res. 43-19	SR 119	SR 119, Bridge Over Elkhart River, 0.36 Miles south of SR 15	Bridge Replacement, Other Construction	ST STBG	CN	\$ 2,087,910	\$ 521,978		\$ 12,500	\$ 2,597,388			\$ 3,057,360	1/12/2022
INDOT	1700129	R-40477	Res. 26-19	SR 15	SR 15 at CR 142, 4.64 miles north of US 6	Intersect, Improv, W/ Added Turn Lanes	ST STBG	RW	\$ 16,000	\$ 4,000		\$ 5,000	\$ 15,000			\$ 498,042	1/12/2022
INDOT	1700129	R-40477	Res. 26-19	SR 15	SR 15 at CR 142, 4.64 miles north of US 6	Intersect, Improv, W/ Added Turn Lanes	ST STBG	CN	\$ 383,234	\$ 95,808			\$ 479,042			\$ 498,042	1/12/2022
INDOT	1701372	R-39912	Res. 26-19	US 6	US 6, From 1.79 Miles West of SR 19 to SR 15	HMA Overlay, Preventative Maintenance	ST STBG	CN	\$ 2,748,662	\$ 687,165		\$ 3,435,827				\$ 3,455,827	1/12/2021
INDOT	1800039	R-41560	Res. 26-19	SR 15	SR 15, 1.03 Miles S. of US 20 (at CR 18)	Intersection Improvement with Added Turn Lanes	ST STBG	RW	\$ 40,000	\$ 10,000			\$ 50,000			\$ 1,423,325	1/19/2023
INDOT	1800039	R-41560	Res. 26-19	SR 15	SR 15, 1.03 Miles S. of US 20 (at CR 18)	Intersection Improvement with Added Turn Lanes	ST STBG	CN	\$ 954,660	\$ 238,665			\$ 15,000	\$ 1,178,325		\$ 1,423,325	1/19/2023
INDOT	1800057	B-41562	Res. 25-18	SR 19	SR 19, Over Christiana Creek, 2.42 Miles S of I-18/90	Replace Superstructure	NHPP	RW	\$ 20,000	\$ 5,000			\$ 25,000			\$ 3,955,316	12/7/2022
INDOT	1800057	B-41562	Res. 25-18	SR 19	SR 19, Over Christiana Creek, 2.42 Miles S of I-18/90	Replace Superstructure	NHPP	CN	\$ 3,144,253	\$ 786,063				\$ 3,930,316		\$ 3,955,316	12/7/2022
INDOT	1800090	R-41578	Res. 26-19	US 20	US 20, from SR 15 to 4.14 Miles E. of ST 15 (CR 35)	Added Travel Lanes	ST STBG	CN	\$ 13,788,558	\$ 3,447,139				\$ 17,235,697		\$ 17,235,697	7/13/2022
INDOT	1800045		Res. 35-20	SR 119	SR 119, 1.35 miles East of SR 19 (CR7)	Intersection Improvement	ST STBG	PE	\$ 336,000	\$ 84,000			\$ 420,000			\$ 2,910,803	2025
INDOT	1800045		Res. 35-20	SR 119	SR 119, 1.35 miles East of SR 19 (CR7)	Intersection Improvement	ST STBG	RW	\$ 80,000	\$ 20,000				\$ 100,000		\$ 2,910,803	2025

DES 1800039

Appendix I

Additional Studies and Information

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

ProjectNumber	SubProjectCode	County	Property
1800054	1800054	Elkhart	Oxbow County Park
1800064	1800064	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800074	1800074	Elkhart	Oxbow County Park
1800099	1800099	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800257	1800257A	Elkhart	Elliott Park
1800257	1800257B	Elkhart	Lundquist Bicentennial Park
1800257	1800257C	Elkhart	Pinewood Park
1800283	1800283	Elkhart	High Dive Park
1800310	1800310	Elkhart	McNaughton Park
1800337	1800337	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800339	1800339	Elkhart	Shoup-Parsons Woods Park
1800340	1800340	Elkhart	Reith Park
1800354	1800354	Elkhart	Pierre Moran Park
1800441	1800441	Elkhart	High Dive Park
1800450	1800450	Elkhart	Stauffer Park, Derksen Park & McCormicks Creek G.C.
1800470	1800470	Elkhart	Studebaker Park
1800542	1800542	Elkhart	Boot Lake Nature Preserve
1800554	1800554	Elkhart	Cobus Creek County Park
1800628	1800628	Elkhart	Corson Riverwoods County Park
1800631	1800631	Elkhart	South 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.

ABBREVIATED ENGINEER'S ASSESSMENT
Road Project

Date: September 24, 2019

Route: SR 15

Des. No.: 1800039

County: Elkhart

Federal Oversight: None

Location and Project Description

The project includes improvements to SR 15 at its intersection with CR 18, 1.03 miles south of US 20 (RP 86+26 to RP 86+69). The intersection is located north of the Town of Goshen in Elkhart County. SR 15 is classified as a principal arterial and consists of one 12-foot through lane in each direction with 4-foot shoulders on each side. CR 18 is classified as a minor collector to the west of SR 15 and a local road to the east of SR 15. CR 18 consists of one 10-foot lane in each direction with no shoulders. A project location map is attached at the end of this report.



Figure 1 **Intersection of SR 15 and CR 18, facing NB**

Need for Improvement

The intersection of SR 15 and CR 18 currently experiences a high rate of rear-end collisions due to vehicles waiting in a queue to make a left-hand turn from SR 15 to CR 18. The purpose of the project is to provide a solution to reduce the crash rate.

Crash History

Crash data was collected along this segment from January 2016 through December 2018. Crashes over this three-year period are summarized in the following table.

Year	Crash Severity			Crash Type				
	Fatal/Incap.	Injury	PDO	Right Angle	Ran Off Road	Rear End	Sideswipe	R/L Turn
2016	3	1	6	2	2	3	1	2
2017	0	1	9	1	1	6	0	2
2018	1	0	6	1	1	2	2	1
Total	4	2	21	4	4	11	3	5

A RoadHAT analysis was completed using this information. It resulted in an Index of Crash Frequency (ICF) of 3.72 and an Index of Crash Cost (ICC) of 2.01. These values indicate that this intersection experiences an above-average crash frequency and safety improvements should be evaluated. The RoadHAT report is attached to this document.



Proposed Improvement

The proposed solution is the addition of left turn lanes in each direction on SR 15. Current IDM standards require a 585' left-turn lane in each direction on SR 15. The proposed improvement will likely include the removal of trees and the relocation of utilities.

The intersection is also near meeting warrants for signalization. The proposed improvements, right of way, and utility relocations will be designed such that future signalization can be accommodated without the need to reconstruct or acquire additional property.

Prior Studies and Considerations

Environmental Document Type and Approval Date:	Pending
Preliminary Field Check Held:	Pending
Environmental Permits Required:	
Rule 5 Erosion Control	Pending
Waters of the U.S. Determination	Pending

Design Data

Project Design Criteria:	3R, Non-Freeway
Functional Classification:	Principal Arterial
Terrain:	Level
Design Speed:	50 mph
Posted Speed:	50 mph
Access Control:	None
Number of Lanes and Width:	2 @ 12'
Shoulders Width and Type:	4' HMA Shoulders
Maximum Right-of-Way Width:	40' (ex.)
Minimum Right-of-Way Width:	0' (ex.)

Traffic Data

The following traffic data was taken from the INDOT Traffic Count Database. The most recent traffic count was taken in 2018. The traffic data is attached to this document.

	SR 15
AADT (2022)	12,345 VPD
AADT (2042)	14,719 VPD
DHV (2042)	8.61 %
Comm. Veh.	8% AADT
Directional Distribution	55% NB
Growth Rate Used*	1% per year

* - Linear growth rate assumed

Description of Right of Way

Along SR 15 to the south of CR 18, there is 40' of apparent existing right of way on each side of the centerline. To the north, there is 35' of apparent existing right of way on each side of the centerline. Along CR 18, the apparent existing right of way varies from 14' to 52' from the centerline. Based upon the Elkhart County GIS system, the right of way in the southeast quadrant may be the only parcel that has been properly recorded. Although roughly 0.25 acres of permanent new right of way is anticipated for the proposed improvements, reacquisition of assumed right of way will require an additional 1.2 acres. It appears that acquisition will be required from four (4) separate parcels, three of which are residential/agricultural and the fourth is a religious facility in the southwest corner of the intersection.

There are existing overhead utilities, including electric and transmission lines, present on both sides of SR 15 that will likely require relocation because of conflicts between the poles and the proposed construction. There are existing underground utilities, including gas and telecom lines, along both sides of SR 15 that will most likely be impacted by this project. A completed Design Ticket is attached to this report. Future strain pole locations should be noted during utility coordination to avoid conflicts during any future signalization project at the intersection. One (1) tree to the northwest of the intersection along the west side of SR 15 will need to be removed to improve intersection sight distance.

Estimated Costs

	<u>Year: 2023</u>
Preliminary Engineering:	\$ 140,000
Construction:	\$ 578,058
Utilities:	\$ 20,000
<u>Right-of-Way:</u>	<u>\$ 100,000</u>
Total Cost:	\$ 838,058

Maintenance of Traffic During Construction

During construction, maintenance of traffic will likely consist of shifting traffic to the shoulders and narrowing lanes. The shoulders will likely require reinforcing with additional HMA to support traffic.

A geotechnical analysis and pavement investigation will be required to determine whether the existing shoulders can support traffic during construction, as well as to determine the appropriate pavement design for the proposed full-depth widening.

Environmental Impacts

There appears to be a wetland near the southernmost project limits, on the east side of SR 15. Once the exact limits of this wetland are delineated, efforts will be taken to minimize impacts. A Categorical Exclusion (CE) will be developed during the design phase of the project. All provisions of the CE will be adhered to. A Red Flag Investigation had been completed for the project area and is attached to this report.

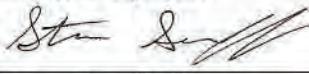
Changes to Engineer's Report

The Fort Wayne District Technical Services Department shall be consulted if deviation from this document is determined to be necessary during a later phase of project development. The person initiating the change should send a memo detailing the changes including justification for the change and the estimate cost difference to the Fort Wayne District Technical Services Director, System Asset Manager, and Project Manager for concurrence.



Marc Rape, P.E.
Design Engineer

September 24, 2019
Date

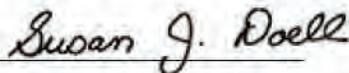


Steve Seculoff
Project Manager

10/8/2019
Date

Randy Post
System Asset Manager

Date



Susan Doell
Scoping Manager

10/8/19
Date

Attachments:

- Location Map
- Aerial
- Kick-off Meeting Minutes
- RoadHAT Report
- INDOT Traffic Database
- Utility Design Ticket
- Construction Cost Estimate
- Red Flag Investigation

Index of Crash Frequency and Cost - Form F1		Page 1/2
Location	SR 15/CR 18	
GIS		
Post		
Analyst	JTO	
Date	7/18/2019	
INPUT		
Road Facility Type	Unsignalized Rural State-Local Intersection	
Major Road AADT (veh/day)		11870
T-intersection Indicator (1 if present, 0 otherwise)		0
First Year with Crash Data (yyyy)		2016
Last Year with Crash Data (yyyy)		2018
Number of Crashes (crash/period)		
Fatal and Incapacitating Injury Crashes		4
Non-Incapacitating and Possible Injury Crashes		2
Property Damage Only Crashes		21
Route or Road Type	Unsignalized Rural State-Local Intersection	
Average Crash Costs (\$)		
Fatal and Incapacitating Injury Crashes		459600
Non-Incapacitating and Possible Injury Crashes		32700
Property Damage Only Crashes		5000
Crash Cost Year (yyyy)		2013
OUTPUT		
Expected Crash Frequency (crash/year)		
Fatal and Incapacitating Injury Crashes		0.055
Non-Incapacitating and Possible Injury Crashes		0.30
Property Damage Only Crashes		0.94
All Crashes		1.30
Index of Crash Frequency		3.72
Index of Crash Cost		2.01

Index of Crash Frequency and Cost - Form F1		Page 2/2
Location	SR 15/CR 18	
GIS		
Post		
Analyst	JTO	
Date	7/18/2019	
Comments:		

Location ID	200645	MPO ID	
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	No
LRS ID	92000000150000001	LRS Loc Pt.	85.01515
SF Group	U2_SWG	Route Type	State Road
AF Group	U2_A	Route	15
GF Group	U2_SWG	Active	Yes
Class Dist Grp		Category	
Seas Class Grp			
WIM Group			
QC Group	JUR9SHORT		
Funct'l Class	Other Principal Arterial (OPA)	Milepost	
Located On	SR 15 100 N/O KERCHER ROAD		
Loc On Alias	SR 15		

PR	MP	PT	▼

More Detail ▶

STATION DATA

Directions: **2-WAY** **NEG** **POS** **?**
 1 1

AADT **?**

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2018	11,870	1,022	9	55	10,887 (92%)	982 (8%)	
2017	11,461 ³		8	63	9,593 (84%)	1,867 (16%)	Grown from 2016
2016	11,359 ³		8	63	9,508 (84%)	1,850 (16%)	Grown from 2015
2015	11,325 ³		8	63	9,480 (84%)	1,844 (16%)	Grown from 2014
2014	11,081	871	8	63	9,276 (84%)	1,804 (16%)	

<< < > >> 1-5 of 11

Travel Demand Model

Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV

VOLUME COUNT

Date	Int	Total
Wed 3/21/2018	15	12,481
Tue 8/19/2014	15	11,837
Mon 8/18/2014	15	11,773
Wed 10/12/2011	60	12,635
Tue 10/11/2011	60	12,633

VOLUME TREND **?**

Year	Annual Growth
2018	4%
2017	1%
2016	0%
2015	2%
2014	-5%
2013	-1%
2012	0%
2011	-2%
2001	5%
1996	-2%

SPEED

Date	Int	Pace	85th	Total
Tue 8/19/2014	15	30 - 40	41	11,837
Mon 8/18/2014	15	30 - 40	41	11,773
Wed 10/12/2011	60	35 - 45	46	12,635
Tue 10/11/2011	60	35 - 45	46	12,633

CLASSIFICATION

Date	Int	Total
Wed 3/21/2018	15	12,481
Tue 8/19/2014	15	11,837
Mon 8/18/2014	15	11,773
Wed 10/12/2011	60	12,635
Tue 10/11/2011	60	12,633

Route: SR 15/CR 18
Loc. ID: 200645
Growth Rate: 1%

Year	AADT	DHV
2018	11870	1022
2019	11989	1032
2020	12107	1042
2021	12226	1053
2022	12345	1063
2023	12464	1073
2024	12582	1083
2025	12701	1094
2026	12820	1104
2027	12938	1114
2028	13057	1124
2029	13176	1134
2030	13294	1145
2031	13413	1155
2032	13532	1165
2033	13651	1175
2034	13769	1186
2035	13888	1196
2036	14007	1206
2037	14125	1216
2038	14244	1226
2039	14363	1237
2040	14481	1247
2041	14600	1257
2042	14719	1267

United States Census Bureau

ALL TABLES **MAPS** PAGES

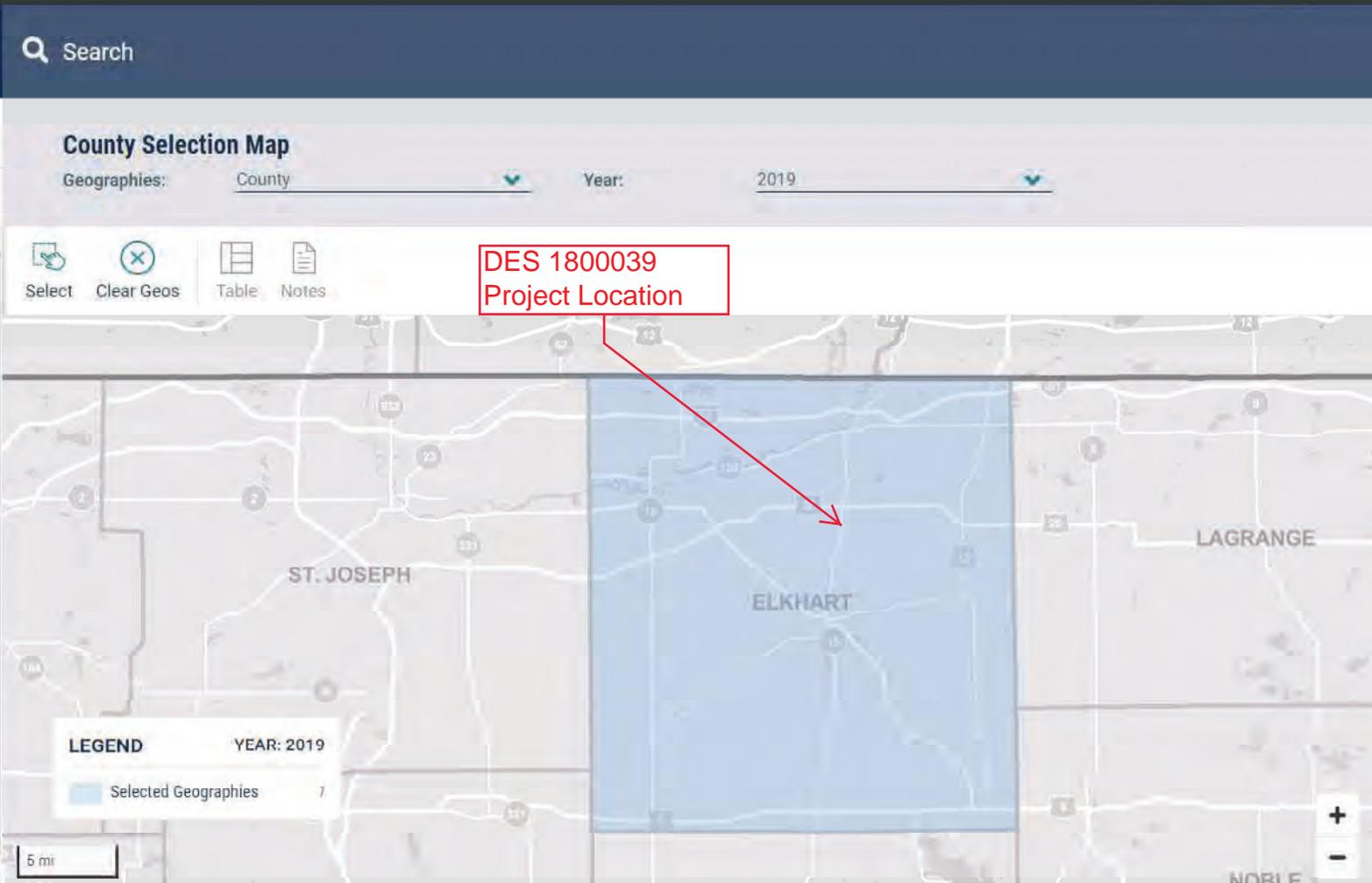
1 Results **FILTER | DOWNLOAD**

SELECTION MAP

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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FOIA
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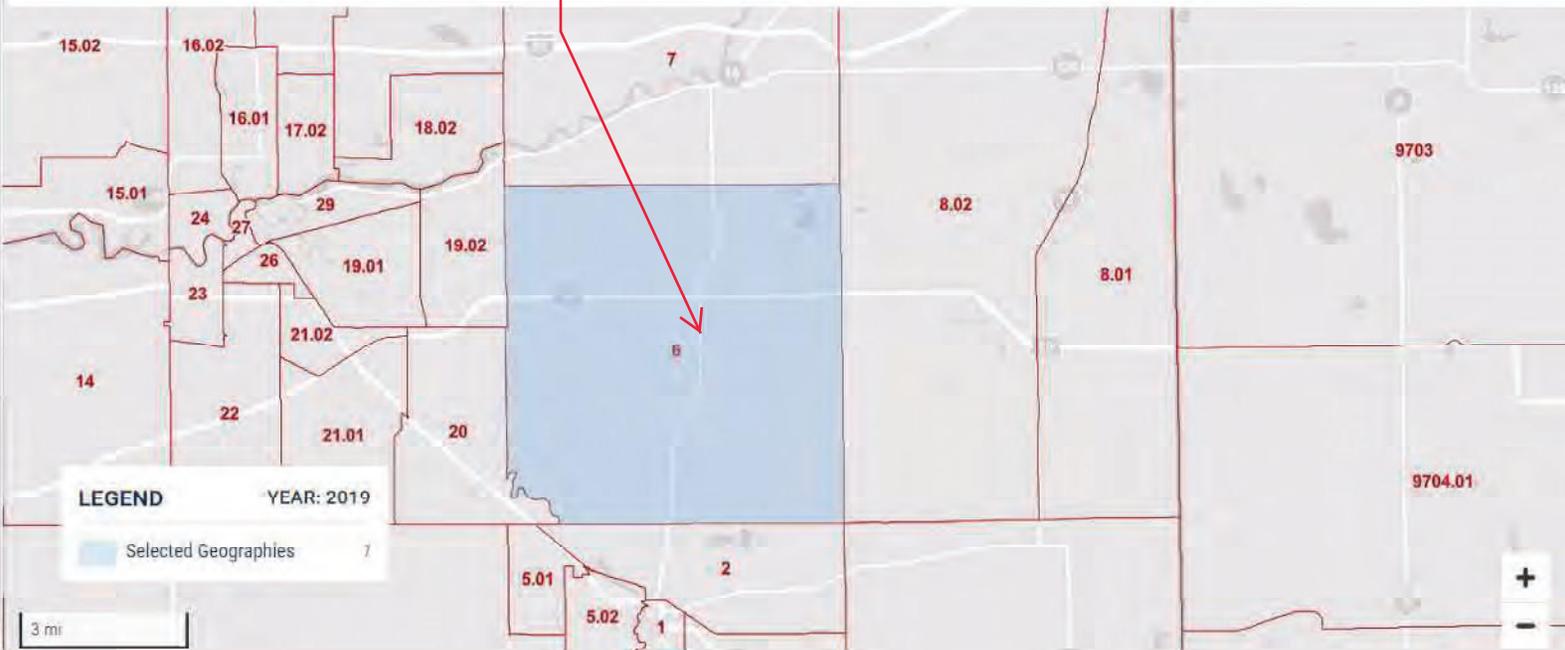
1 Results FILTER | DOWNLOAD

SELECTION MAP

Select Clear Geos Table Notes

DES 1800039
Project Location

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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People, Places and Economy



HISPANIC OR LATINO ORIGIN BY RACE

Survey/Program: American Community Survey

Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010

Table: B03002

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

	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana
Label	Estimate	Margin of Error	Estimate
▼ Total:	204,558	*****	10,169
▼ Not Hispanic or Latino:	171,975	*****	9,067
White alone	152,973	±178	8,504
Black or African American alone	11,054	±690	106
American Indian and Alaska Native alone	288	±111	0
Asian alone	2,147	±203	170
Native Hawaiian and Other Pacific Islan...	109	±85	13
Some other race alone	395	±173	51
▼ Two or more races:	5,009	±756	223
Two races including Some other race	80	±66	0
Two races excluding Some other race...	4,929	±753	223
▼ Hispanic or Latino:	32,583	*****	1,102
White alone	25,568	±1,158	223



HISPANIC OR LATINO ORIGIN BY RACE
 Survey/Program: American Community Survey
 Years: 2019,2018,2017,2016,2015,2014,2013,2012,2011,2010
 Table: B03002

	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana
Label	Estimate	Margin of Error	Estimate
Two or more races:	5,009	±700	229
Two races including Some other race	80	±66	0
Two races excluding Some other race...	4,929	±753	223
Hispanic or Latino:	32,583	*****	1,102
White alone	25,568	±1,152	329
Black or African American alone	61	±57	0
American Indian and Alaska Native alone	191	±173	0
Asian alone	0	±28	0
Native Hawaiian and Other Pacific Islan...	75	±64	0
Some other race alone	5,283	±1,129	289
Two or more races:	1,405	±384	484
Two races including Some other race	790	±361	185
Two races excluding Some other race...	615	±407	299

Accessibility

Information Quality

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people, Places and Economy

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 Survey/Program: American Community Survey Product: 2019: ACS 5-Year Estimates Detailed Tables
 TableID: B17001 Universe: Population for whom poverty status is determined CUSTOMIZE TABLE

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

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Label	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error
▼ Total:	200,909	±418	10,140	
▼ Income in the past 12 month...	24,885	±2,163	301	
▼ Male:	10,831	±1,138	91	
Under 5 years	1,972	±461	12	
5 years	210	±136	0	
6 to 11 years	1,647	±395	0	
12 to 14 years	560	±211	12	
15 years	250	±128	0	
16 and 17 years	371	±156	0	
18 to 24 years	1,094	±330	1	
25 to 34 years	720	±174	15	
35 to 44 years	1,325	±232	0	
45 to 54 years	1,194	±285	11	
55 to 64 years	789	±181	14	

ALL TABLES MAPS PAGES

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 Survey/Program: American Community Survey Product: 2019: ACS 5-Year Estimates Detailed Tables
 TableID: B17001 Universe: Population for whom poverty status is determined CUSTOMIZE TABLE

10 Results FILTER | DOWNLOAD

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

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	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana	
Label	Estimate	Margin of Error	Estimate	
45 to 54 years	1,194	±285	11	
55 to 64 years	789	±181	14	
65 to 74 years	322	±113	15	
75 years and over	377	±155	11	
Female:	14,054	±1,299	210	
Under 5 years	1,457	±327	0	
5 years	169	±102	0	
6 to 11 years	1,645	±345	12	
12 to 14 years	934	±288	0	
15 years	168	±109	0	
16 and 17 years	280	±126	13	
18 to 24 years	1,773	±324	86	
25 to 34 years	2,319	±320	31	
35 to 44 years	1,697	±346	16	

THE PAST 12 MONTHS

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Survey/Program: American Community Survey Product: 2019: ACS 5-Year Estimates Detailed Tables
 TableID: B17001 Universe: Population for whom poverty status is determined

CUSTOMIZE TABLE

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

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	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana	
Label	Estimate	Margin of Error	Estimate	
35 to 44 years	1,697	±346	16	
45 to 54 years	1,097	±292	13	
55 to 64 years	1,105	±189	23	
65 to 74 years	559	±139	3	
75 years and over	851	±203	13	
Income in the past 12 month...	176,024	±2,147	9,839	
Male:	88,210	±1,175	5,120	
Under 5 years	5,824	±460	418	
5 years	979	±211	109	
6 to 11 years	8,271	±536	727	
12 to 14 years	4,161	±457	260	
15 years	1,407	±236	174	
16 and 17 years	2,780	±274	207	
18 to 24 years	8,075	±331	334	

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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
 Survey/Program: American Community Survey Product: 2019: ACS 5-Year Estimates Detailed Tables
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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
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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
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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (BLACK OR AFRICAN AMERICAN ALONE)
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	Elkhart County, Indiana		Census Tract 6, Elkhart County, Indiana	
Label	Estimate	Margin of Error	Estimate	
15 years	1,407	±236	174	
16 and 17 years	2,780	±274	207	
18 to 24 years	8,075	±331	334	
25 to 34 years	12,048	±245	610	
35 to 44 years	10,788	±247	712	
45 to 54 years	11,443	±281	688	
55 to 64 years	10,813	±227	414	
65 to 74 years	7,374	±157	376	
75 years and over	4,247	±202	91	
Female:	87,814	±1,273	4,719	
Under 5 years	6,027	±328	263	
5 years	874	±235	28	
6 to 11 years	7,540	±484	725	
12 to 14 years	4,234	±368	343	

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE
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POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (WHITE ALONE)
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5 years	874	±235	28	
6 to 11 years	7,540	±484	725	
12 to 14 years	4,234	±368	343	
15 years	1,239	±232	139	
16 and 17 years	2,931	±248	161	
18 to 24 years	6,656	±334	202	
25 to 34 years	10,475	±340	669	
35 to 44 years	10,741	±358	679	
45 to 54 years	11,539	±295	501	
55 to 64 years	11,198	±191	656	
65 to 74 years	8,229	±154	281	
75 years and over	6,131	±240	72	

THE PAST 12 MONTHS

Environmental Justice Analysis for SR 15/CR 18 Intersection Improvement (Des 1800039)

		COC	AC
		Elkhart County, Indiana	Census Tract 6, Elkhart County, Indiana
LOW-INCOME			
B 17001001	Population for whom poverty status is determined: Total	200,909	10,140
B 17001002	Population for whom poverty status is determined: Income in past 12 months below poverty	24,885	301

Percent Low-Income	12.4%	3.0%
125 Percent of COC	15.5%	AC<125% COC
Potential Low-Income EJ Impact?		No

MINORITY

B 03002001	Total population: Total	204,558	10,169
B 03002002	Total population: Not Hispanic or Latino	171,975	9,067
B 03002003	Total population: Not Hispanic or Latino; White alone	152,973	8,504
B 03002004	Total population: Not Hispanic or Latino; Black or African American alone	11,054	106
B 03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	288	0
B 03002006	Total population: Not Hispanic or Latino; Asian alone	2,147	170
B 03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	109	13
B 03002008	Total population: Not Hispanic or Latino; Some other race alone	395	51
B 03002009	Total population: Not Hispanic or Latino; Two or more races	5,009	223
B 03002010	Total population: Hispanic or Latino	32,583	1,102
B 03002011	Total population: Hispanic or Latino; White alone	25,568	329
B 03002012	Total population: Hispanic or Latino; Black or African American alone	61	0
B 03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	191	0
B 03002014	Total population: Hispanic or Latino; Asian alone	0	0
B 03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	75	0
B 03002016	Total population: Hispanic or Latino; Some other race alone	5,283	289
B 03002017	Total population: Hispanic or Latino; Two or more races	1,405	484

Number Non-White/Minority (P007001-P007003)	51,585	1,665
Percent Non-White/Minority	25.2%	16.4%
125 Percent of COC	31.5%	AC<125% COC
Potential Minority EJ Impact?		No