

# ENVIRONMENTAL ASSESSMENT

**ROUTE: FAP 326 IL Route 47**

**Section: Reed Road to U.S. Route 14**

**McHenry County**

**Job No: P-91-101-07**

**PTB#: 142-033**



Illinois Department of Transportation  
District 1

**September 2014**

**ILLINOIS ROUTE 47 (FAP 326)  
SECTION: Reed Road to U.S. Route 14  
MCHENRY COUNTY**

**ENVIRONMENTAL ASSESSMENT**

Submitted Pursuant to 42 USC 4332 (2)(c)  
By the

U. S. Department of Transportation  
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And

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Cooperating Agencies

Illinois Department of Agriculture  
Illinois Department of Natural Resources

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ACRONYMS

ADID	Advanced Identification
ADT	Average Daily Traffic
AST	Aboveground Storage Tank
BDE	IDOT Bureau of Design and Environment
BMPs	Best Management Practices
BRR	Biological Resources Review
CFR	Code of Federal Regulations
CMAP	Chicago Metropolitan Agency for Planning
CMP	Congestion Management Process
CNE	Common Noise Environment
CO	Carbon Monoxide
COSIM	Carbon Monoxide Screening for Intersection Modeling
CRP	Conservation Reserve Program
CSS	Context Sensitive Solutions
dB(A)	A-weighted Decibel
DCP	Dust Control Plan
EcoCAT	Ecological Compliance Assessment Tool
ESA	Endangered Species Act
ESR	Environmental Survey Request
FHWA	Federal Highway Administration
HUC	Hydrologic Unit Code
IAC	Illinois Administrative Code
IDNR	Illinois Department of Natural Resources
IDOA	Illinois Department of Agriculture
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
ILCS	Illinois Compiled Statutes
INHS	Illinois Natural History Survey
ISAS	Illinois State Archaeological Survey
ISGS	Illinois State Geologic Survey
LAWCON	Land and Water Conservation
LESA	Land Evaluation and Site Assessment
LOS	Level of Service
LUST	Leaking Underground Storage Tank
MPH	Miles Per Hour
MSAT	Mobile Source Air Toxic
NAAQS	National Ambient Air Quality Standard
NAC	Noise Abatement Criteria
NPDES	National Pollutant Discharge Elimination System
OSLAD	Open Space Lands Acquisition and Development
PESA	Preliminary Environmental Site Assessment
PM <sub>2.5</sub>	Particulate Matter with particles smaller than 2.5 micrometers in diameter
PM <sub>10</sub>	Particulate Matter with particles smaller than 10 micrometers in diameter
REC	Recognized Environmental Concern

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SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SOV	Single Occupancy Vehicles
SWPPP	Stormwater Pollution Prevention Plan
TIP	Transportation Improvement Program
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Act
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USNRCS	National Resource Conservation Service
VMT	Vehicle Miles Traveled
VPH	Vehicles Per Hour
WHPA	Wellhead Protection Recharge Areas

# Chapter 1 Introduction

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## 1.0 Introduction

This Environmental Assessment is being conducted to assess potential impacts that could result from a proposed widening of Illinois Route 47 (IL 47). The study area extends approximately eight miles along IL 47 from Reed Road to U.S. Route 14 (US 14) through the communities of Huntley, Woodstock, Lake in the Hills, Lakewood, and unincorporated McHenry County. See [Exhibit 1-1](#), Location Map and [Exhibit 1-2](#), Detailed Location Map. The proposed work would widen the existing roadway to two lanes in each direction, with a grassy median. It is located within the Kishwaukee River Watershed, an ecologically diverse watershed that contains sensitive plant and animal species, as well as highly permeable soils.

### What is an Environmental Assessment?

An Environmental Assessment (EA) is a document prepared for a proposed project under the National Environmental Policy Act. The EA describes the purpose and need for the project, the alternatives considered, the existing socioeconomic and environmental conditions in the project vicinity, and any anticipated impacts on socioeconomics or environmental resources. The EA serves to advise the public and stakeholders on the project and help make a decision as to the desirability of the project.

If the EA determines that there are no significant impacts anticipated from the project, a Finding of No Significant Impacts (FONSI) can be issued. If a FONSI cannot be concluded, additional studies or an Environmental Impact Statement may be warranted.

IL 47 is classified as a rural Strategic Route Arterial and is included as part of the National Highway System. IL 47 is important to the north-south transportation linkage because it provides access to residential, retail, commercial, agricultural, and recreational lands throughout the region, including Wisconsin. The nearest parallel state highway is IL Route 31 located seven miles east of IL 47. Other transportation studies along IL 47 have taken place or are ongoing. South of Reed Road, a Phase I Study/Categorical Exclusion was previously completed; the roadway was completed in the summer of 2011. North of US 14, a separate Phase I Study/Environmental Assessment has been initiated that will study improvements to IL 47 from US 14 to Charles Road.

The project would serve to address safety and capacity deficiencies along the existing facility. The rural land use between Huntley and Woodstock is planned for and experiencing residential growth, further adding to the capacity demands. The IL 47 improvements would be designed to address the needs of this growth allowing better access to US 14 and Illinois Route 176 (IL 176) and the employment centers to the south and east. In addition, an “Illinois Tomorrow” grant was awarded that provides a land use based study of the IL 47 corridor from within Kane County northward to the Wisconsin State line. This latter study is intended to evaluate current land use and provide a planning document that combines the comprehensive planning efforts of the communities along the corridor.

The speed limit along IL 47 within this study area is 45 mph south of Rainsford Drive, 55 mph between Rainsford Drive and Hercules Road, and 40 mph north of Hercules Road. The roadway consists of two twelve foot through lanes, widening to four twelve foot lanes in some commercial and residential subdivision areas, with gravel shoulders. The existing right of way is 80 feet throughout except for just south of US 14, where the right of way expands to 200 feet. There are four signalized intersections throughout the project area located at Reed Road, US 14,

## Chapter 1 Introduction

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and both intersections with IL 176. In addition to these intersections, there are a number of intersecting roads that are controlled by stop signs.

If the proposed widening of IL 47 is undertaken, the following environmental impacts are expected.

- 25.77 acres of wetland impacts
- 1.49 acres of Waters of the U.S. impacts
- 76.93 acres of impacts to agricultural land
- 18.83 acres of floodplain impacts
- two business/commercial displacements
- three residential displacements
- four businesses will have portions of their property impacted

This Environmental Assessment discusses the purpose and need for the proposed improvements, summarizes the alternatives considered and reasons for choosing the preferred alternative, as well as discusses the environmental impacts that could be expected. Minimization and mitigation strategies are also included, where appropriate.

# Chapter 2 Purpose and Need

## 2.0 Purpose and Need

### 2.1 Purpose of the Project

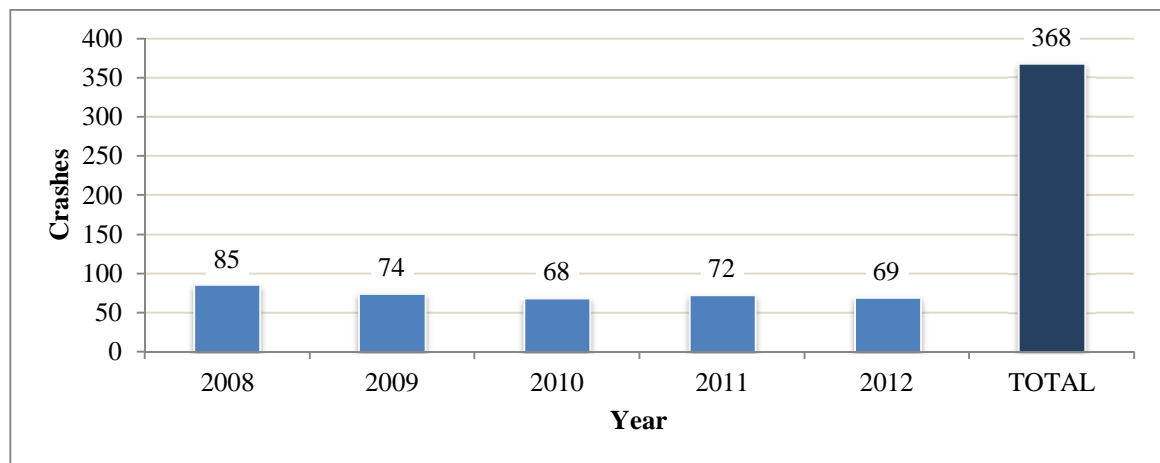
The purpose of the proposed action is to provide an improved transportation system for IL 47 from Reed Road to US 14. Improvements to this route are needed to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth.

### 2.2 Project Need

#### 2.2.1 Safety

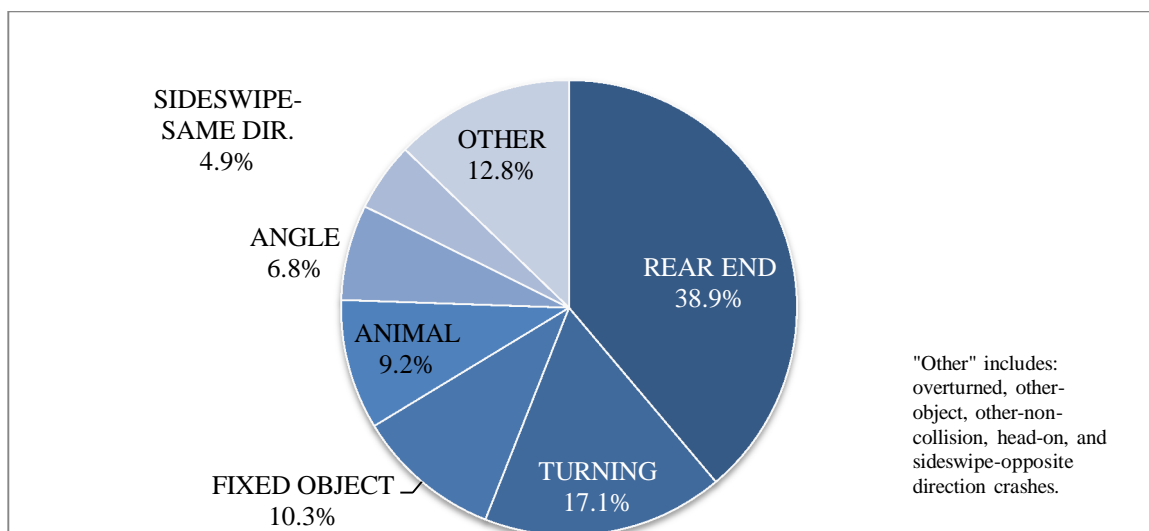
##### *Vehicular Crash Data*

The crashes within the project area have been recorded using the Illinois Traffic Crash Report. During the five-year study period from 2008-2012, a total of 368 crashes occurred along IL 47 as shown in **Figure 2-1**.



**Figure 2-1: Total Crashes 2008 - 2012**

**Figure 2-2** presents the 368 crashes by crash type. The predominant crash types for the five year study period were rear-end followed by turning, fixed object, animal, angle, and sideswipe same direction crashes. Other crash types accounted for less than 13% of total crashes. Lighting, weather, and wet pavement conditions do not appear to be a primary influence of the crashes within the project area.



**Figure 2-2: Crash Type (2008 – 2012)**

During 2008-2012, a total of 191 injuries and three fatalities were recorded. **Table 2-1** presents the crash severity data for the five year period. One crash involving a fatality occurred in 2008 between Conley Road and Foster/Union Road. A second crash involving two fatalities occurred in 2012 at the IL 47 and IL 176 (West Leg) intersection.

**Table 2-1: IL 47 Corridor Crashes by Crash Injury Category (2008-2012)**

Crash Injury	Total	%
Type A - Incapacitating	27	14.1
Type B - Non-Incapacitating	97	50.8
Type C - Report/Not Evident	64	33.5
Type K – Fatality	3	1.6
<b>Total</b>	<b>191</b>	<b>100</b>

*Signalized Intersection of IL 47 and IL 176 (Split Intersection)*

The Illinois Department of Transportation (IDOT) listed this split intersection in the 2010 Selected Arterial 5% Segments due to the high number of crashes that have occurred at the south (East Leg) and north (West Leg) intersections. The majority of the crashes occurring at these locations are rear-end crashes and turning crashes. See **Table 2-2** for information on these crashes.

Table 2-2: IL 47 at IL 176 Intersection Crashes by Crash Type (2008-2012)

Crash Type	East Leg Intersection Totals	West Leg Intersection Totals	Combined Total	Combined %
REAR END	20	33	53	52.5
TURNING	18	21	39	38.6
OTHER (Animal, Fixed Object, Sideswipe-same direction, Angle, Sideswipe-opposite direction)	4	5	9	8.9
<b>TOTALS</b>	<b>42</b>	<b>59</b>	<b>101</b>	<b>100</b>

Potential contributory factors to rear-end crashes include heavy approach traffic volumes, and high vehicle approach speeds. Potential contributory factors to turning crashes include heavy turning volumes and high vehicle approach speeds, which result in the misjudgment of gaps in opposing through movements.

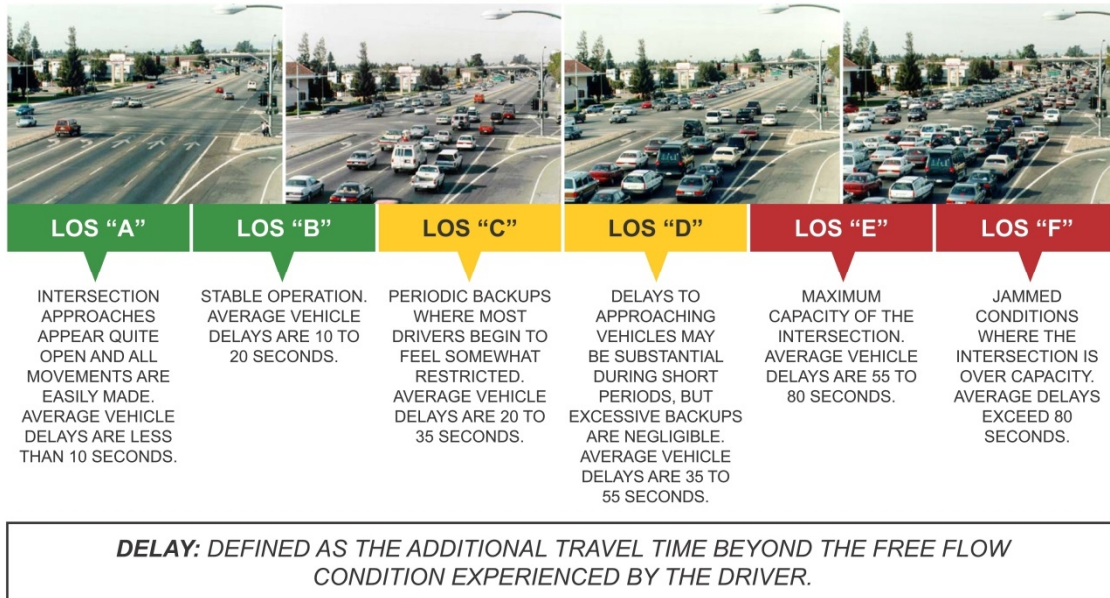
**2.2.2 Capacity and Mobility**

*Level of Service*

Level-of-Service (LOS) classification is used to classify how well traffic flows through signalized intersections. LOS A describes operations with very low delay, up to an average of 10 seconds per vehicle, while LOS F describes operations with very high delay, in excess of 80 seconds. In general, IDOT targets a minimum LOS C for roadways similar in classification to IL 47. **Figure 2-3** demonstrates LOS.

<p><b>What is Level of Service?</b></p> <p>Level of Service (LOS) is a measurement used to describe traffic flow or the amount of congestion a section of roadway experiences. It can be used to determine speed and travel time, the amount of delay, and traffic-related safety issues can be implied.</p> <p>There are six LOS, each given a letter designation.</p> <p>LOS A represents low volumes and higher speeds of traffic associated free flowing traffic.</p> <p>LOS B has stable flow but operating speeds are beginning to be restricted due to traffic conditions.</p> <p>LOS C still has stable flow but speeds and maneuverability are restricted.</p> <p>LOS D is the level of service where traffic becomes unstable. There is little freedom to maneuver and there are substantial drops in speed.</p> <p>LOS E has lower operating speeds, the flow is unstable, and there may be momentary halts in traffic.</p> <p>LOS F has low operating speeds and traffic often stops, forming vehicle backups.</p>
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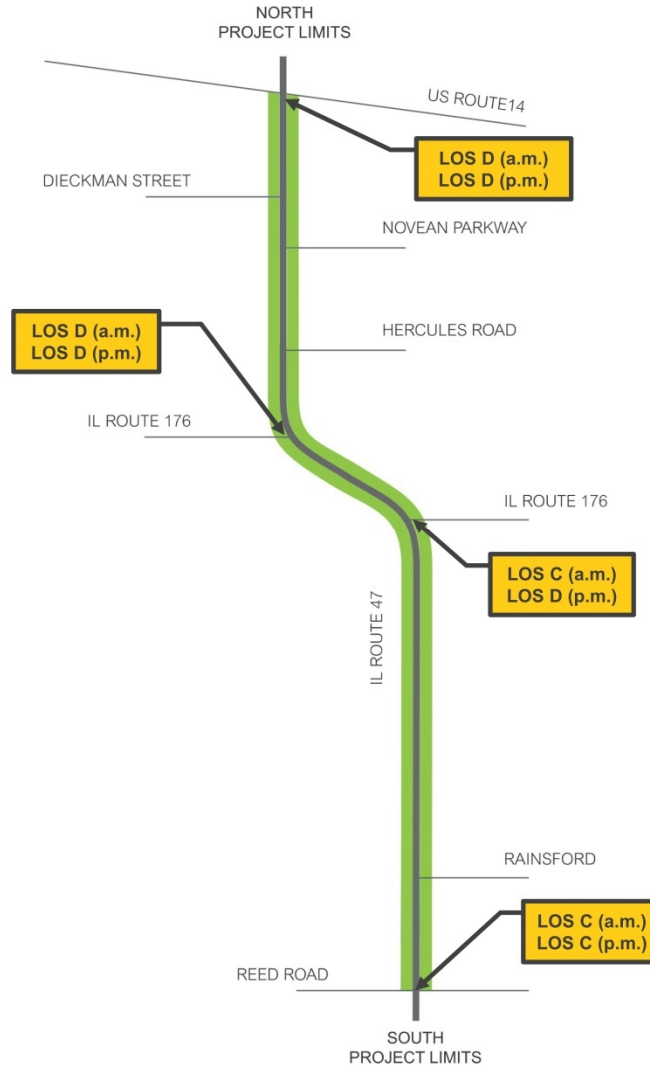
WHAT IS A LEVEL OF SERVICE?



**Figure 2-3: Level of Service Diagram**

For the No-Action alternative, the design year 2040 LOS at the signalized intersections range from C to D and individual movements experience LOS E and F, that indicates poor intersection operations. The intersection of IL 47/Reed Road, a four-legged intersection, will have a LOS of C in both the a.m. and p.m. peak periods. IL 47/IL 176 (West Leg), a three legged intersection, will have a LOS of D in both the a.m. and p.m. peak periods. The intersection of IL 47/IL 176 (East Leg), a three legged intersection, will have an a.m. LOS of C and p.m. LOS of D, LOS E occurs on the left turn movement from southbound IL 47 to IL 176 (East Leg), and LOS F occurs on the northbound IL 47 through movement. Under these conditions, the backups along IL 47 will extend approximately 1550 feet in the northbound direction. These backups block safe access to side streets and retail establishments. IL 47/US 14, a four-legged intersection, will have a LOS of D in both the a.m. and p.m. peak periods. [Figure 2-4](#) shows the a.m. and p.m. peak LOS for these intersections.





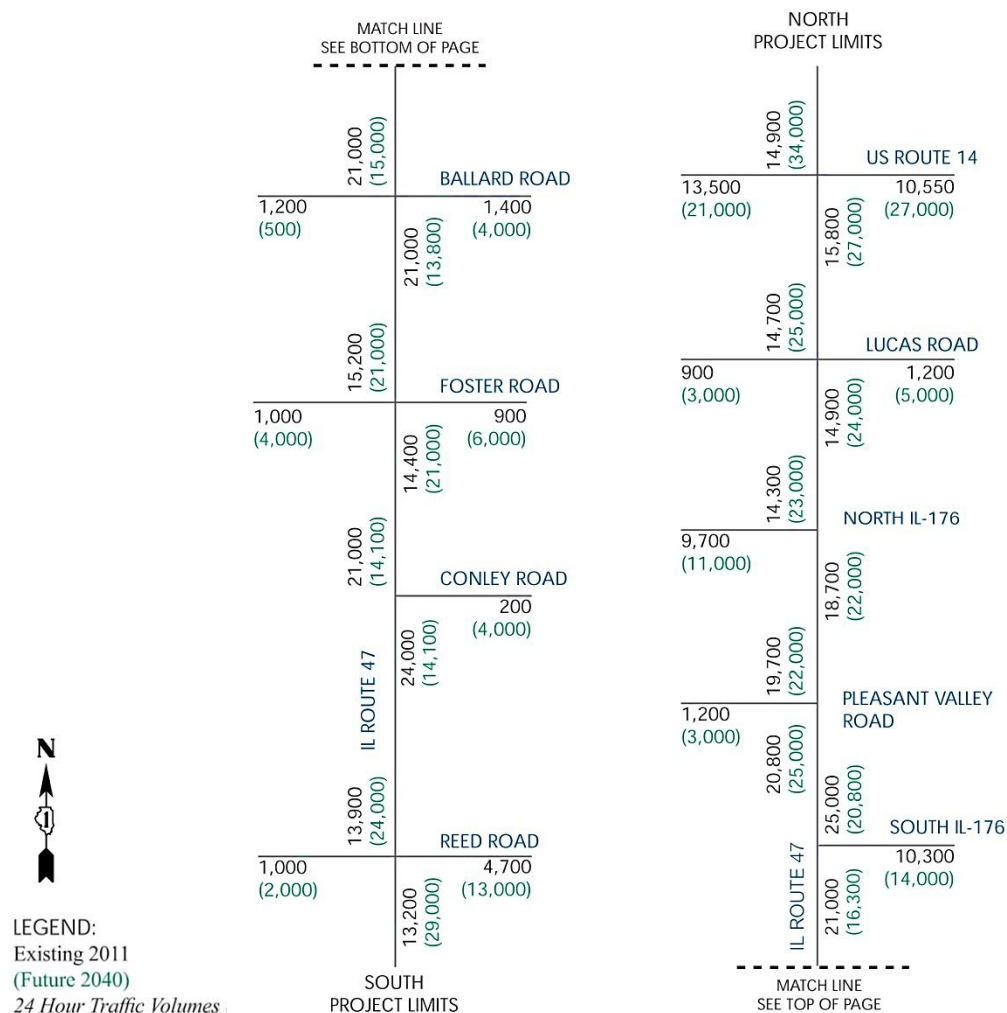
**Figure 2-4 No Action 2040 LOS at select IL 47 Intersections**

*Capacity*

Currently (2011), the route carries between 14,300 and 22,300 vehicles per day, averaging 17,100 vehicles per day over the length of the project. In 2040 the projected traffic levels are between 21,000 and 29,000 vehicles per day, averaging 24,600 vehicles per day over the length of the project. A two lane roadway can safely and efficiently accommodate between 14,000 and 18,000 vehicles per day. **Figure 2-5** presents the existing and projected average daily traffic volumes along the corridor. Current traffic volumes exceed that level and are projected to increase at every intersection along the project. Crashes throughout the study area appear to be caused primarily by a lack of capacity and safe turning accommodations. The existing two lane roadway typically does not provide channelized turn lanes. During peak hours, lengthy queues are formed when

## Chapter 2 Purpose and Need

vehicles attempt to make left turns at unsignalized intersections. The congestion and stopped traffic results in driver frustration and an increased potential for rear-end and turning type crashes. Slow moving vehicles from adjacent agricultural and quarrying activities further compound the turning deficiencies. These slow moving vehicles, that create the potential for collisions, are concentrated near the intersections of Conley Road, Ballard Road, and Foster/Union Road.



**Figure 2-5 Existing (2011) and Projected (2040) Traffic Volumes**

### Mobility

The northern mile of the project is characterized by numerous existing commercial properties with additional commercial properties in the planning stages. These properties generate turning vehicles that slow the flow of traffic. Access to the properties should be consolidated to reduce conflict points. The lack of pedestrian and bicycle accommodations do not afford alternate means to travel between the commercial properties, increasing the number of vehicles entering and exiting the roadway. Separating the pedestrians and bicycles from vehicle traffic would reduce conflicts between them.

The southern end of the project is much more rural in nature. Access points are spread out with few vehicles entering or exiting the roadway. There are few destinations for pedestrians or bicycles in this portion of the project. Pedestrian and bicycle accommodations will, however, be provided.

### 2.2.3 Economic Development

Locally, IL 47 serves as a transportation corridor in the Cities and Villages of Huntley, Woodstock, Lake in the Hills, and Lakewood, that consist of mixed use, multi-family residential, public/institutional, and commercial land uses. The current traffic queues and level of service contribute to poor and unsafe access for the land uses that exist throughout the project area. Left turn channelization is sporadic throughout the project area and access to adjacent properties is limited (see [Figure 2-6](#) for a demonstration on channelization). These problems will continue to increase as more residential and commercial facilities are built.

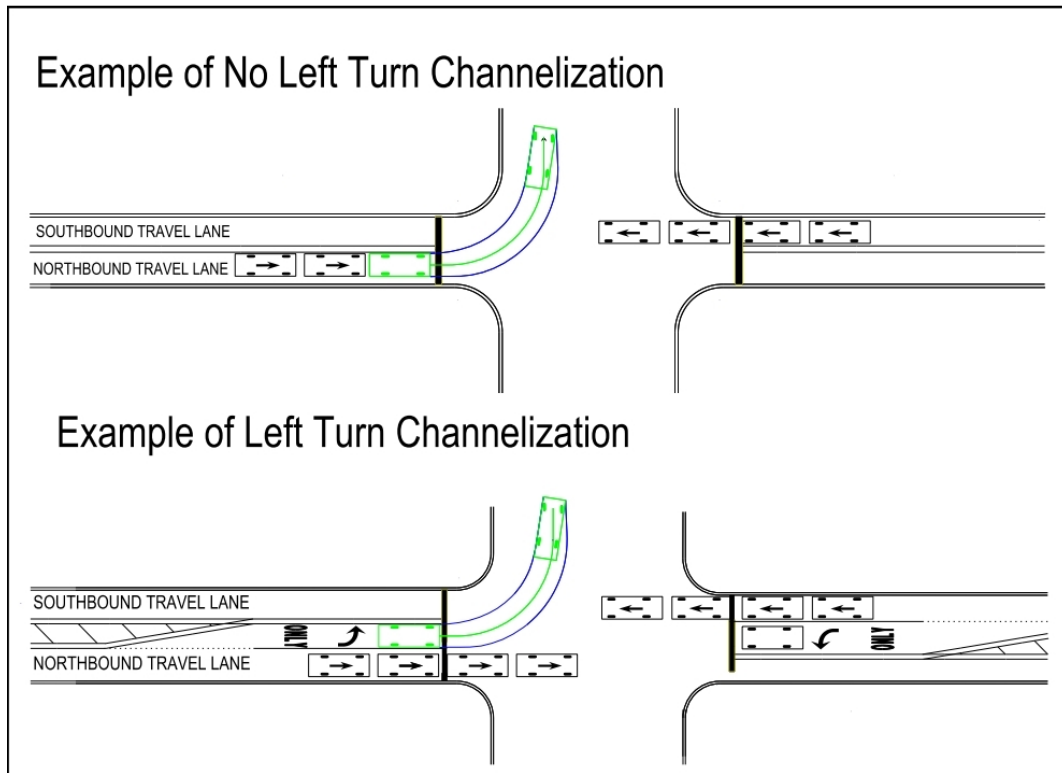


Figure 2-6: Left Turn Channelization

The communities along the corridor have tools in place, such as formal comprehensive plans and zoning restrictions, to allow for planned residential and commercial growth. IDOT has been and will continue to work with the local communities to select the most appropriate places for access points to IL 47. Currently, two major residential developments are planned within the project area; the Huntley Village Center North, located between Talamore Boulevard and Ackman Road, and the properties formerly known as Apple Creek Estates, located between Lucas Road and Hercules Road. A commercial center is planned for the intersection area near the East Leg of IL 176 and IL 47 intersection. Smaller commercial and residential developments are planned as well throughout the corridor. In sum, the generation of traffic by these planned future developments will compound the current conditions. The local communities are cooperating with IDOT's access permitting efforts that will help to maintain thoughtful growth.

IL 47 also serves travelers who use the route to travel to Wisconsin and the Lake Geneva area. The viability of current and future economic development along the IL 47 corridor is restricted under current traffic operations. A safe and efficient transportation system would better serve and maintain the viability of current land uses in and around the business areas along the route.

# Chapter 3 Alternatives

## 3.0 Alternatives

### 3.1 Introduction

The project is being developed following a Context Sensitive Solutions (CSS) approach. Based on the CSS approach and evaluations of the existing conditions, public input and consensus was obtained on various project elements and treatments evaluating their effectiveness for meeting the project Purpose and Need. From these project elements, the build alternatives were developed. Pedestrian and bicyclist accommodations would be provided regardless of which build alternative is selected as the preferred alternative as per “Complete Streets Law”. The type of accommodations would be dependent upon local cost participation.

### 3.2 No-Action Alternative

Throughout the development of this project, consideration is given to the No-Action Alternative as a base condition against which resulting effects of the preferred build alternative may be measured. The No-Action Alternative is the retention of the present roadway configuration and the performance of routine maintenance to keep the roadway operational.

Selection of the No-Action Alternative would result in:

- continued high crash potential resulting from a lack of roadway capacity and safe turning accommodations
- continued heavy congestion (reduced mobility)
- continued poor and unsafe access for the land uses that exist throughout the project area
- continued restriction on the viability of current and future economic development along the IL 47 corridor

If problems associated with traffic congestion and crash potential remain unaddressed, IL 47 from Reed Road to US 14 would continue to be at a high risk for crashes and congestion.

The No-Action Alternative does not meet the Purpose and Need of the project.

#### What is CSS?

CSS is an interdisciplinary approach that seeks effective, multi-modal transportation solutions by working with stakeholders to develop, build, and maintain cost-effective transportation facilities that fit into and reflect the project's surroundings - its "context." Through early, frequent, and meaningful communication with stakeholders, and a flexible and creative approach to design, the resulting projects should improve safety and mobility for the traveling public, while seeking to preserve and enhance the scenic, economic, historic, and natural qualities of the settings through which they pass.

#### What is a Build Alternative?

A Build Alternative is one that would include the design and construction of improvements needed to meet the purpose and need of the project.

#### What is a No-Action Alternative?

The No-Action Alternative is one that would occur if the proposed project was not constructed. This provides a baseline of conditions against which the build alternatives can be compared, allowing for a comparison of socioeconomic and environmental impacts, as well as the failure to meet the purpose and need of the project. The No-Action Alternative is defined as the transportation facility that is most likely to exist in the forecast year without the proposed improvements.

#### What is Complete Streets Law?

According to the National Complete Streets Coalition, complete streets are those designed and operated to enable safe access and travel for all users, including pedestrians, bicyclists, motorists, transit users, and travelers of all ages and abilities. Typical elements that make up a complete street include sidewalks, bicycle lanes, shared-use paths, designated bus lanes, safe and accessible transit stops, and frequent and safe crossings for pedestrians.

Each complete street has to be customized to the characteristics of the area it serves, but the common denominator is the balancing of safety and convenience for everyone using the road.

### 3.3 Congestion Management Process Alternative

A provision of the Code of Federal Regulations (CFR), specifically found in 23 CFR 450.320, places restrictions on the use of federal funds for projects in Transportation Management Areas designated as non-attainment for carbon monoxide and/or ozone. In these areas, federal funds may not be programmed for any project that would significantly increase capacity for single occupancy vehicles (SOVs) unless the project is evaluated through a Congestion Management Process (CMP). The CMP is required to provide an appropriate analysis of alternatives to the proposal for adding SOV capacity, including all reasonable congestion management strategies. If the analysis demonstrates that other alternatives and/or congestion management strategies cannot fully satisfy the need for additional capacity and that, therefore, additional SOV capacity is warranted, the CMP must identify all reasonable strategies that would maintain the functional integrity of the additional lanes. All identified reasonable strategies must be incorporated into the project.

Individual projects involving the addition of SOV capacity were evaluated, selected, and prioritized in the course of developing the Fiscal Year 2010-2015 Transportation Improvement Program (TIP) and the long range 2040 Regional Transportation Plan for Northeastern Illinois. The Northeastern Illinois CMP is documented via the following materials, that are available through the Chicago Metropolitan Agency for Planning (CMAP):

- *Congestion Management System for Northeastern Illinois*, Technical Supplement, October 1997
- *Congestion Management Handbook*, September, September 1998
- *Congestion Management System for Northeastern Illinois*, July 2006 Status Report

As indicated in the documents listed above, the development process for the TIP and Regional Transportation Plan constitutes the CMP for Northeastern Illinois. This process documents warranted projects for adding SOV capacity, as applicable, and also documents that regional and/or project specific alternatives such as Transportation Demand Management measures, High Occupancy Vehicle measures, Transit Capital Improvements, Congestion Pricing, Growth Management, and Incident Management would not obviate the need for adding SOV capacity. Planned projects resulting from the CMP are documented in the annual *Congestion Management Status* report, referenced above. For this project, it has been determined that stand-alone congestion management strategy alternatives would not satisfy the project Purpose and Need and, therefore, this undertaking is a warranted project for adding SOV capacity.

Reasonable project specific CMP strategies have been incorporated into this project to the extent practical. Specific strategies incorporated include the following:

- increased turn lane storage capacities
- traffic signal modernization
- consolidation of access points, streets, and driveways
- channelized intersections with left and right turn lanes
- barrier medians for access control
- right in / right out access control

As documented in the above information, this project results from the CMP for Northeastern Illinois as a warranted project for adding SOV capacity and all reasonable congestion management strategies have been incorporated into the project to sustain its effectiveness.

### **3.4 Build Alternatives**

The project elements, as derived from the CSS approach and stakeholder involvement process, were incorporated into a range of alternatives. Preliminary design variations of the build alternatives were carried forward and separated into three distinct roadway sections as follows:

#### Section 1: Reed Road to Rainsford Drive

- Match construction completed in fall of 2011

#### Section 2: Rainsford Drive to Hercules Road

- South Alternative 1: 50 Foot Median - Retain Existing Centerline
- South Alternative 2: 50 Foot Median - Shift Centerline 37 Feet East
- Revised South Alternative 1: 30 Foot Median – Retain Existing Centerline
- Revised South Alternative 2: 30 Foot Median – Shift Centerline 27 Feet East
- IL 47 at IL 176 Intersection Realignment Alternatives

#### Section 3: Hercules Road to US 14

- North Alternative 1: 22 Foot Median
- North Alternative 2: 18 Foot Median

Each of the build alternatives meets the project purpose and need as follows:

- Improve vehicle and pedestrian safety – Vehicle safety is improved by adding shoulders, center medians, turn lanes, and through lanes. Pedestrian and bicycle safety is improved by adding accommodations for sidewalks and shared use paths. Improvements to pedestrian and bicycle accommodations are contingent upon local agencies agreeing to paying their share of construction costs and agreeing to maintain the improvements after construction.
- Improve mobility/capacity - Vehicle mobility/capacity is improved by adding turn lanes and through lanes. Pedestrian and bicycle mobility is improved by adding accommodations for sidewalks and shared use paths.
- Facilitate planned economic growth – Planned economic growth is facilitated by the improvements to capacity and mobility allowing for efficient movement of goods, employees, and customers.

The build alternatives are described in the following sections.

### 3.4.1 Section 1 - Reed Road to Rainsford Drive

Section 1 is approximately ¼ mile in length with a posted speed of 45 mph and design speed of 50 mph. The southern terminus is located within a curve upon which Reed Road intersects IL 47 at an existing signalized intersection. Reed Road is a two lane, east-west roadway with left and right turn channelization on its approaches. The intersection currently operates at an overall LOS “C” in both the a.m. and p.m. peak hours. Under proposed 2040 conditions, the operations would improve to a LOS “B” in the a.m. peak hour and a LOS “C” in the p.m. peak hour.

This section, based on the preferred improvement identified from the IL 47 Phase I study from Kreuzer Road to Reed Road, would remain unchanged from the construction completed in the fall of 2011. The recently constructed roadway consists of two 12 foot lanes in each direction with curb and gutter, separated by a 22 foot barrier median.

### 3.4.2 Section 2 - Rainsford Road to Hercules Road

This section of IL 47 is 6.6 miles in length with a posted speed of 55 mph and design speed of 60 mph. The existing roadway consists of a 12 foot lane in each direction, with open drainage. The existing alignment is generally on tangent between Rainsford Road and IL 176 (East Leg), and again on tangent between IL 176 (West Leg) and Hercules Road. Between the two signalized intersections with IL 176, the existing alignment contains two successive curves separated by a 3,375 foot tangent section.

IL 47 intersects with a total of 10 side roads within Section 2, as listed below. The IL 176 intersections are signalized, while all other side roads are currently unsignalized and do not meet warrants for new signal installations. Currently, full access is allowed at each of the intersections.

- Talamore Boulevard
- Ackman Road
- Conley Road
- Foster/Union Road
- Hawthorn Way
- Ballard Road
- IL 176 (East Leg)
- Pleasant Valley Road
- IL 176 (West Leg)
- Lucas Road

Left turn lanes would be developed in advance of each of the intersections listed above. The existing spacing between IL 176 (East Leg) and Pleasant Valley Road is 590 feet. The proposed improvement realigns Pleasant Valley Road ¼ mile to the north of IL 176 (East Leg). IL 47 alternatives are described in more detail in following sections.



Under proposed conditions, residential and commercial driveways would be converted to right in / right out access by way of a non-traversable median. U-turn capability will be provided at the side road access points.

IL 47 intersects IL 176 in two locations, each consisting of a signalized T-intersection; the state highways share designation for approximately 0.9 miles. Both East and West Legs of IL 176 consist of one 12 foot departing lane, and two 12 foot approach lanes providing separate left and right turn lanes for vehicles turning from IL 176 to IL 47. The majority of crashes at the IL 176 intersections, 47.6% of the crashes at the East Leg intersection and 55.9% of the crashes at the West Leg intersection, are rear-end crashes reflecting a lack of channelization and capacity. At both IL 176 intersections, the proposed improvement along IL 47 would provide left and right turn lanes and an additional through lane in each direction. Improvements along IL 176 at both intersections will provide dual left turn lanes and free flow right turn lanes and acceleration lanes from IL 176 to IL 47, in order to accommodate the heavy turning movement. See [Figure 3-1](#) for existing conditions at the IL 47 at IL 176 intersection, and [Figure 3-2](#) for proposed conditions.

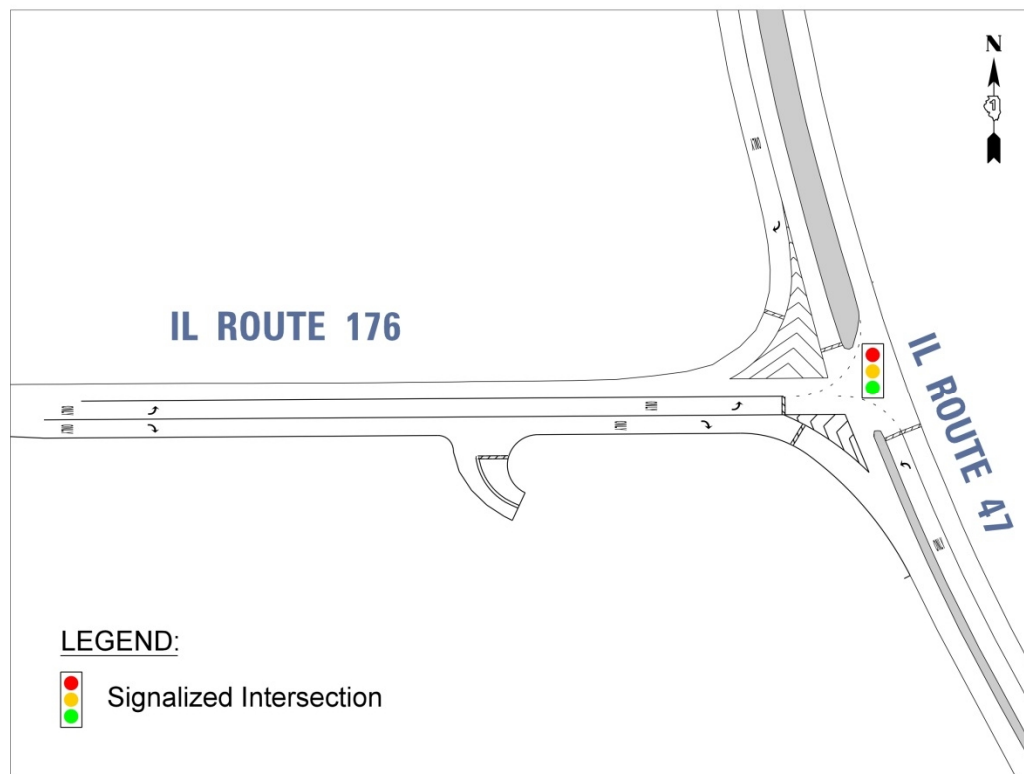
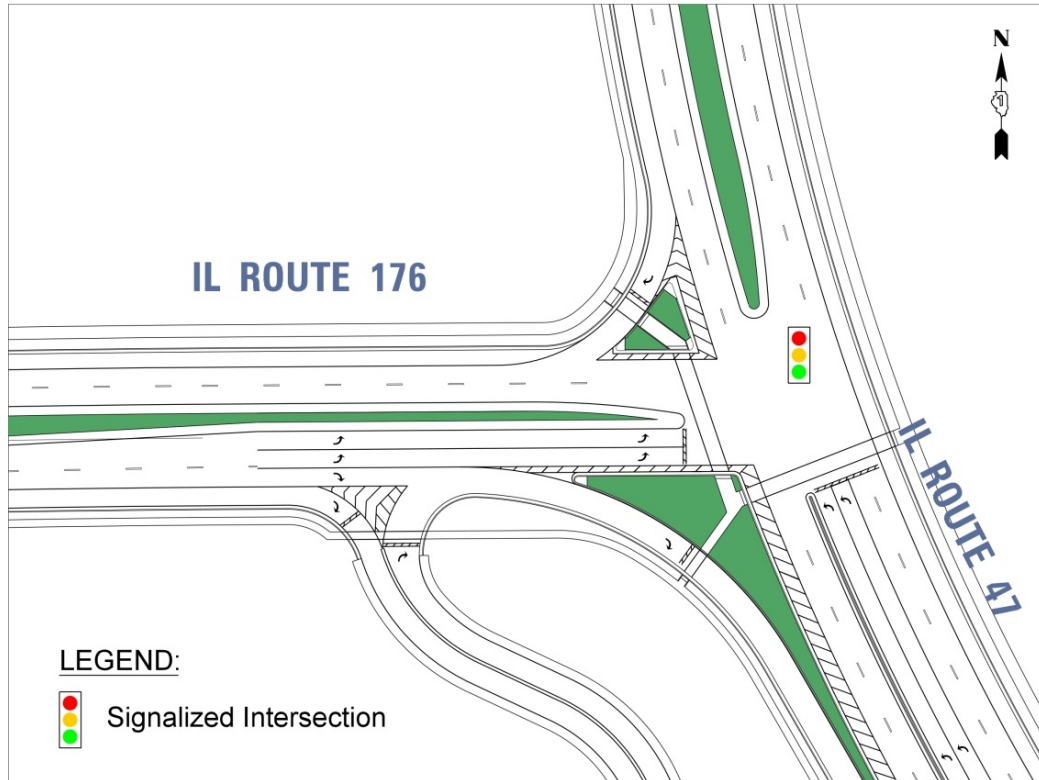
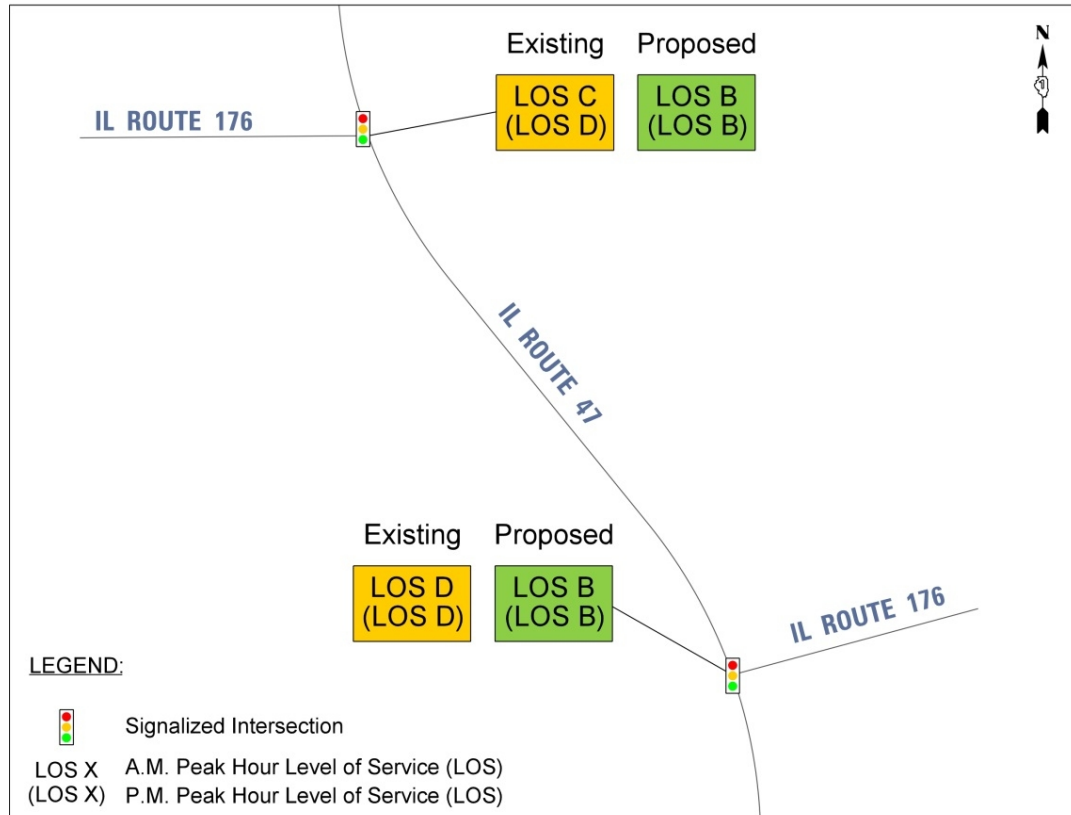


Figure 3-1: IL 47 at IL 176 - Existing Intersection



**Figure 3-2: IL 47 at IL 176 - Proposed Intersection**

The East Leg intersection of IL 176 that approaches and departs to the east currently operates at an overall LOS of “C” in the a.m. peak and a LOS “D” in the p.m. peak. The West Leg intersection that approaches and departs to the west currently operates at an overall LOS of “D” in both the a.m. and p.m. peak hours. The proposed improvement would improve the operations to a LOS “B” for both the a.m. and p.m. peak hours at both intersections, under projected 2040 traffic volumes. In general, improving intersection LOS by adding additional through lanes and adding channelization would reduce the crashes at the IL 176 split intersections. See [Figure 3-3](#) for existing and proposed Level of Service at these intersections.



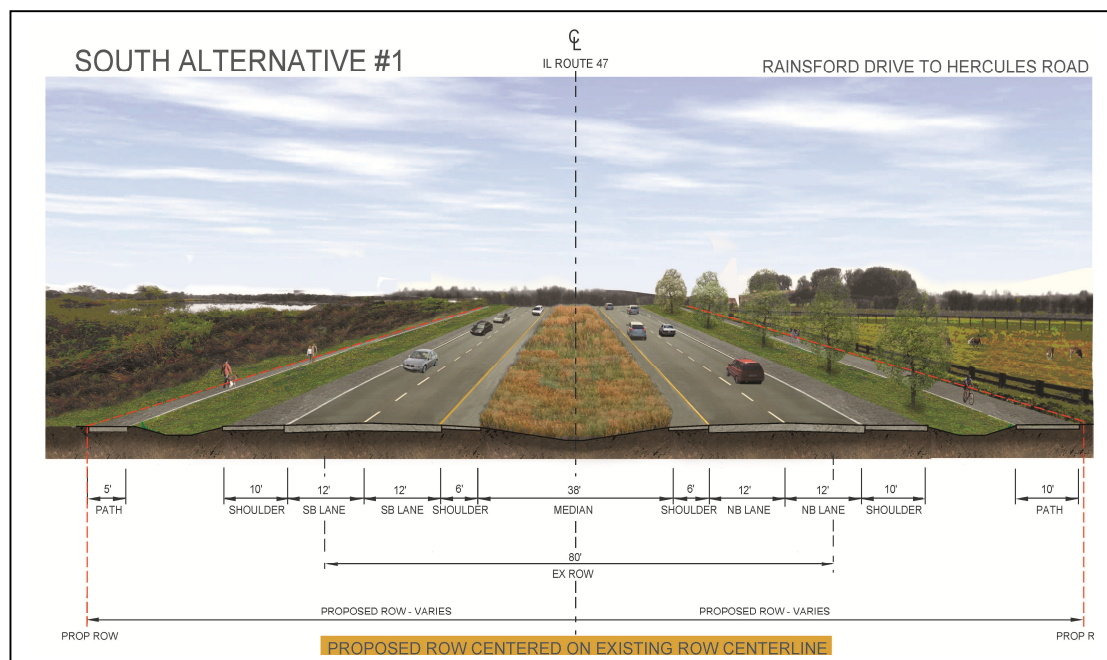
**Figure 3-3: IL 47 at IL 176 - Level of Service**

Consideration was given to eliminating the split intersection at IL 176. A total of eight concept level alternatives were developed for this intersection, six of which realigned the East and West Leg IL 176 intersections at IL 47. All six concept level alternatives that realigned the intersections had a lower LOS, higher wetland impacts, higher farm impacts, more stream crossings, increased adverse travel, higher construction costs, required more right of way, and resulted in more displacements as compared to the two concept level alternatives that retained the split intersection. Therefore, the split IL 176 intersection was retained and the concept level alternatives to eliminate the split were not carried forward. IL 176 intersection alternatives are described in more detail in *Section 3.4.2.5*.

### **3.4.2.1 Section 2 (South Alternative 1: 50 Foot Median - Retain Existing Centerline)**

This section of IL 47 is 6.6 miles in length with a posted speed of 55 mph and design speed of 60 mph. The proposed centerline of IL 47 matches the existing and is centered upon an 80 foot existing right of way. The proposed right of way required is generally 200 feet wide centered upon the existing centerline. Consistent with the IL 47 Strategic Regional Arterial Planning Study, two 12 foot lanes are proposed in each direction, with 10 foot wide paved outside shoulders and a depressed median, providing 50 feet of separation between the opposing

edges of pavement. The median includes six foot wide paved inside median shoulders and a four foot wide flat bottom ditch. Pedestrian and bicyclists would be accommodated on an eight foot wide shared use path on one side of the roadway and a five foot wide sidewalk on the other side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design. A swale is proposed between the edge of shoulder and the sidewalk/path. A four foot flat bottom ditch is proposed between the sidewalk/path and the right of way. See **Figure 3-4** for the proposed typical section.



**Figure 3-4: South Alternative 1**

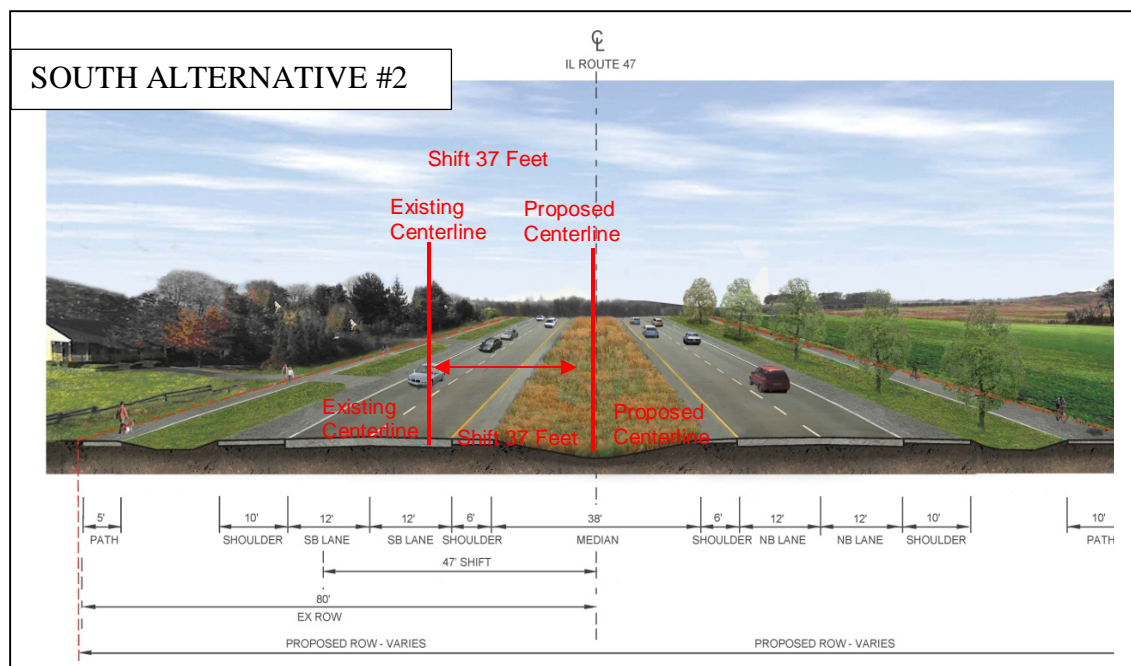
A total of five stream crossings are encountered within these limits, resulting in the need to replace an existing two span bridge structure (SN 056-0025) crossing the Kishwaukee River, located between Foster/Union Road and Hawthorn Way. The other four stream crossings are culverts and would be lengthened. South Alternative 1 results in 30.3 acres of transverse impacts to the 100 year floodplains associated with the stream crossings, and infringes on 31 wetlands, resulting in 18.3 acres of impacts.

The necessary right of way acquisition includes eight residential displacements and no commercial displacements, requiring an additional 89 acres of right of way.

South Alternative 1 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was not carried forward due to wetland impacts and the eight residential displacements.

**3.4.2.2 Section 2 (South Alternative 2: 50 Foot Median - Shift Roadway Centerline 37 Feet East)**

This build alternative retains the same typical section and operational characteristics as described in South Alternative 1; however, the roadway centerline shifts 37 feet to the east by way of a reverse curve. The roadway shift occurs between Ackman Road and IL 176 (East Leg) and minimizes the impacts to the residential properties on the west side of IL 47 between Hawthorne Way and IL 176. From Rainsford Drive to Ackman Road and from IL 176 (East Leg) to Hercules Road the roadway remains on the existing centerline. See **Figure 3-5** for the proposed typical section.



**Figure 3-5: South Alternative 2**

The wetland and floodplain impacts for both South Alternative 1 and South Alternative 2 are similar. As described above for South Alternative 1, a total of five stream crossings are encountered within these limits, resulting in the need to replace an existing two span bridge structure (SN 056-0025) crossing the Kishwaukee River, located between Foster/Union Road and Hawthorn Way. The other four stream crossings are culverts and would be lengthened. South Alternative 2 results in 30.3 acres of transverse impacts to the 100 year floodplains associated with the stream crossings, and infringes on 31 wetlands, resulting in 18.3 acres of impacts.

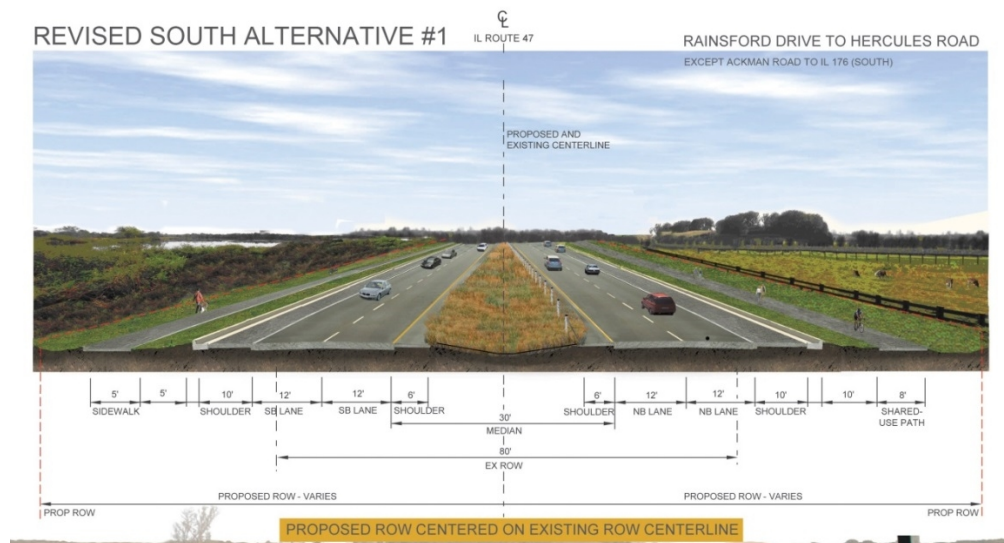
South Alternative 2 however, minimizes the necessary displacements to one residential displacement and no commercial displacements. Although no commercial displacements are anticipated, the proposed improvement may impact the parking lot and putting green number 5 of the Craig Woods Executive Golf

Course and the parking lot of Crystal Woods Golf Course (both private golf courses).

South Alternative 2 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was not carried forward due to wetland impacts.

### 3.4.2.3 Section 2 (Revised South Alternative 1: 30 Foot Median - Retain Existing Centerline)

This build alternative is 6.6 miles in length and has similar physical and operational traits as described for South Alternative 1. However, to minimize impacts the median has been reduced to 30 foot wide and curb and gutter would be placed at the outside edge of the outside shoulders. The proposed centerline of IL 47 matches the existing and is centered upon an 80 foot existing right of way. The proposed right of way required is generally 170 feet wide, centered upon the existing centerline. Pedestrians and bicyclists would be accommodated on an eight foot wide shared use path on one side of the roadway and a five foot wide sidewalk on the other side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design. A four foot flat bottom ditch is proposed between the sidewalk/path and the right of way. See [Figure 3-6](#) for the proposed typical section.



**Figure 3-6: Revised South Alternative 1**

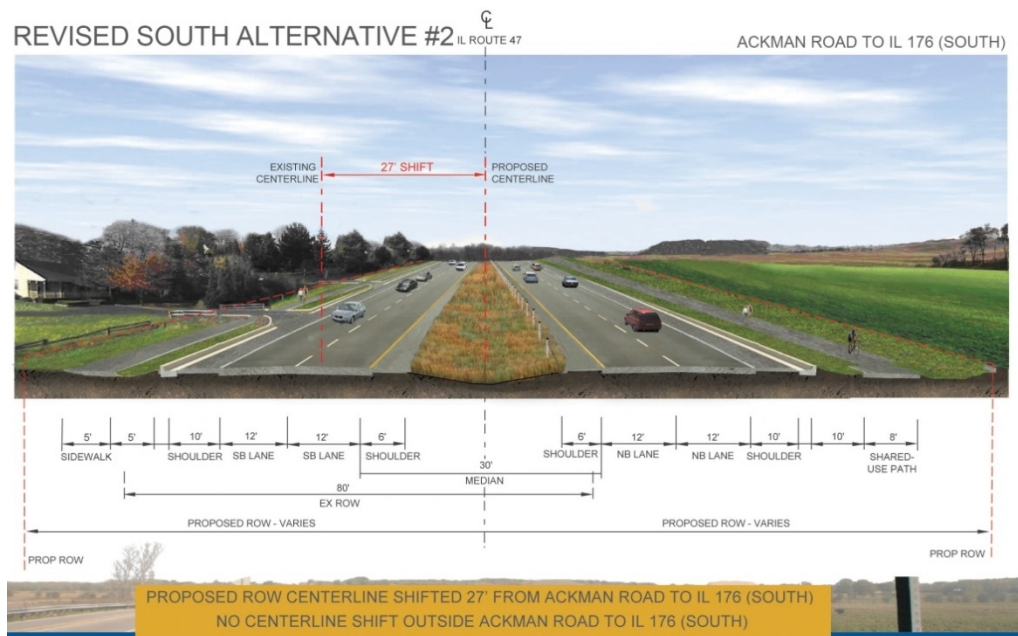
A total of five stream crossings are encountered within these limits, resulting in the need to replace an existing two span bridge structure (SN 056-0025) crossing the Kishwaukee River, located between Foster/Union Road and Hawthorn Way. The other four stream crossings are culverts, which would be enlarged and lengthened. With this reduced cross section, the amount of impacts would be minimized to 21.1 acres of transverse impacts to the 100 year floodplains

associated with the stream crossings, and infringement on 31 wetlands resulting in 12.7 acres of wetland impacts. Therefore, the reduced cross section would result in minimizing impacts by 9.2 acres of transverse impacts to the 100 year floodplains, and 5.6 acres of wetland impacts. The necessary right of way acquisition includes eight residential displacements and no commercial displacements.

Revised South Alternative 1 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was not carried forward due to the eight residential displacements.

**3.4.2.4 Section 2 (Revised South Alternative 2: 30 Foot Median - Shift Roadway Centerline 27 Feet East)**

This build alternative retains the same typical section and operational characteristics as described in Revised South Alternative 1; however, the roadway centerline shifts 27 feet to the east by way of a reverse curve. The roadway shift occurs between Ackman Road and IL 176 (East Leg) and minimizes the impact to the residential properties on the west side of IL 47 between Hawthorne Way and IL 176. From Rainsford Drive to Ackman Road and from IL 176 (West Leg) to Hercules Road, the roadway remains on the existing centerline. See Figure 3-7 for the proposed typical section.



**Figure 3-7: Revised South Alternative 2**

The wetland and floodplain impacts for both Revised South Alternative 1 and Revised South Alternative 2 are similar. As described above for Revised South Alternative 1, a total of five stream crossings are encountered within these limits,

resulting in the need to replace an existing two span bridge structure (SN 056-0025) crossing the Kishwaukee River, located between Foster/Union Road and Hawthorn Way. The other four stream crossings are culverts and would be enlarged and lengthened. Revised South Alternative 2 results in 21.1 acres of transverse impacts to the 100 year floodplains associated with the stream crossings, and infringement on 31 wetlands, resulting in 12.7 acres of wetland impacts.

Revised South Alternative 2 however, minimizes the necessary displacements to one residential displacement and no commercial displacements. Although no commercial displacements are anticipated, the proposed improvement may impact the parking lot and putting green number 5 of the Craig Woods Executive Golf Course and the parking lot of Crystal Woods Golf Course (both private golf courses).

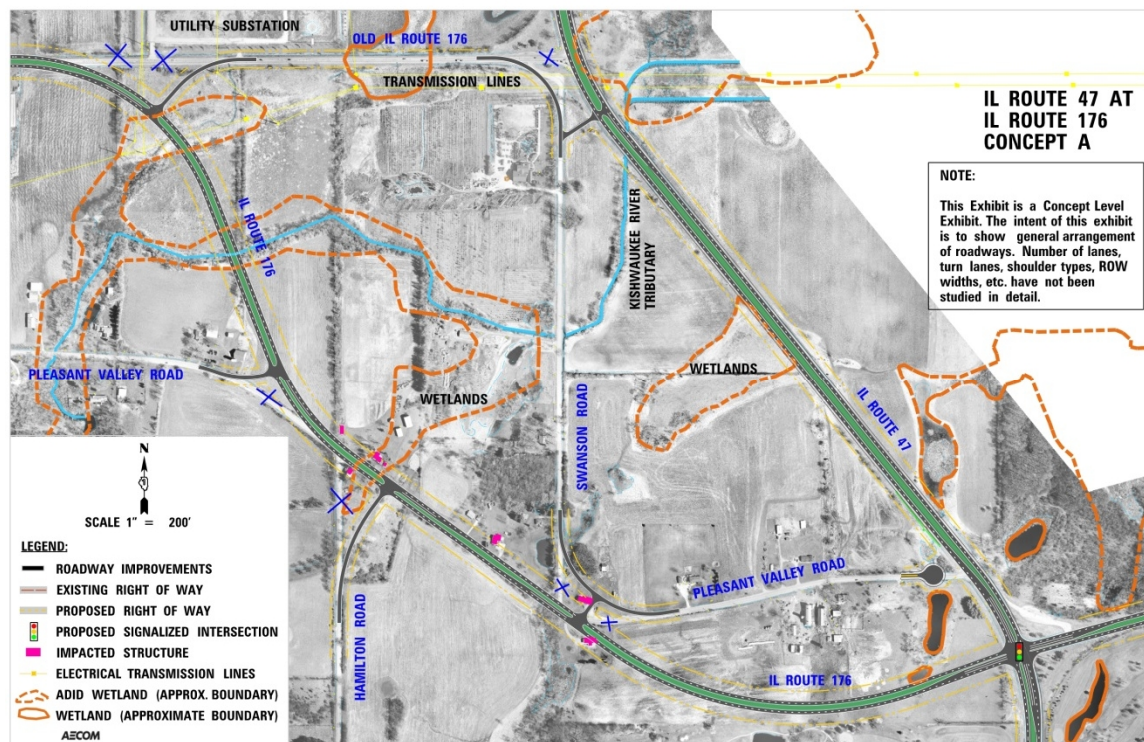
Revised South Alternative 2 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was carried forward since it had the lowest wetland impacts and least number of displacements.

### **3.4.2.5 Section 2 (IL 47 at IL 176 Intersection Realignment Alternatives)**

Consideration was given to realigning the IL 47 at the IL 176 split intersections. A total of eight concept level alternatives were developed for these intersections. All alternatives would improve IL 176 to include two 12 foot lanes in each direction, a depressed median providing 50 feet of separation between the opposing edges of pavement, six foot paved inside shoulders, 10 foot paved outside shoulders, and left and right turns between IL 176 and IL 47. All alternatives would require similar improvements to IL 47 as described in the previous Sections. Alternatives A, B, C, and D would realign the West Leg of IL 176 to connect to the existing East Leg of IL 176. Alternative E would realign the East Leg of IL 176 to connect with the existing West Leg of IL 176. Alternative F would realign both the East and West Legs of IL 176 to connect halfway between the existing East and West Legs of IL 176. Alternatives G and H would retain the existing split intersections.



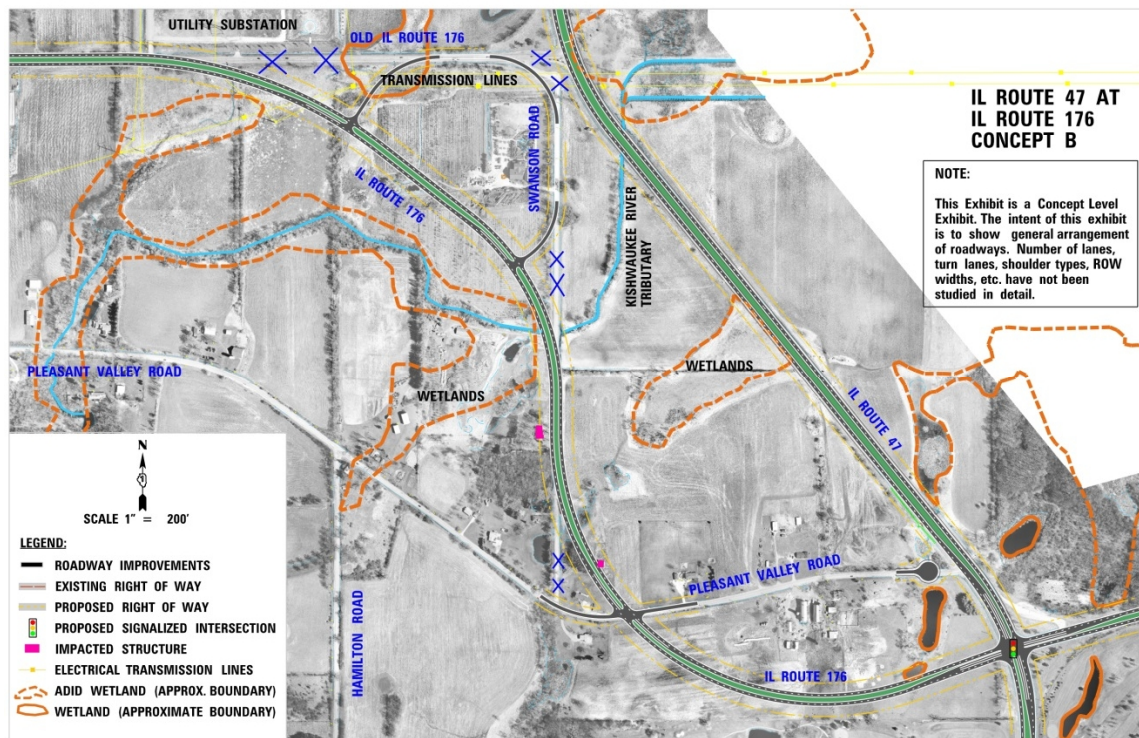
Alternative A, see **Figure 3-8**, would commence at the existing intersection of the East Leg of IL 176 at IL 47 and travel west and north to connect into the West Leg of IL 176 east of Dean Street. The majority of the roadway would be on new alignment. The alternative would require 63.36 acres of new right of way and displace six residences. It would also impact 5.97 acres of wetlands and 0.46 acres of Advanced Identification (ADID)<sup>1</sup> wetlands while crossing three streams. The alternative would add 1.8 miles of adverse travel for those traveling between northbound IL 47 and west bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See **Table 3-1** for a summary of impacts.



**Figure 3-8: IL 47 at IL 176 Intersection Alternative A**

<sup>1</sup> ADID wetlands are those wetlands identified by the U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service as being important due to their high habitat value, or the importance of the functions they performed (i.e., stormwater storage, wildlife habitat provided, water quality benefits, etc.).

Alternative B, see **Figure 3-9**, would commence at the existing intersection of the East Leg of IL 176 at IL 47, and travel west and north to connect back into the West Leg of IL 176 east of Dean Street. The majority of the roadway would be on new alignment. The alternative would require 60.97 acres of new right of way and displace three residences. It would also impact 4.13 acres of wetlands and 0.46 acres of ADID wetlands while crossing two streams. The alternative would add 1.8 miles of adverse travel for those traveling between northbound IL 47 and west bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See **Table 3-1** for a summary of impacts.



**Figure 3-9: IL 47 at IL 176 Intersection Alternative B**

Alternative C, see [Figure 3-10](#), would commence at the existing intersection of the East Leg of IL 176 at IL 47, and travel west and north to connect back into the West Leg of IL 176 west of Swanson Road. The majority of the roadway would follow Swanson Road, with additional sections on new alignment. The alternative would require 56.56 acres of new right of way and displace three residences and one business. It would also impact 1.38 acres of wetlands and 1.38 acres of ADID wetlands while crossing two streams. The alternative would add 1.8 miles of adverse travel for those traveling between northbound IL 47 and west bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See [Table 3-1](#) for a summary of impacts.

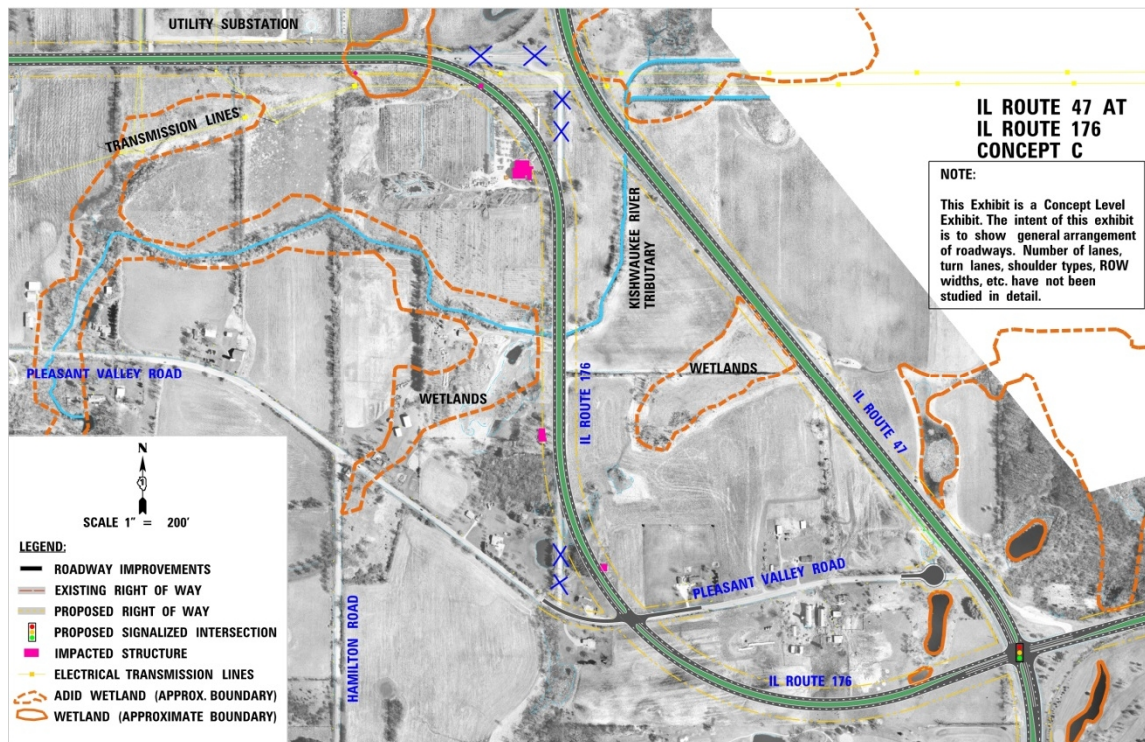


Figure 3-10: IL 47 at IL 176 Intersection Alternative C

Alternative D, see [Figure 3-11](#), would commence at the existing intersection of the East Leg of IL 176 at IL 47, and travel west and north to connect back into the West Leg of IL 176 east of Dean Street. The majority of the roadway would be on new alignment. The alternative would require 64.28 acres of new right of way and displace five residences. It would also impact 7.35 acres of wetlands and 0.46 acres of ADID wetlands while crossing four streams. The alternative would add 1.8 miles of adverse travel for those traveling between northbound IL 47 and west bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See [Table 3-1](#) for a summary of impacts.

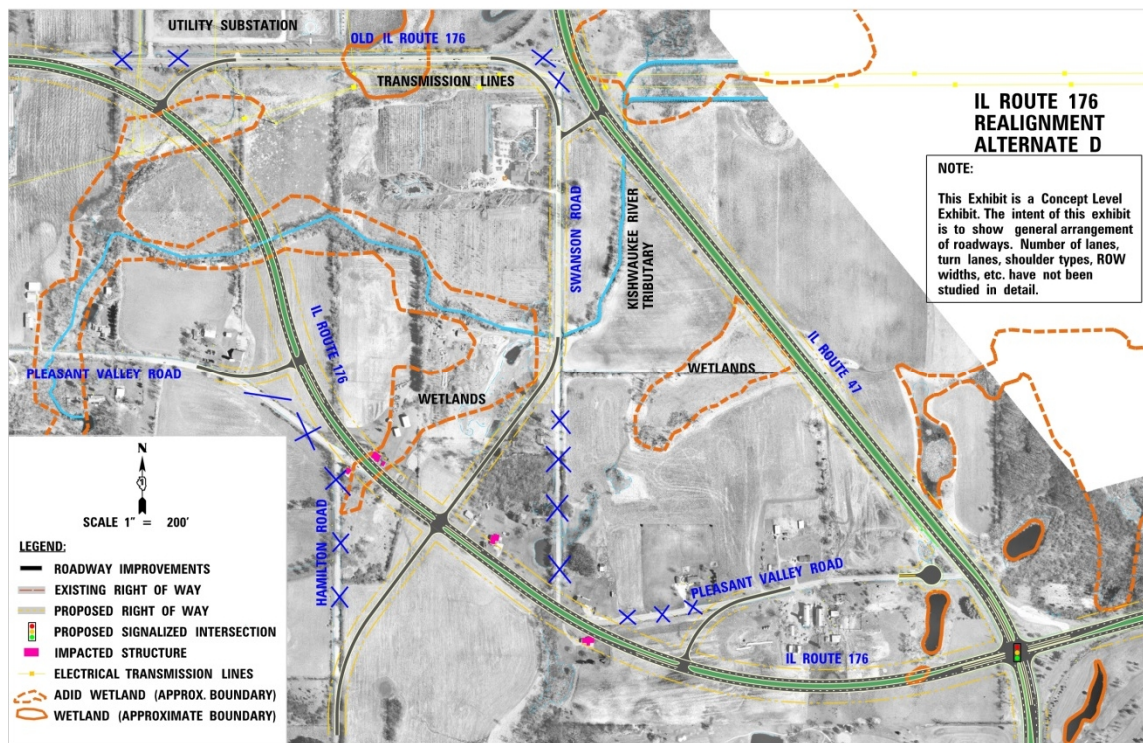


Figure 3-11: IL 47 at IL 176 Intersection Alternative D

Alternative E, see [Figure 3-12](#), would commence at the existing intersection of the West Leg of IL 176 at IL 47, and travel east and south to connect back into the East Leg of IL 176, approximately ½ mile east of IL 47. The majority of the roadway would be on new alignment. This alternative would require 55.83 acres of new right of way and displace one business. It would also impact 11.48 acres of wetlands while crossing two streams. The alternative would add 1.8 miles of adverse travel for those traveling between northbound IL 47 and east bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See [Table 3-1](#) for a summary of impacts.

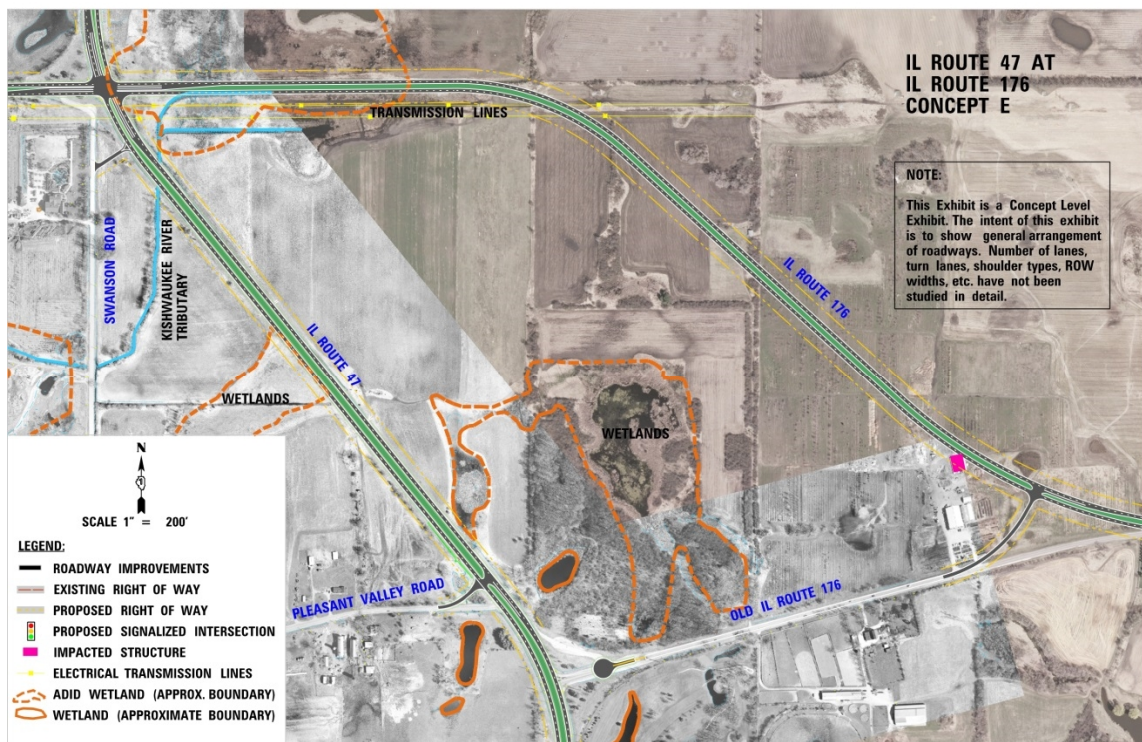


Figure 3-12: IL 47 at IL 176 Intersection Alternative E

Alternative F, see [Figure 3-13](#), would commence from ½ mile west of IL 47 on the West Leg of IL 176, and travel east and south to connect into the East Leg of IL 176, approximately ½ mile east of IL 47. It would cross IL 47 approximately halfway between the existing split IL 176 intersections. The majority of the roadway would be on new alignment. The alternative would require 69.6 acres of new right of way and displace one residence and one business. It would also impact 6.43 acres of wetlands and 0.46 acres of ADID wetlands while crossing three streams. The alternative would add 0.9 miles of adverse travel for those traveling between northbound IL 47 and east bound IL 176. The intersection would operate at a LOS “C”. This alternative meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth, however it was not selected to be further developed since it had a lower LOS, higher wetland impacts, more stream crossings, increases adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to retaining the split intersection. See [Table 3-1](#) for a summary of impacts.

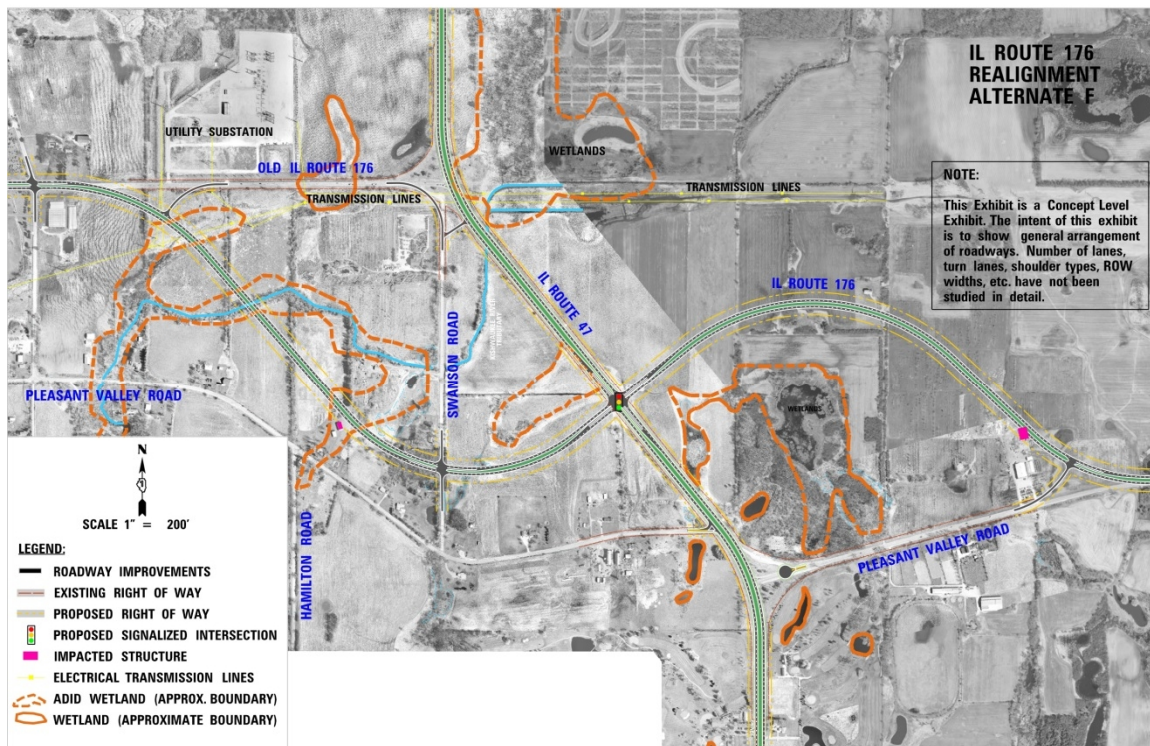


Figure 3-13: IL 47 at IL 176 Intersection Alternative F

Alternative G, see [Figure 3-14](#), would retain the existing split IL 176 intersections with IL 47. This alternative would utilize conventional intersection geometrics. The alternative would require 19.10 acres of new right of way and would not displace any residence or business. It would impact 1.38 acres of wetlands and 0.46 acres of ADID wetlands while crossing one stream. The alternative would not have any adverse travel for those traveling between IL 47 and IL 176. The intersection would operate at a LOS “B”. This alternative was selected to be further developed since it meets the Purpose and Need and has a higher LOS, lower wetland impacts, fewer stream crossings, no adverse travel, lower construction costs, requires less right of way, and results in fewer displacements as compared to removing the split intersection. See [Table 3-1](#) for a summary of impacts.

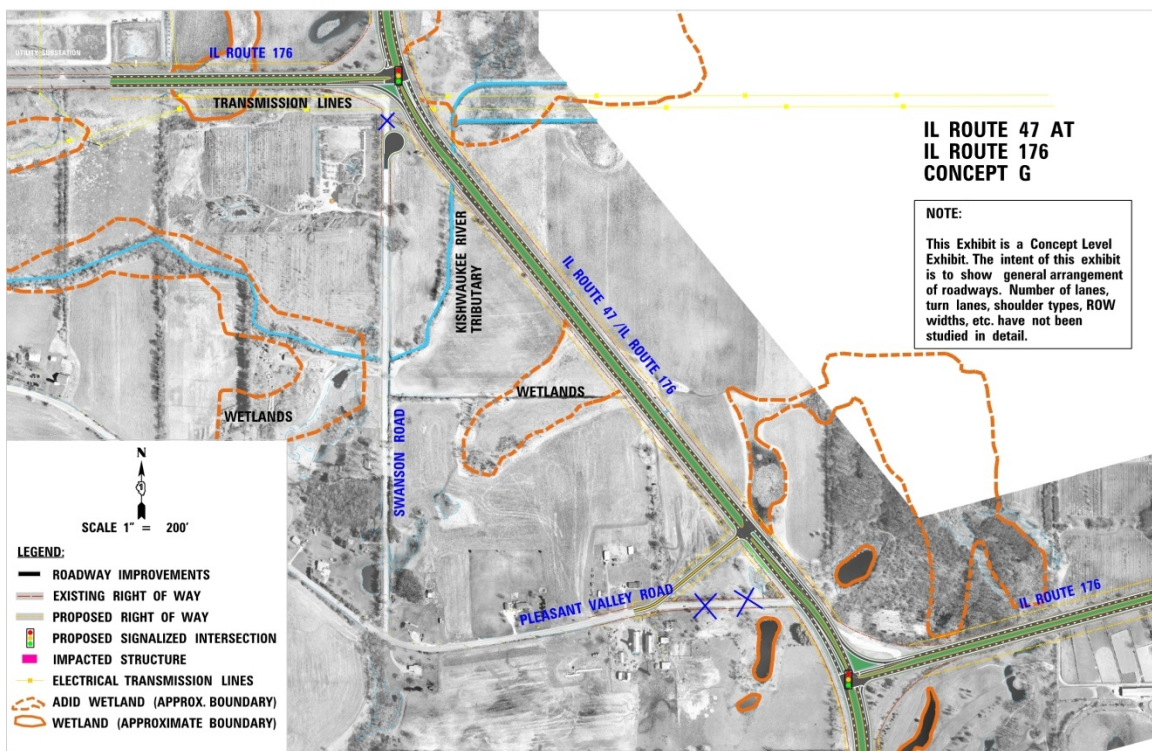


Figure 3-14: IL 47 at IL 176 Intersection Alternative G

Alternative H, see [Figure 3-15](#), is similar to Alternate G however it utilizes roundabouts in place of conventional intersections for the split intersections of IL 47 with IL 176. This alternative would require 21.40 acres of new right of way and would not displace any residence or business. It would also impact 1.38 acres of wetlands and 1.03 acres of ADID wetlands while crossing one stream. The alternative would not have any adverse travel for those traveling between IL 47 and IL 176. The intersection would operate at a LOS “C”. This alternative has higher LOS, less wetland impacts, fewer stream crossings, no adverse travel, lower construction costs, requires less right of way, and results in fewer displacements as compared to removing the split intersection. It was not chosen to be developed further as it had a lower LOS, higher wetland impacts, higher construction costs, and requires more right of way than the traditional intersection (Alternative G). See [Table 3-1](#) for a summary of impacts.

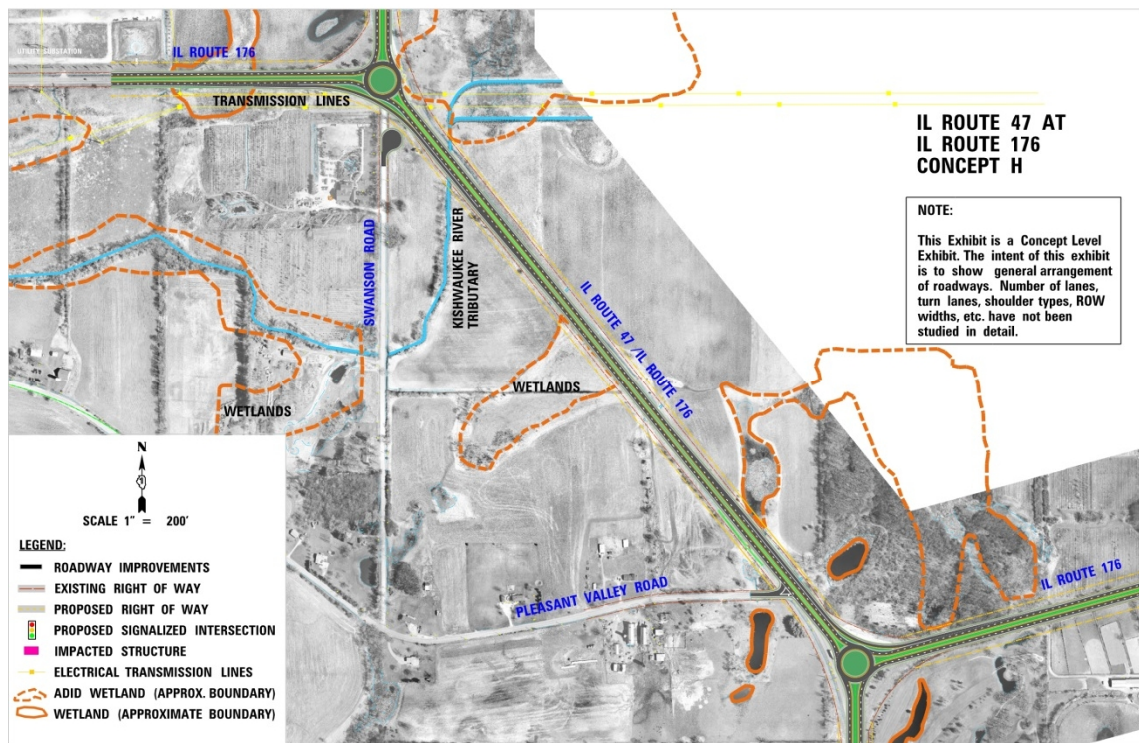


Figure 3-15: IL 47 at IL 176 Intersection Alternative H



A preliminary evaluation of each concept level alternatives for Section 2 was performed to determine cost, impacts, and benefits. The results are summarized in the **Table 3-1** below.

**Table 3-1: IL Route 47 at IL 176 Intersection Alternative Evaluation**

Alternate	Adverse Travel (miles)	Construction Cost (Millions)	Wetlands (acres)	ADID Wetlands (acres)	Displacements		Additional ROW	Stream Crossings	Level of Service (LOS)
					Residence	Business			
A	1.8	\$57.09	5.97	0.46	6	0	63.36	3	C
B	1.8	\$54.75	4.13	0.46	3	0	60.97	2	C
C	1.8	\$50.77	1.38	1.38	3	1	56.56	2	C
D	1.8	\$58.06	7.35	0.46	5	0	64.28	4	C
E	1.8	\$51.51	11.48	0	0	1	55.83	2	C
F	0.9	\$60.37	6.43	0	1	1	69.6	3	C
G	0	\$23.83	1.38	0.46	0	0	19.1	1	B
H	0	\$24.23	1.38	1.03	0	0	21.4	1	C

As shown in the above table, all six concept level alternatives that eliminated the split intersection (Alternative A, B, C, D, E, and F) and the concept level alternative that utilized roundabouts (Alternative H) had a lower LOS, higher wetland impacts, more stream crossings, increases in adverse travel, higher construction costs, requires more right of way, and results in more displacements as compared to the concept level alternative that retains the traditional split intersection (Alternative G). Therefore, concept level Alternative G, which retains the traditional split IL 176 intersections, was chosen to be carried forward while the concept level Alternatives A, B, C, D, E, and F, which eliminate the split, and Alternative H which utilized a roundabout, were not carried forward.

### 3.4.3 Section 3 (Hercules Road)

North of Hercules Road, the posted speed is 40 mph and design speed lowers to 45 mph as the roadway transitions to an urban section, containing many closely spaced access points with curb and gutter. This section of IL 47 is 0.9 miles in length. The northern terminus is located at Davis Road south of US 14, at which IL 47 intersects at a signalized intersection. US 14 is a four lane east-west Strategic Route Arterial with left and right turn lanes on both legs of the intersection. The intersection currently operates at

an overall LOS of “D” in both the a.m. and p.m. peak hours. Similar operations are expected under this alternative within this section.

The existing alignment is generally on tangent between Hercules Road and US 14, intersecting with the four side roads listed below. Each of the side roads are currently unsignalized and do not meet warrants for new signal installations. Currently, full access is allowed at each of the intersections.

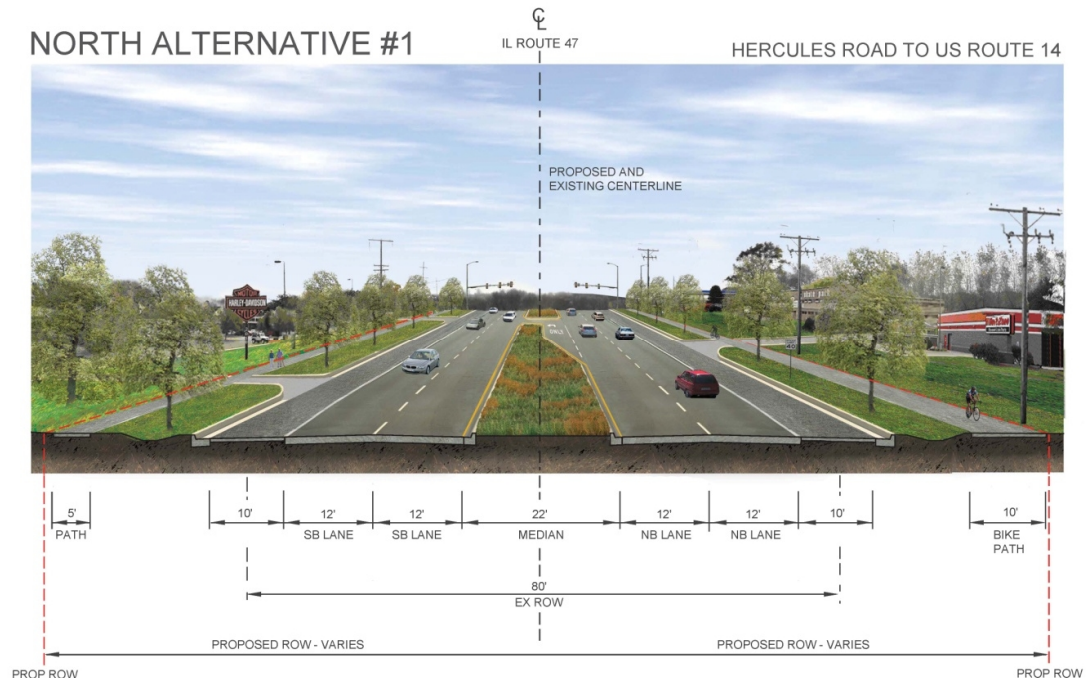
- Hercules Road
- Novean Parkway
- Cobblestone Way / Dieckman Street
- Davis Road (US 14 Frontage Road)

Left turn lanes would be developed in advance of each of the unsignalized intersections with the exception of Dieckman Street. The existing spacing between the Cobblestone Way and Dieckman Street intersection is 270 feet. The proposed improvement will provide a left turn lane at Cobblestone Way but Dieckman Street will become right in / right out.

Curb cut access to commercial properties would be maintained along the route. Under proposed conditions, driveways would be converted to right in / right out access by way of the non-traversable median. U-turn capability would be provided at the side road access points.

### **3.4.3.1 Section 3 (North Alternative 1: 22 Foot Median)**

This alternative consists of two 12 foot lanes in each direction, separated by a 22 foot barrier median. A 10 foot paved shoulder is proposed adjacent to the travel lanes. Outside of the shoulder, curb and gutter would be provided. Pedestrians and bicyclists would be accommodated on an eight foot wide shared use path on one side of the roadway and a five foot wide sidewalk on the other side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design. The proposed centerline of IL 47 matches existing and is centered upon an 80 foot existing right of way. The existing right of way widens to 120 feet between Cobblestone Way and US 14. The proposed right of way required is generally 140 feet wide centered upon the existing centerline, impacting several of the existing parking lots along IL 47. See [Figure 3-16](#) for the proposed typical section.



**Figure 3-16: North Alternative 1**

A total of one stream crossing is encountered within these limits, resulting in the need to realign the flow line of the Kishwaukee River, just south of Cobblestone Way. North Alternative 1 results in 3.2 acres of transverse impacts to the 100 year floodplains associated with the Kishwaukee River crossing and infringes on four wetlands, resulting in 2.7 acres of impact.

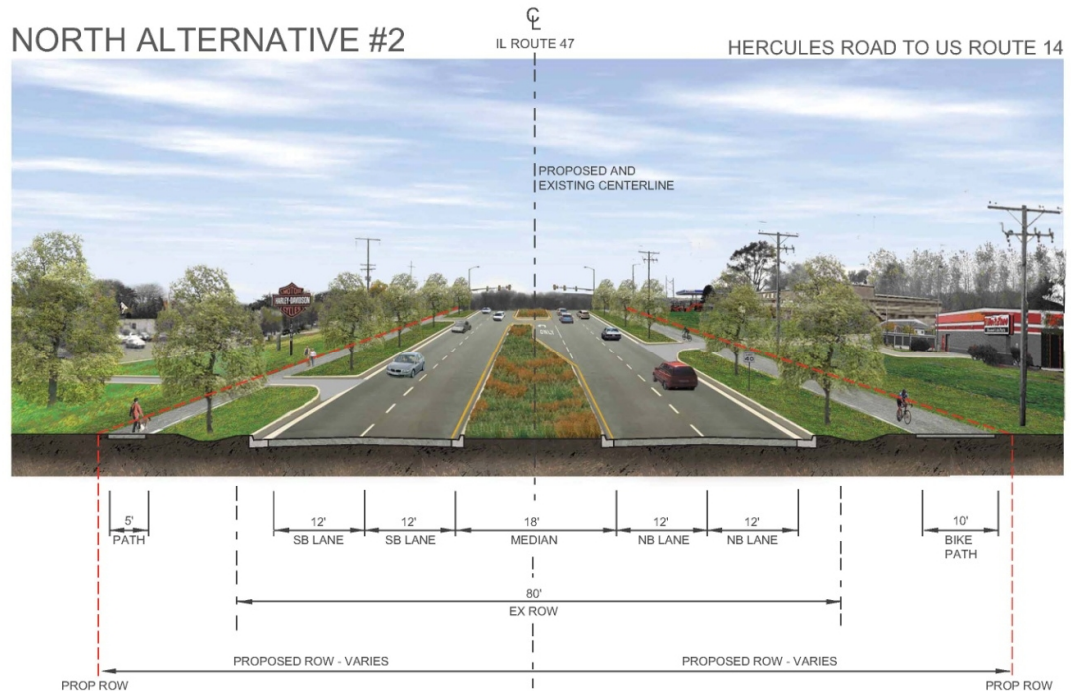
Right of way acquisition would be required and would impact the parking lots of the commercial properties north of Cobblestone Way. North Alternative 1 does not require any residential or commercial displacements.

North Alternative 1 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was not carried forward due to high impacts to businesses' parking lots.

**3.4.3.2 Section 3 (North Alternative 2: 18 Foot Median)**

This alternative proposes two 12 foot lanes in each direction with curb and gutter, similar to the North Alternative 1. The barrier median however is reduced from 22 feet to 18 feet and no shoulders are provided. Bicyclist accommodations are proposed by way of an eight foot shared use path along the east side of the roadway at the right of way line and a five foot sidewalk is proposed along the west right of way line. Shared use paths and sidewalks would require local agency commitment before being included in the final design. The roadway centerline would remain centered along the existing right of way. The proposed right of way for this alternative is reduced to 115 feet and generally does not impact the

existing parking lots within this section of IL 47. See [Figure 3-17](#) for the proposed typical section.



**Figure 3-17: North Alternative 2**

Similar to North Alternative 1, North Alternative 2 crosses the Kishwaukee River. This alternative results in 2.4 acres of transverse impacts to the 100-year floodplains associated with the stream crossing and infringes on four wetlands, resulting in 1.7 acres of impact.

Right of way acquisition is required but would not impact the parking lots of the commercial properties north of Cobblestone Way. North Alternative 2 does not require any residential or commercial displacements.

North Alternative 2 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It was carried forward since it had the lowest impacts to businesses.

### 3.5 Conclusion

#### 3.5.1 Section 1 - Reed Road to Rainsford Drive

Improvements to Section 1, Reed Road to Rainsford Drive, would remain unchanged from the construction completed in the fall of 2011. The improvements consist of 24 feet of pavement in each direction (two 12 foot lanes), separated by a 22 foot barrier median. Curb and gutter is proposed adjacent to the outside travel lane.

The above improvements to Section 1 meet the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth and would not be further modified.

**3.5.2 Section 2 – Rainsford Drive to Hercules Road**

Five alternatives, including the No Action, were developed for Section 2, Rainsford Road to Hercules Road. A preliminary impact evaluation was performed for each alternative base on an assumed right-of-way width. The results are summarized in **Table 3-2** below.

**Table 3-2: IL 47 South Alternative Evaluation**

Topic		South Alternatives <sup>1</sup>				
		No-Build	Alternative 1	Alternative 2	Revised Alternative 1	Revised Alternative 2 <sup>2</sup>
Environmental	<b>Displacements</b>					
	Residential	0	8	1	8	1
	Commercial	0	0	0	0	0
	<b>Emergency Services Impacted</b>	None	None	None	None	None
	<b>Wetlands</b>					
	Acres	0	18.3	18.3	12.7	12.7
	Number	0	31	31	31	31
	<b>Floodplains</b>					
	Acres	0	30.3	30.3	21.1	21.1
	Number	0	4	4	4	4
	<b>Cultural</b>					
	Archaeological or Pre-Historic Historic Structures	None None	None None	None None	None None	None None
<b>T &amp; E Species</b>	None	None	None	None	None	
<b>Natural Areas</b>						
Nature Preserves	None	None	None	None	None	
<b>Section 4(f)</b>	None	None	None	None	None	
Purpose & Need	<b>Improve Safety</b>	No	Yes	Yes	Yes	Yes
	<b>Improve Mobility/Capacity</b>	No	Yes	Yes	Yes	Yes
	<b>Facilitate Growth</b>	No	Yes	Yes	Yes	Yes

<sup>1</sup> Impacts Based On Assumed Row, Preliminary Estimates Only

<sup>2</sup> Preferred Alternative

As shown in the above table, Revised South Alternative 2 has the lowest environmental impacts and least displacements. Based on this evaluation, Revised South Alternative 2 is recommended as the preferred alternative for Section 2, Rainsford Road to Hercules Road. The improvements consist of two 12 foot lanes in each direction, 10 foot wide paved outside shoulders with a curb and gutter at the outside edge of shoulder, and a depressed median providing 30 feet of separation between the opposing edges of pavement. The depressed median includes six foot wide paved inside shoulders and a two foot wide flat bottom ditch. Pedestrian and bicyclists would be accommodated on an eight foot wide shared use path on one side of the roadway and a five foot wide sidewalk on the other side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design. The eight foot wide shared use path was chosen over the traditional 10 foot wide path in order to minimize impacts to wetlands. A four foot flat bottom ditch is proposed between the sidewalk/path and the right of way. The roadway centerline is shifted 27 feet to the east by way of a reverse curve between Ackman Road and IL Route 176 (East Leg), to minimize the impact to the residential properties on the west side of IL 47 between Hawthorne Way and IL 176. From Rainsford Drive to Ackman Road and from IL 176 (East Leg) to Hercules Road, the roadway remains on the existing centerline.

Revised South Alternative 2 meets the Project Purpose and Need to improve this route to address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It is recommended as the preferred alternative since it has the lowest wetland impacts and least number of displacements. Revised South Alternative 2 will be further refined to develop Best Management Practices (BMPs) to minimize impacts. BMPs that will be investigated include collecting and slowing runoff from the roadway, runoff treatments at wetlands, and native plant usage to provide a filtering media for runoff.

### **3.5.3 Section 3 – Hercules Road to US 14**

Three alternatives, including the No Action, were developed for Section 3, Hercules Road to US 14. A preliminary impact evaluation was performed for each alternative based on assumed right-of-way width. The results are summarized in [Table 3-3](#).

As shown in the table, both Build North Alternatives have similar impacts. The only difference is North Alternative 1 impacts 2.7 acres of wetland and 3.2 acres of floodplain, while North Alternative 2 only impacts 1.7 acres of wetlands and 2.4 acres of floodplain. Based on this evaluation, North Alternative 2 is chosen as the preferred alternative for Section 3, Hercules Road to US 14. The improvements consist of two 12 foot lanes in each direction, separated by an 18 foot barrier median. Curb and gutter will be provided at both the median and outside edges of pavement. Pedestrians and bicyclists will be accommodated on an eight foot wide shared use path on one side of the roadway and a five foot wide sidewalk on the other side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design.

North Alternative 2 meets the Project Purpose and Need for improvements; this route would address vehicular and pedestrian safety, enhance traffic mobility and capacity, and facilitate planned economic growth. It is recommended as the preferred alternative since

it has the lowest impacts to businesses and the lowest impacts to wetlands. North Alternative 2 will be further refined to develop BMPs to minimize impacts. BMPs that will be investigated include collecting and slowing runoff from the roadway, runoff treatments at the Kishwaukee Headwaters and other wetlands, and native plant usage to provide a filtering media for runoff.

**Table 3-3: IL 47 North Alternative Evaluation**

Topic <sup>1</sup>		North Alternatives		
		No Action	Alternative 1	Alternative 2 <sup>2</sup>
Environmental	<b>Displacements</b>			
	Residential	0	8	0
	Commercial	0	0	0
	<b>Emergency Services Impacted</b>	None	None	None
	<b>Wetlands</b>			
	Acres	0	2.7	1.7
	Number	0	4	4
	<b>Floodplains</b>			
	Acres	0	3.2	2.4
	Number	0	1	1
	<b>Cultural</b>			
	Archaeological or Pre-Historic	None	None	None
	Historic Structures	None	None	None
<b>T &amp; E Species</b>	None	None	None	
<b>Natural Areas</b>				
Nature Preserves	None	None	None	
<b>Section 4(f)</b>	None	None	None	
Purpose & Need	<b>Improve Safety</b>	No	Yes	Yes
	<b>Improve Mobility/Capacity</b>	No	Yes	Yes
	<b>Facilitate Growth</b>	No	Yes	Yes

<sup>1</sup> Impacts based on Assumed ROW, Preliminary Estimates Only

<sup>2</sup> Preferred Alternative

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# Chapter 4 Environmental Resources, Impacts, and Mitigation

## 4.0 Environmental Resources, Impacts, and Mitigation

Chapter 3 discussed the process by which the preferred alternative was chosen. Based on this process, Revised South Alternative 2 was chosen for the southern portion of the project, and North Alternative 2 was chosen for the northern portion of the project. These alternatives were chosen because they have the least overall environmental impacts.

Once the preferred alternative was selected, further design was conducted using more refined data. The more detailed design determined that the roadway geometry requires more width than the preliminary design assumed. As a result, some environmental impacts will exceed those originally predicted for the preferred alternative. These differences are shown in [Table 4-1](#). Due to the need for a wider project corridor, there would have been the same relative increase in all environmental impacts for the alternatives not chosen. Although there is an increase in environmental impacts over what was originally predicted for the preferred alternative, it minimizes the impacts compared to the other build alternatives that were evaluated.

**Table 4-1: Comparison of Preferred Alternative Impacts**

Topic <sup>1</sup>		Preferred Alternative	
		Preliminary Estimate of Impacts for Alternatives Analysis (See Chapter 3)	Impacts based on Refined Preferred Alternative
Environmental	<b>Displacements</b>		
	Residential	1	3
	Commercial	0	2
	<b>Wetlands</b>		
	Acres	14.4	25.77
	Number	35	50
	<b>Floodplains</b>		
	Acres	23.5	18.83
Number	5	7	

This Section discusses the anticipated environmental impacts from the proposed improvements. The project area was inventoried for environmental resources. The environmental inventory map (See [Exhibit 4-1](#), located in the back of this document) identifies all sensitive cultural, natural, physical, and socio-economic resources in the study area. Resources potentially impacted by the proposed action or that require discussion pursuant to applicable laws and regulations are addressed in this Section. Coordination with resource/regulatory agencies regarding these

resources is also described in this Section. Copies of coordination correspondence with these agencies can be found in [Appendix A](#).

### 4.1 Social, Economic, and Community

#### 4.1.1 Community Characteristics and Cohesion

The Villages of Huntley and Lake in the Hills are located in the southern-most portion of the project corridor, between Reed Road and Conley Road. Within the Village of Huntley, most of the properties adjacent to IL 47 are commercial or retail establishments. Small portions adjacent to IL 47 are zoned residential (estate). The 2010 census data indicates that Huntley had an area of 14.07 square miles and a population of 24,291.

Within the Village of Lake in the Hills, properties adjacent to IL 47 are zoned for business and commercial uses. The 2010 census data indicates the Village of Lake in the Hills had an area of 10.38 square miles and a population of 28,965.

North of Lake in the Hills, in the vicinity of IL 176 is the Village of Lakewood. A small portion of Lakewood adjacent to IL 47 is zoned agricultural. The Village has recently annexed a parcel near IL 176 that is zoned for retail, light commercial, and office space. The Village does not have its own census block; therefore, its 2010 size and population are included in County statistics.

The central portion of the project corridor is unincorporated McHenry County and is primarily zoned agricultural and consists of production fields with associated farmsteads. There is one section in the central portion of the corridor that is zoned for estate development. According to the 2010 census, McHenry County had an area of 603.17 square miles and a population of 308,760.

The northern-most portion of the project corridor, between IL 176 and US 14, is located within the City of Woodstock, which is the County Seat. US 14, the northern project boundary, is located in the southern portion of the City. The City had a population of 24,770 according to 2010 census data. Properties adjacent to IL 47 are zoned primarily for business or commercial. A few properties are zoned either as residential or for manufacturing.

Since the project is proposing improvements to existing IL 47, no new community divisions would be introduced, neighborhoods would not experience any divisions, none would be isolated, and community cohesion would not be affected. Properties adjacent to IL 47 within incorporated communities are primarily zoned for commercial uses. Adjacent properties outside of incorporated communities are primarily agricultural, although the comprehensive plans for the communities show planned developments along most of the corridor. The proposed improvements would not alter these property uses and would therefore have no effect on community characterization.

### 4.1.2 Title VI and Other Protected Groups

The project corridor was evaluated for the presence of ethnic, racial, or religious minorities, and elderly or disabled groups. **Table 4-2** provides information on the demographics of the communities in the vicinity of the project corridor. As can be seen from the table, all of the communities have less than the state average of racial minorities or disadvantaged persons. The one exception is the Hispanic population within the City of Woodstock. Woodstock has a Hispanic population of 23.6%, compared to the state average of 16.3%.

Further evaluation of the Hispanic community was sought by evaluating census block data available from 2010. The Hispanic population is located in the central portion of the City of Woodstock, which is north of the project corridor, and will therefore not be affected.

Based on the census data available, and the current land uses adjacent to IL 47, groups of ethnic, racial, religious minorities, elderly, or disabled people are not present within any areas the proposed improvement would affect. No groups of individuals have been or will be excluded from participation in public involvement activities, denied the benefit of the project, or subjected to discrimination in any way on the basis of race, color, age, national origin, disability, or religion.

### 4.1.3 Environmental Justice

The project corridor was evaluated for the presence of minority or low-income populations. The information obtained is presented in **Table 4-2** and in *Section 4.1.2 - Title VI and Other Protected Groups*. As can be seen from the table, all of the communities have less than the state average of racial or disadvantaged persons. The one exception is the Hispanic population in the City of Woodstock. Woodstock has a Hispanic population of 23.6%, compared to the state average of 16.3%. This Hispanic population is located in central Woodstock, which is north of the project corridor.

**Table 4-2** presents the 2012 Department of Health and Human Services' poverty guidelines. These guidelines are a simplification of the poverty thresholds used for administrative purposes and are calculated in a slightly different manner than the poverty thresholds determined by the Census Bureau. These values are given for comparative purposes only, and cannot be used to calculate the percentage of persons below poverty numbers presented in **Table 4-2**.

Based on the discussion presented in *Section 4.1.2 - Title VI and Other Protected Groups*, it has been determined that this project is not located within or through identified minority and/or low income areas, or adjacent to minority and/or low income neighborhood communities. There would be no disproportionately high and adverse effects on minorities or low-income residents or communities because populations of minority and/or low income groups are not concentrated along the project corridor.

**Table 4-2: Demographics of Project Corridor**

Population Characteristic*	Village of Huntley	Village of Lake in the Hills	City of Woodstock	McHenry County	State of Illinois
Percentage White	89.5	86.7	83.5	94.2	77.9
Percentage Black	1.2	2	2.3	1.3	14.8
Percentage Hispanic	7.7	11.6	23.6	11.9	16.3
Percentage Asian	5.2	5.2	2.3	2.7	5.0
Persons 65 or older (%)	29.2	5.2	10.1	11.0	13.2
Per capita income	\$35,289	\$32,560	\$26,168	\$32,408	\$29,519
Median household income	\$70,524	\$85,429	\$56,479	\$77,325	\$56,853
Persons below poverty (%)	3.4	5.6	13.3	7.5	13.7

**Department of Health and Human Services  
2012 Poverty Guidelines for 48 Contiguous States**

Persons in family/household	Poverty guideline
1	\$11,170
2	\$15,130
3	\$19,090
4	\$23,050
5	\$27,010
6	\$30,970
7	\$34,930
8	\$38,890
For families/households with more than 8 persons, add \$3,960 for each additional person.	

\* US Bureau of Census, Quick Facts - Demographics based on 2012, Income 2008-2012. Data does not add up to 100% due to factors related to rounding numbers and persons claiming more than one race.

### 4.1.4 Public Facilities and Services

Public facilities located within one-half mile of the project corridor were identified. Identification of emergency services, such as police, fire, and hospitals, was also made for facilities within one mile of the project corridor.

There are two fire protection districts within the project corridor. The Huntley Fire Protection District covers Huntley, Lake in the Hills, and unincorporated McHenry County in the southern portion of the project corridor. Woodstock Fire and Rescue District covers Woodstock, Lakewood, and unincorporated McHenry County in the northern portion of the corridor. Each of the incorporated municipalities has its own police department. The McHenry County Sheriff responds to police calls in unincorporated McHenry County.

Within Huntley, there is one educational facility (Learning Tree Child Care Center) located approximately 0.15 mile east of IL 47; the Grafton Township Offices are located 0.25 mile west of IL 47; and two sports facilities owned by the Huntley Park District are near the project corridor; Pinecrest Golf Club located 0.10 mile south of the corridor, and Tomaso Sports Park located 0.3 mile west of IL 47. The Huntley Fire Department, Village Hall, and Police Department are all located one mile from the project corridor. The Contegra Immediate Care Clinic in Huntley is located 1.2 miles from the project corridor.

There are no public schools within one-half mile of the project corridor, but there is one church; New Life Christian Center is located 0.5 mile from IL 47. The Mercy Woodstock Medical Center, which contains an Immediate Care Clinic, is located 0.6 mile east of IL 47.

There is no bus service or Metra commuter rail service within the project corridor. Pace bus route #808 is adjacent to the study area and travels on IL 47 north of US 14, and on US 14 east of IL 47. The nearest Metra commuter rail service is the Union Pacific/Northwest line station located in downtown Woodstock, approximately two miles north of the project corridor.

**Table 4-3** summarizes the public facilities located in the project corridor. **Exhibit 4-2** indicates the public facilities in or near the project corridor.

Table 4-3: Public Facilities in Project Corridor

Public Facility	Location	Distance from Corridor	Impacts
Grafton Township Supervisor's Office	10109 Vine Street Huntley	0.25 mile	no impacts - outside project limits
Pinecrest Golf Club	11220 Algonquin Road Huntley	0.10 mile	no impacts - outside project limits
The Learning Tree Child Care Center	11424 Rainsford Drive Huntley	0.15 mile	no impacts – continued access via Rainsford Drive
Huntley Fire Protection District Station #2	Northeast corner Haligus and Reed Road, Huntley	1 mile	no impacts - outside project limits
Huntley Village Hall	10987 E. Main Street Huntley	1 mile	no impacts - outside project limits
Huntley Police Department	10911 E. Main Street Huntley	1 mile	no impacts - outside project limits
Centegra Immediate Care Walk-In Clinic	10350 Haligus Road Huntley	1.2 miles	no impacts - outside project limits
Tomaso Sports Park	Ackman Road Huntley	0.3 mile	no impacts - A break in the median will be located at Ackman Road, allowing for left turns from northbound IL 47
Mt Thabor Cemetery	Northwest corner Rt 176 and Mt. Thabor Road, Crystal Lake	1 mile	no impacts - outside project limits
Crystal Woods Golf Club, Privately Owned, Open to the Public	5915 S. Rt 47 Woodstock	adjacent	Access changes will allow right in/right out access only. Northbound traffic on IL 47 will need to do U-turn at IL 176.
Craig Woods Golf Course, Part of Crystal Woods	southeast corner Rt 176 and Rt 47 Woodstock	adjacent	Access changes will allow right in/right out access only. Southbound traffic on IL 47 will need to do U-turn at Ballard Road
New Life Christian Center	5115 Dean Street Woodstock	0.5 mile	no impacts - outside project limits
Mercy Woodstock Medical Center	2000 Lake Avenue Woodstock	0.6 mile	no impacts - outside project limits
Jehovah's Witnesses	1320 Catalpa Lane Woodstock	0.6 mile	no impacts - outside project limits
Woodstock Sewage Treatment	800 Dieckman Street Woodstock	0.3 mile	no impacts - continued access via Dieckman Street
IDOT Woodstock Maintenance Facility	11908 Catalpa Lane Woodstock	0.5 mile	no impacts - outside project limits
Dorr Township Road Maintenance Facility	12322 Davis Road Woodstock	0.5 mile	no impacts - outside project limits
McHenry County Memorial Park Cemetery	11301 Lake Avenue Woodstock	0.9 mile	no impacts - outside project limits

Two privately owned but open to the general public facilities would be impacted by the proposed improvements and are therefore included in the Table. Crystal Woods Golf Club, is located on the west side of IL 47 between Ballard Road and IL 176 (East Leg). Because of the median that would be constructed between the north bound and south bound lanes of IL 176, only right in / right out turns would be allowed. Northbound travelers wishing to access Crystal Woods Golf Club would have to complete a U-turn at IL 176.

Similarly, Craig Woods Executive Golf Course located on the east side of IL 47 directly across from Crystal Woods Golf Club, would also be accessible only to right in / right out traffic. Southbound travelers wishing to access Craig Woods would have to complete a U-turn at Ballard Road.

The proposed widening of IL 47 is expected to result in overall improvements to emergency services. Improved mobility and decreased traffic congestion would result in the ability of emergency services such as ambulances, fire trucks, and police to respond more quickly. The presence of a median that allows for left turns every half mile is expected to have minimal impacts on emergency service access as all major subdivisions would include at least one entrance cut in the median. Future subdivisions are also expected to have breaks in the median to provide direct access. The improved mobility would offset the increased travel time caused by inclusion of non-traversable medians at those locations where access roads have not been provided. The proposed improvements may have temporary impacts to services during construction, however, as emergency response may experience short delays due to construction activities and related traffic congestion.

Pedestrian and bicycle access to public facilities would be improved as a result of the proposed improvements. Five foot sidewalks are proposed along the west side of IL 47, and eight foot wide shared use paths would be added to the east side of the roadway. Shared use paths and sidewalks would require local agency commitment before being included in the final design.

### **4.1.5 Change in Travel Patterns**

IL 47 is an important north-south transportation linkage because it provides access to residential, retail, commercial, agricultural, and recreational lands throughout the region, including Wisconsin. The proposed improvements would have no effect on regional travel patterns because they call for improvements to existing IL 47, essentially within the existing corridor. Where there is current access to other roadways, left turn lanes would be developed in advance of most intersections with other roadways, so access to intersecting roadways would not change, and there would be minor corresponding change in travel patterns.

Minor impacts to local travel patterns may occur for those traveling to commercial or residential properties located on IL 47 within the project limits. A barrier median is proposed to separate north bound from southbound traffic, with breaks in the median at intersections. Because of the barrier median, residential and commercial driveways that currently enter/exit directly to/from IL 47 would be converted to right in / right out access only. U-turn capability would be provided at side road access points, approximately every half mile, thereby minimizing these impacts.

The proposed improvements would not create any barrier effects; change access for police, fire and/or health services (except for residential and commercial driveways that would be converted to right in / right out only access); all major subdivisions would include at least one entrance cut in the median and future subdivisions are expected to have breaks in the median to provide direct access. The proposed improvements would not create economic impacts on transportation-orientated commercial facilities; no new accesses would be created, and no current accesses to any areas would be eliminated.

Pedestrian and bicycle travel would be improved as a result of the proposed improvements. With local agency commitments, five foot sidewalks are proposed along the west side of IL 47, and eight foot wide shared use paths would be added to the east side of the roadway, allowing for non-motorized transportation where it does not currently exist.

### 4.1.6 Relocations (Business and Residential)

Transportation projects can result in the acquisition of the necessary real property interests and can cause the displacement of residents and businesses when new right of way is required. Any land acquisition needed would be accomplished in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as Amended*, commonly known as the *Uniform Act*, and the *IDOT Land Acquisition Manual*. The Uniform Act is applicable to all programs or projects undertaken by Federal agencies or with Federal financial assistance that require the acquisition of real property or that cause displacement of any person or business.

The proposed improvements would result in the displacement of three residential homes and two commercial enterprises. The displaced structures are identified on the environmental inventory map presented in [Exhibit 4-1](#) (located in the back of this document), and summarized below.

- Residence immediately north of Rainsford Drive, west side of IL 47
- Residence 1,000 feet south of Pleasant Valley Road, east side of IL 47
- Residence 1,100 feet south of Lucas Road, east side of IL 47
- Vacant Business (barn) 1,050 feet south of Lucas Road, east side of IL 47
- Red Barn Farm Market, 1,000 feet south of Hercules Road, east side of IL 47

In addition to these displacements, a portion of four businesses will be impacted. The impacted businesses are identified on [Exhibit 4-1](#) (located in the back of this document), and summarized below.

- Crystal Wood Golf Course, 1,050 feet south of Pleasant Valley Road, west side of IL 47, north of Ballard Road, a portion of parking lot will be impacted, resulting in the loss of 26 parking spaces
- Craig Woods Executive Golf Course, 750 feet south of Pleasant Valley Road, east side of IL 47, a portion of parking lot will be impacted, resulting in the loss of 38 parking spaces
- Craig Woods Executive Golf Course, 650 feet south of Pleasant Valley Road, east side of IL 47, Green #5 will be impacted
- Eddie's Landscape and Supplies, 2,000 feet north of IL 176 (West Leg), west side of IL 47, a portion of their materials storage will be lost
- Advantech Plastic LLC, 1,200 feet south of Cobblestone Way, west side of IL 47, will lose four visitor parking spaces



The proposed improvements were designed to minimize the number of displacements to the greatest reasonable extent. Multiple alternatives were studied and an impact evaluation was done on each of them (See *Section 3.4 – Build Alternatives*). Based on the evaluations, the alternatives with the least number of displacements were initially chosen. These alternatives underwent additional refinement in order to further minimize displacements. For example, the median was reduced to 30 feet south of Hercules Road and shoulders were eliminated north of Hercules Road, both of which further reduce the width of the right of way and minimized impacts. Curb and gutter were added to the proposed improvements south of Hercules Road to further reduce the width of right of way that otherwise would have been needed for ditches.

For impacts to parking spaces (Craig Woods, Advantech Plastic), material storage (Eddie's Landscaping), and golf course green (Craig Woods), replacement parking spaces, storage, and green #5 will be developed with the landowner during the Phase II Design. Replacement of lost parking will be consistent with local zoning requirements.

Additionally a private, recreational air strip (Phyllis Air Field) on the east side of IL 47, approximately 2,000 feet north of Conley Road, will be reduced in length by approximately 70 feet on the western end of the runway. The 2,000 foot runway will be shortened to 1,930 feet, which will still be greater than the 1,600 foot minimum required by the Illinois Division of Aeronautics (see Appendix A).

### **4.1.7 Mitigation of Right of Way Acquisition Impacts**

The acquisition of these properties would be accomplished in accordance with the *Uniform Relocation Assistance and Real Property Acquisition Act (Uniform Act)*. The *Uniform Act* provides for uniform, fair and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects.

Under the *Uniform Act*, in addition to just compensation, displaced residents are entitled to benefits to minimize hardships of relocation such as acquisition and relocation assistance designed to help residents and businesses with reimbursement claims and the lease or purchase of new locations. Relocation advisory assistance would be provided to owners and renters of displaced properties. Relocation advisory benefits would include determining the needs and preferences of displaced persons, providing current and ongoing listings of comparable dwellings for residential displacements, providing transportation to search for replacement housing, as well as financial referrals and housing inspection. Displaced residents would also be entitled to counseling and other assistance to minimize hardship in adjusting to the relocation. The *Uniform Act* would allow for reimbursement for moving expenses and payment for the added cost of renting or purchasing comparable replacement housing.

Comparable business locations and residential housing are generally characterized as housing that would meet the needs of displacees in terms of price, size, location and market availability. Market data from multi-listing services (<http://www.realtor.com> and <http://www.illinoisproperty.com>) were reviewed to determine the availability of similar replacement properties. The market data shows that a sufficient number of comparable replacement homes at similar values and in the same general areas are available.

### 4.1.8 Economic Impacts

Commercial and retail businesses are predominantly located within the Village of Huntley, and within the City of Woodstock. The environmental inventory map, **Exhibit 4-1** (located in the back of this document), indicates the businesses located adjacent to IL 47. The largest employers in the study area are located in the Village of Huntley and the City of Woodstock. **Table 4-4** indicates those employers who employ more than 100 employees.

The proposed improvements would result in measurable impacts to five businesses; two businesses will be displaced and three will be impacted by having portions of their facility converted. These impacts are discussed above in *Section 4.1.6 - Relocations (Business and Residential)*. In addition, impacts to businesses will occur due to access being converted to right in / right out access by way of a non-traversable median. These impacts would be minimized with the U-turn capability that would be provided at the side road access points, at approximately half mile intervals.

The proposed improvements were designed to minimize impacts to businesses, including farms, to the greatest extent possible. In the northern half of the project corridor, the chosen alternative generally fits within the existing right of way, which results in minimal impacts to businesses. The median was reduced to 30 feet and shoulders were eliminated, both of which further reduce the width of the right of way and minimized impacts.

Table 4-4: Major Employers in Project Vicinity

Employer <sup>1</sup>	Location	Number of Employees
Centegra Health Systems	Huntley	583
Dean's Foods Company	Huntley	210
GFS Group	Huntley	145
Huntley Outlet Center	Huntley	300
Weber-Stephens Products Company	Huntley	200
H.S. Crocker Company, Inc.	Huntley	124
Rush Truck Center	Huntley	165
LDI Industries, Inc.	Huntley	150
Union Special	Huntley	120
Centegra Health System	Woodstock	1,059
Brown Printing Company	Woodstock	715
Cardinal Health	Woodstock	700
Claussen Pickle Company	Woodstock	360
Wells Manufacturing Company	Woodstock	342
D.B. Hess Company	Woodstock	300
Guardian Electric Manufacturing Company	Woodstock	250
Thatcher Tubes LLC	Woodstock	190
Blain's Farm & Fleet	Woodstock	175
The Village of Hearthstone Communities	Woodstock	175
Jewel-Osco	Woodstock	120
Precision Quincy Corporation	Woodstock	120
The Woodstock Residence	Woodstock	120
McHenry County Government	Woodstock	1,100
Woodstock Community Unit School District #200	Woodstock	600
Special Education District of McHenry County	Woodstock	350
City of Woodstock	Woodstock	135

<sup>1</sup> Information on the Village of Huntley major employers obtained from <http://huntleyfirst.com> (June 18, 2012). Information on the City of Woodstock major employers obtained from Woodstock Chamber of Commerce based on 2005 data. When available, employer names are updated.

### 4.1.9 Land Use

Land use varies through the project corridor. The southern portion of the project corridor is located within the Village of Huntley. There is residential development on the east side of IL 47 just north of Reed Road. On the west side, the land immediately adjacent to IL 47 is currently under agricultural production but is zoned for residential development. Further north along the corridor, there are parcels zoned for commercial uses immediately adjacent to IL 47 on both the east and west sides. The Village of Huntley Land Use Plan (2005) indicates the Village intends to incorporate land on the west side of IL 47, north of the current Village limits up to Pleasant Valley Road. This property is currently under agricultural production but is intended to be developed as either residential or retail.

The Village of Lake in the Hills is adjacent to and immediately north of Huntley. The properties located in this portion of Lake in the Hills, on both sides of IL 47, are undeveloped. Most of it is under agricultural production but is zoned “Business – Transitional”. Future land use maps for this area indicate the Village intends it to be developed for commercial use.

North of Lake in the Hills, between Conley Road and Lucas Road, properties are located in unincorporated McHenry County. The properties adjacent to IL 47 are primarily agricultural with scattered farmsteads or open space. The McHenry County Future Land Use Plan indicates that these areas are planned for retail development and estate residential (lots between one and five acres) in the southern portion of the corridor, and residential and retail development in the northern portion of the project corridor. The Future Land Use Plan also sets aside environmentally sensitive areas for properties adjacent to the Kishwaukee River, its tributaries, and Kishwaukee Creek.

A small parcel of land located on the east side of IL 47 south of Foster Road is within the Village of Lakewood. This parcel is zoned agricultural. The Village’s Future Land Use Plan calls for the annexation of properties adjacent to IL 47 south of the current Village limits. Land use planning for the new properties includes residential, mixed use, and commercial/office development, with open space set aside adjacent to Conley Road.

The City of Woodstock’s southern city limits begin in the vicinity of Lucas Road. The properties are currently in agricultural production but are zoned residential; there are also areas designated as open space adjacent to the Kishwaukee River.

From Hercules Road to Novean Parkway the properties adjacent to IL 47 are in unincorporated McHenry County. Land here is in agricultural production or is open space. The City of Woodstock Comprehensive Land Use Plan (2008) indicates that the City intends to annex these properties, which will then be zoned for commercial uses.

The northern-most portion of the project corridor, north of Novean Parkway to the project limits is located within the city limits of Woodstock. There is a mixture of residential, business, and manufacturing zoning in this portion of the corridor, although property associated with the Kishwaukee River is dedicated to open space. This open space land is

consistent with the open space land identified in the McHenry County Future Land Use Plan as set aside as an environmental sensitive area (as discussed above).

**Exhibit 4-3** demonstrates existing land use in the project corridor. **Exhibit 4-4** demonstrates proposed land use in the project corridor.

The proposed improvements would not have any effect on municipal plans. The communities adjacent to IL 47 have all anticipated improvements to this roadway that include widening. All of the communities have planned for residential, retail, or commercial development adjacent to the roadway. Various communities have planned for open space in more environmentally sensitive areas. The proposed improvements would not result in the need for the involved communities or jurisdictions to alter any of the proposed land use or zoning.

### **4.1.10 Economic Activity and Development**

Locally, IL 47 serves as a transportation corridor within the adjacent communities and contains mixed use, multi-family residential, public/institutional, and commercial land uses.

The communities along the corridor have tools in place, such as formal comprehensive plans and zoning restrictions, to allow for planned residential and commercial growth. Currently, two major residential developments are planned within the project corridor; the Huntley Village Center North, located between Talamore Boulevard and Ackman Road; and the properties formerly known as the Apple Creek Estates, located between Lucas Road and Hercules Road. In addition, commercial centers are planned for the intersection areas near both IL 176 (East and West Legs) and IL 47 intersections. Smaller commercial and residential developments are planned as well throughout the corridor. The viability of current and future economic activity and development along the IL 47 corridor is restricted under current traffic operations.

The selection of the No-Action Alternative would result in continued restriction on the viability of current and future economic activity and development along the IL 47 corridor due to the congestion and safety issues that are currently being experienced.

The proposed alternative facilitates planned economic growth by improving capacity, accessibility, and mobility, thereby allowing for efficient movement of goods, employees, and customers.

### **4.1.11 Pedestrian and Bicycle Facilities**

Within the project corridor, a bicycle path exists on the east side of IL 47 between Reed Road and Rainsford Drive. This path is approximately six feet in width and is asphalt covered. Three short sections of sidewalk exist in the northern portion of the project corridor, on the west side of IL 47 across from Novean Parkway, on the east side of IL 47 north of Cobblestone Way, and on the west side of IL 47 south of US 14. Pedestrian and bicycle facilities also exist along some of the cross streets within the study area including: Reed Road, Rainsford Drive, Talamore Boulevard, Ackman Road, and Cobblestone Way.

IL 47 is designated as “Not Recommended for Bicycling” as defined by the McHenry County Bicycle Map (<http://www.dot.il.gov/bikemap/pdf/McHenry.pdf>). The *Kishwaukee Headwaters Proposed Intergovernmental Bike Trail Plan*, however, has designated portions of IL 47 in the northern and southern sections of the project corridor as slated for bicycle trails to be developed as future infrastructure improvements allow.

Future bicycle demand for the project corridor was assessed. According to *the American Community Survey* (<http://www.census.gov/acs/www>), cyclists accounted for 0.53% of the nationwide commuters in the Year 2010. Applying this usage rate to existing traffic (2011 ADT of 13,900 to 20,800 vehicles per day) suggests that bicycle traffic along the IL 47 corridor could be 74 to 110 bicycles per day, if bicycle accommodations were available.

The proposed improvements would maintain the existing sidewalks and bicycle paths, as well as make accommodations for new ones. On May 29, 2009, Stakeholder Workshop #2 reached a consensus that a bicycle path was desired for the project corridor. In response to that consensus, accommodations for five foot sidewalks are proposed along the west side of IL 47, and accommodations for eight foot wide shared use paths would be added to the east side of the roadway, depending on local cost participation. Shared use paths and sidewalks would require local agency commitment before being included in the final design. A graded shelf will be provided if local agencies do not participate in cost sharing. The new sidewalks and shared use paths would improve the corridor’s pedestrian and bicycle facilities.

The shared use path would allow bicyclists to access existing bike paths located in Woodstock, the Kishwaukee Park and Conservation Area, Crystal Woods Golf Club, Craig Woods Executive Golf Club, and residential subdivisions at the southern limits of the project corridor within the Village of Huntley. The shared use path would provide connectivity to the existing and proposed bike paths located within the municipalities along the project corridor. The proposed shared use path would provide the only off-road dedicated bicycle crossing over the Kishwaukee River within several miles of this location.

Openlands, a Chicago region conservation organization, provided a local bicycle plan including an exhibit on October 5, 2009 recommending four potential bicycle crossing locations. These will be coordinated with the local municipalities and addressed by the design engineer as the project progresses.

## 4.2 Agricultural

### 4.2.1 Farmland and Soils Identification

#### *Existing Farmland*

The study area extends approximately eight miles along IL 47 from Reed Road to US 14. The current land use in many places along the project corridor is agricultural. Long term land use plans and coordination with the municipalities however, indicate most of this will be developed for residential, retail, or commercial use. Nearly the entire project corridor is within a formal municipal planning boundary.

As discussed in *Section 4.1.8 – Land Use*, most of the corridor is within municipal boundaries, or is scheduled for annexation. Land use that is currently under agricultural production is for the most part zoned for residential, retail, commercial or open space use. Land use planning by the various municipalities identifies and plans for development that is compatible with a transportation corridor.

The proposed improvements would convert 91.6 acres of land currently under agricultural production. Coordination with the Illinois Department of Agriculture (IDOA) was undertaken utilizing a Farmland Conversion Impact Rating (FormAD-1060) (see [Appendix B](#)). The IDOA gave the project a score of 162 out of a possible 300-point maximum, using the Illinois Land Evaluation and Site Assessment (LESA) process. Using the LESA System, alternatives that receive a score of 175 or lower have a low rating for protection and additional evaluation is not necessary.

Due to the fact that the land that is currently under agricultural production is committed to urban development, and the proposed improvements received a LESA site assessment score of 162, it has been determined that the farmland impacts are not substantial.

#### *Soils*

Soils in the project corridor consist primarily of loams, silt loams, and silty clay loams. In the southern portion of the project corridor, the soils frequently found are:

- 146 – Elliot silt loam
- 232 – Ashkum silty clay loam
- 223 – Varna silt loam

In the northern portion of the project corridor, the soil most frequently found is:

- 530 – Ozaukee silt loam

Scattered throughout the corridor are various pockets of other soil types, including:

- 67 – Harpster silty clay loam
- 148 – Proctor silt loam
- 626 – Kish loam
- 149 – Brenton silt loam

- 8776 – Comfrey loam
- 802 – Orthents, loamy
- 327 – Fox silt loam
- 343 – Kane silt loam
- 323 – Casco loam
- 298 – Beecher silt loam

A loam soil is one that is composed of sand, silt, and clay in relatively even amounts. Loam soils are the most desirable for growing crops because they retain nutrients and water, while still allowing for drainage. This soil type is often associated with prime farmland. Loam soils have engineering properties that make them suitable for road construction and no special design measures would be needed for construction in areas containing these soils.

Houghton muck (soil 103 or 1103), is interspersed throughout the project corridor. This soil, composed primarily of organic matter, is associated with wetlands and located primarily in small depressional pockets or adjacent to creek/streams. There is one large area north of Conley Road, to approximately 600 feet north of Foster Road, where this soil dominates; this is approximately one mile in length. Houghton muck does not possess the engineering qualities necessary for the construction of a roadway and would have to be removed or altered in order to construct the proposed road improvements. Determinations on how to best deal with this unsuitable soil will be made during the final engineering design with the preparation of contract plans and specifications.

### ***Farm Operations***

The proposed improvements would not directly affect farm operations. No parcels would be severed and there are no locations where access to agricultural fields would be impeded.

There may be adverse travel during spring planting and fall harvesting for those parcels where left turns are no longer permitted due to the introduction of the median. Adverse travel will be minimized because right turns will be allowed, with U-turns permitted at cut outs located approximately every 1/2 mile. Additionally, any adverse travel would only occur in one direction as the reverse trip would not be affected by the median.

### ***Prime Farmland***

The USNRCS *National Soil Survey Handbook* Section 622.04 defines prime farmland as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses.” (<http://soils.usda.gov/technical/handbook/contents/part622.html>)

Prime farmland is recognized by the U.S. Department of Agriculture under the Farmland Protection Act. Land does not have to be under agricultural production to be considered prime farmland, but land that is urbanized or developed is not considered prime farmland. Of the 39.7 acres of agricultural land located outside of current municipal boundaries, the



USNRCS determined that 31.2 acres are prime or unique farmland and 7.5 acres are state or locally important.

### ***Centennial Farms***

A Centennial Farm is one that has been owned by the same family for at least 100 years. The family must be in the direct line of descent, such as a child or a grandchild, or of collateral descendent, but is otherwise closely related, such as a brother, sister, uncle, aunt, or cousin.

Per the U.S. Consolidated Farmed Service Agency, there are no Centennial Farms within the project corridor (see Appendix A).

### **4.2.2 Protected Agricultural Areas**

#### ***Conservation Reserve Program***

The Conservation Reserve Program (CRP) is a voluntary program for agricultural landowners. Agricultural property can be converted to a vegetative cover such as grassland. The CRP reduces erosion while enhancing water quality, wildlife habitat, and stormwater management.

Per the U.S. Consolidated Farmed Service Agency, there are no properties within the project corridor that are enrolled in the CRP program (see Appendix A).

### **4.2.3 Erodible Soils**

Information regarding erodible soils was obtained from USNRCS and examination of corridor cross sections. Information on the soil types present in the project corridor was evaluated based on classifications of soils with regards to the slopes identified in the McHenry County Soil and Water Conservation *Soils Data Book*. In Illinois, highly erodible soils are those soils found in areas with slopes greater than 4%. Extremely erodible soils are those found in areas with slopes greater than 12%. Based on the information provided by the soil classifications, those areas with soils that developed at slopes greater than 4% were examined. Cross sections of the roadway that coincided with these soils were examined to determine the actual slope. In this manner, areas with slopes greater than 4% and 12% were identified.

The project corridor has 21.7 acres of highly erodible soils and 0.5 acres of extremely erodible soils.

During construction, a Storm Water Pollution Prevention Plan (SWPPP) will be developed that will identify BMPs for erosion and sediment control to be used throughout construction. The SWPPP will be developed using guidance from IDOT's Bureau of Design and Environment Manual and Section 280 of IDOT's *Standard Specification for Road and Bridge Construction* (2012). The choice of BMPs for use in areas with highly erodible and extremely erodible soils will be developed during the Phase II design and may include erosion control blankets, more robust sediment control fencing, earlier vegetative seeding,

more closely spaced ditch checks, or other forms of BMPs that would minimize erosion or sediment runoff in these areas.

### 4.3 Cultural

An Environmental Survey Request (ESR) and Addendum ESRs were processed. The State Historic Preservation Officer (SHPO) concurred on November 17, 2009 with IDOT's determination that no sites subject to protection under Section 106 of the National Historic Preservation Act of 1966 would be affected by the proposed improvements. The SHPO further determined on November 24, 2010 that no survey or further coordination is required for Cultural Resources.

The SHPO provided updated concurrence on December 3, 2013 with IDOT's determination that no historic properties would be affected by the project. Copies of the correspondences with the SHPO are included in [Appendix A](#).

#### 4.3.1 Archaeological Sites

Per IDOT's archaeological report and Phase I documentation completed by the University of Illinois, four archaeological sites were recorded. These sites consist of scatters of late 19<sup>th</sup> to early 20<sup>th</sup> century cultural materials that do not meet the criteria for listing on the National Register.

Per SHPO concurrences dated November 17, 2009 and November 24, 2010, no archaeological sites subject to protection under Section 106 of the National Historic Preservation Act of 1966 will be affected by the proposed improvements.

#### 4.3.2 Historic Bridges

Per IDOT's Phase I documentation completed by the University of Illinois, no bridges eligible for listing on the National Register are present in the project corridor.

Per SHPO concurrences dated November 17, 2009 and November 24, 2010, no historic bridges subject to protection under Section 106 of the National Historic Preservation Act of 1966 will be affected by the proposed improvements.

#### 4.3.3 Historic Districts and Buildings

Per the older structures photographic log provided with the ESR submitted on May 6, 2008, several structures older than 50 years are present in the project corridor. IDOT Bureau of Design and Environment (BDE) determined that none of the structures are eligible for listing on the National Register.

Per SHPO concurrences dated November 17, 2009 and November 24, 2010, no sites subject to protection under Section 106 of the National Historic Preservation Act of 1966 would be affected by the proposed improvements.

### 4.3.4 Unanticipated Discovery during Construction

If any unanticipated discoveries of historic properties, sites, artifacts, or objects occur during the implementation of any project, IDOT will coordinate with Federal Highway Administration (FHWA) to comply with 36 CFR 800.13 and the Illinois *Human Skeletal Remains Protection Act* [20 Illinois Compiled Statutes (ILCS)] 3440), as appropriate. This will involve stopping work in the immediate area, and informing the SHPO and County Coroner of the unanticipated discoveries or effects within two business days. IDOT will coordinate with Illinois State Archaeological Survey to ensure that any necessary archaeological investigations are conducted according to the provisions of the Illinois *Human Skeletal Remains Protection Act*.

Work on the portion of the site where human remains are found cannot resume until a plan for the treatment of the human remains is developed and approved in consultation with the SHPO and any appropriate consulting parties. IDOT's BDE will coordinate with FHWA to ensure the plan complies with the Illinois *Human Skeletal Remains Protection Act*, and all other appropriate Federal and State guidelines, statutes, rules, and regulations.

If any unanticipated effects on historic properties are found to be occurring during the implementation of any project, IDOT will coordinate with FHWA to comply with 36 CFR 800.13 and inform the SHPO immediately.

## 4.4 Air Quality

### 4.4.1 Microscale Analysis

The IDOT Carbon Monoxide Screening for Intersection Modeling (COSIM) 4.0 model, Pre-Screen feature is used to provide project documentation that the project is “exempt” from a project-level carbon monoxide (CO) air quality analysis. **Specifically, a project is exempt if the highest design-year approach-volume on the busiest leg of the intersection is less than 5,000 vehicles per hour (VPH) or 62,500 average daily traffic (ADT).** The FAP 326, IL 47, IL 176; from Reed Road to US 14 (Northwest Highway), McHenry County meets this criteria for “exemption”. (See [Appendix C](#) for copy of the COSIM Pre-Screen modeling results.)

### 4.4.2 Air Quality Conformity

The National Ambient Air Quality Standard (NAAQS), established by the U.S. Environmental Protection Agency (USEPA), set maximum allowable concentration limits for six criteria air pollutants. Areas in which air pollution levels persistently exceed the NAAQS may be designated as “nonattainment.” States where a nonattainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS. Areas that had been designated as nonattainment, but that have attained the NAAQS for the criteria pollutant(s) associated with the nonattainment designation, will be designated as maintenance areas.

All areas of Illinois currently are in attainment of the standards for four of the six criteria pollutants: CO, nitrogen dioxide, sulfur dioxide, and lead. For the eight-hour ozone and particulate matter with particles smaller than 2.5 micrometers (PM<sub>2.5</sub>) standards, Cook, DuPage, Kane, Lake, McHenry, and Will Counties have been designated as moderate nonattainment areas for the eight-hour ozone standard. The Lake Calumet area and Lyons Township in Cook County have been designated as a maintenance area for the particulate matter with particles smaller than 10 micrometers (PM<sub>10</sub>) standard.

This project is included in the FY 2010 - 2015 TIP endorsed by the Metropolitan Planning Organization Policy Committee of the CMAP for the region in which the project is located. Projects in the TIP are considered to be consistent with GO TO 2040, the 2040 regional transportation plan endorsed by CMAP. The project is within the fiscally constrained portion of the plan.

On October 13, 2010, the FHWA and the Federal Transit Administration determined that the 2040 regional transportation plan conforms to the SIP and the transportation-related requirements of the 1990 Clean Air Act Amendments. On March 26, 2014, the FHWA and the Federal Transit Administration determined that the TIP also conforms to the SIP and the Clean Air Act Amendments. These findings were in accordance with 40 CFR 93, "Determining Conformity of Federal Actions to State or Federal Implementation Plans." The project's design concept and scope are consistent with the project information used for the TIP conformity analysis. Therefore, this project conforms to the existing SIP and the transportation-related requirements of the 1990 Clean Air Act Amendments. The TIP number for this project is: **11-07-0014**.

The proposed improvements for IL 47 are not an air quality concern under *40 CFR 93.123(b)(1)* due to the fact that the project is an expanded add lanes highway project; it does not generate a significant increase in the number of diesel vehicles; it does not affect intersections that are at LOS "D", "E", or "F" with significant number of diesel vehicles; and it would not change intersections to Level of Service "D", "E", or "F" because of increased traffic volumes from a significant number of diesel vehicles related to the project. It has been determined that the project would not cause or contribute to any new localized PM<sub>2.5</sub> or PM<sub>10</sub> violations or increase the frequency or severity of any PM<sub>2.5</sub> or PM<sub>10</sub> violations. The USEPA has determined that such projects meet the Clean Air Act's requirements without any further Hot-Spot analysis.

### 4.4.3 Mobile Source Air Toxics

For the proposed improvements to IL 47, the design year (2040) traffic level is predicted to be less than 140,000 vehicles annual ADT.

A qualitative analysis provides a basis for identifying and comparing the potential differences among *Mobile Source Air Toxic* (MSAT) emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions among Transportation Project Alternatives*, found at:

[http://www.fhwa.dot.gov/environment/air\\_quality/air\\_toxics/research\\_and\\_analysis/mobile\\_source\\_air\\_toxics/msatemissions.cfm](http://www.fhwa.dot.gov/environment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.cfm).

The amount of MSAT emitted from the proposed improvements would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the proposed improvements is slightly higher than that for the No-Action Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions in the project corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to USEPA's MOVES2010b model, emissions of all of the priority MSAT decrease as speed increases. Because the estimated VMT under each of the studied build alternatives are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of USEPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the USEPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the IL 47 proposed improvements would have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, the proposed improvements may result in localized areas where ambient concentrations of MSAT could be higher under the proposed improvements than the No-Action Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the expanded roadway sections that would be built from Reed Road to US 14 due to the proposed improvements. However, the magnitude and the duration of these potential increases compared to the No-Action Alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In summary, when a highway is widened, the localized level of MSAT emissions for the build alternative could be higher relative to the No-Action Alternative, but this could be offset due to increases in speeds and reductions in congestion (that are associated with lower MSAT emissions). Also, MSAT would be lower in other locations when traffic shifts away from them. However, on a regional basis, USEPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

#### **4.4.4 Construction-Related Particulate Matter**

Demolition and construction activities can result in short-term increases in fugitive dust and equipment-related particulate emissions in and around the project corridor. (Equipment-related particulate emissions can be minimized if the equipment is well maintained.) The potential air quality impacts from this construction would be short-term,

occurring only while demolition and construction work is in progress and local conditions are appropriate.

The potential for fugitive dust emissions typically is associated with building demolition, ground clearing, site preparation, grading, stockpiling of materials, on-site movement of equipment, and transportation of materials. The potential is greatest during dry periods, periods of intense construction activity, and during high wind conditions.

IDOT's *Standard Specifications for Road and Bridge Construction* includes provisions on dust control. Under these provisions, dust and airborne dirt generated by construction activities will be controlled through dust control procedures or a specific dust control plan, when warranted. The contractor and IDOT will meet to review the nature and extent of dust-generating activities and will cooperatively develop specific types of control techniques appropriate to specific situations. Techniques that may warrant consideration include measures such as minimizing track-out of soil onto nearby publicly-traveled roads, covering haul vehicles, and applying chemical dust suppressants or water to exposed surfaces, particularly those on which construction vehicles travel. With the application of appropriate measures to limit dust emissions during construction, the proposed improvements would not cause any significant, short-term particulate matter air quality impacts.

Construction air quality dust control (particulate matter) shall consist of developing and implementing a detailed Dust Control Plan (DCP) when circumstances warrant, and in the non-attainment areas and "Maintenance" areas as specified in the currently adopted IDOT "Standard Specifications for Road and Bridge Construction", *Article 107.36, Dust Control*, the wind prone open areas of this project are considered to warrant a DCP. All construction activities shall be governed by a DCP. The nature and extent of dust generating activities, and specific control techniques appropriate to specific situations, shall be discussed at the pre-construction meeting, with subsequent development of the DCP.

IDOT's construction-related requirements dealing with the use of cleaner diesel fuel is addressed and specified in the currently adopted "Supplemental Specifications and Recurring Special Provisions", *Article 107.41(a) and (b), Construction Air quality for Idling Restrictions, and Diesel Vehicle Emissions Control*.

In addition, IDOT BDE "Special Provision" for *Construction Air Quality - Diesel Retrofit*, effective June 1, 2010, may also be applicable.

## 4.5 Noise

### 4.5.1 Traffic Noise - Impact – Abatement

A traffic noise study has been conducted to evaluate traffic noise for the proposed IL 47 proposed improvements, and is documented in the *IL 47 Noise Analysis Technical Report*. The traffic noise study evaluated a total of 39 Representative Receptors located within 39 Common Noise Environments (CNE). A CNE is a group of receptors within the same noise category that are exposed to similar noise sources and traffic noise levels.

For developed land use categories, a Representative Receptor was chosen for each CNE. The selected Representative Receptor was generally chosen as the closest receptor to IL 47 and therefore the worst-case traffic noise condition. **Table 4-5** lists the locations of the 39 CNEs; **Exhibit 4-5** indicates their location.

The Existing traffic noise levels range from 49 A-weighted decibel [dB(A)] to 67 dB(A). The projected No Action (2040) traffic noise ranges from 50 dB(A) to 68 dB(A). Generally, the receptor noise levels increased between 1 dB(A) and 3 dB(A) from the Existing scenario compared to the No Action (2040) as a function of increases in traffic volumes. **Table 4-5** indicates the predicted existing and predicted noise levels at each CNE.

The projected Build (2040) traffic noise levels range from 51 dB(A) to 70 dB(A). The projected Build (2040) noise levels increased between 0 dB(A) and 5 dB(A) from the existing condition as a function of increased traffic and a shift of the widened alignment.

There were three Representative Receptors from three CNEs for the Build (2040) improvement that were determined to approach, meet, or exceed the FHWA Noise Abatement Criteria, and therefore warranted consideration of traffic noise abatement. Of these three, only one remained viable since the receptors for the other two CNEs will be acquired based on preliminary engineering and right of way requirements for the Build Alternative geometrics, thereby removing these receptors from any Design Year (2040) traffic noise impact.

For the Representative Receptor for the remaining CNE that exceeds FHWA Noise Abatement Criteria (CNE 16), a traffic noise abatement wall was considered and evaluated. The evaluated wall met the *Feasibility* criterion but did not stand the test of reasonableness for the *Noise Reduction Design Goal* and *Cost Effectiveness* criterion. **Table 4-6** summarizes feasibility and reasonableness of noise abatement for CNE 16.

**Therefore, highway traffic noise abatement measures are not likely to be implemented for the proposed IL 47 preliminary engineering design.**

### What is Feasible per IDOT's Noise Policy?

A noise barrier is considered feasible if it will reduce noise impacts by at least 5 dB(A) for at least one impacted receptor.

### What is a Noise Impacted Receptor?

A facility or structure where noise levels are expected to increase to within 1 dB(A) of the Federal Highway Authority's Noise Abatement Criteria (NAC depends on type of property/facility), or where increases are expected to exceed 14 dB(A) over existing noise levels.

### What is Reasonable, per IDOT's Noise Policy?

A noise barrier is considered reasonable if it reduces noise impacts by at least 8 dB(A) for at least one benefited receptor location, or by at least 5 dB(A) for one sensitive receptor, and costs less than a specified dollar amount (based on noise level and ranging from \$24,000 to \$37,000 per benefited receptor).

## Chapter 4 Environmental Resources, Impacts, and Mitigation

**Table 4-5: Common Noise Environments (CNEs) and Predicted Noise Impacts**

CNE No.	FHWA Activity Category Property Use	Local Zoning and/or Comprehensive Plan Designation	Nearest Roadway to Representa- tive Receptor	Distance to IL 47 centerline (feet)	Number of Receptors in CNE	Existing Noise Levels [dB(A)]	No Action Noise Levels 2040 [dB(A)]	Build Noise Levels 2040 [dB(A)]	Noise Level Increase [dB(A)]
1	<b>B</b> Single Family Residences	H-Business Service PUD	IL 47	374	7	52	54	53	1
2	<b>C</b> Pinecrest Country Club	H-Single Family Residential	IL 47	344	1	53	55	54	1
3	<b>B</b> Single Family Residences	H-Single Family Residential	IL 47	207	5	58	60	59	1
4	<b>E</b> Business	H-Shopping Center Business	Reed Road	293	1	59	61	59	0
5	<b>B</b> Single Family Residences	H-Duplexes, Townhomes, Condominiums	Reed Road	769	1	51	53	52	1
6	<b>E</b> Business – Walgreens	H-Retail and Commercial	IL 47	216	1	62	64	62	0
7**	<b>B</b> Farmstead	H-Retail and Commercial	IL 47	142	none	64	66	<b>N/A</b>	<b>N/A</b>
8	<b>B</b> Farmstead	H-Retail and Commercial	IL 47	166	1	62	63	65	3
9	<b>E</b> Business	H-Retail and Commercial	Rainsford Road	278	1	62	63	62	0
10	<b>B</b> Single Family Residences	H-Residential Estate	IL 47	431	11	58	60	60	2
11	<b>B</b> Manufacturing	H-Townhomes, Condominiums	IL 47	804	10 (36 units)	49	50	52	3
12	<b>B</b> Single Family Residences	H-Residential Estate PUD	Talamore Rd	380	12	50	51	52	1
13	<b>E</b> Business	H-Shopping Center Business	Talamore Road	287	1	60	62	61	1
14	<b>B</b> Manufacturing	H-Townhomes, Condominiums	Ackman Road	750	6 (36 units)	56	57	56	0
15	<b>B</b> Farmstead	H-Retail & Commercial	Ackman Road	294	1	59	60	60	1
16	<b>B</b> Farmstead	H-Residential Estate	IL 47	149	2	64	65	<b>66</b>	2
17	<b>B</b> Farmstead	MC-Agriculture	Foster Road	410	1	59	62	63	4
18	<b>B</b> Farmstead	MC-Agriculture	Foster Road	462	1	51	54	56	5
19	<b>B</b> Farmstead	MC-Estate	Ballard Road	631	1	49	51	51	2
20	<b>B</b> Single Family Residences	MC-Estate	IL 47	158	3	60	61	61	1
21	<b>B</b> Single Family Residences	MC-Estate	IL 47	257	6	62	63	62	0
22	<b>B</b> Single Family Residences	MC-Estate	IL 47	143	5	61	62	62	1
23	<b>C</b> Crystal Woods Club House	L-INC	IL 47	304	3	59	60	59	0



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CNE No.	FHWA Activity Category Property Use	Local Zoning and/or Comprehensive Plan Designation	Nearest Roadway to Representa- tive Receptor	Distance to IL 47 centerline (feet)	Number of Receptors in CNE	Existing Noise Levels [dB(A)]	No Action Noise Levels 2040 [dB(A)]	Build Noise Levels 2040 [dB(A)]	Noise Level Increase [dB(A)]
24	<b>B</b> Single Family Residences	L-INC	IL 47	147	4	63	64	64	1
25**	<b>B</b> Single Family Residences	L-INC	IL 47	175	none	60	61	N/A	N/A
26**	<b>C</b> Craig Woods #5 green	L-INC	IL 47	145	5	67	68	65	-2
27	<b>B</b> Farmstead	MC-Neighborhood Business and Estates	Pleasant Valley Road	692	1	55	56	55	0
28	<b>B</b> Farmstead	L-INC	Pleasant Valley Road	700	1	54	55	55	1
29	<b>B</b> Single Family Residences	MC-Agriculture	IL 47	710	1	50	51	52	2
30	<b>B</b> Farmstead	MC-Agriculture	IL 47	358	1	58	59	60	2
31	<b>B</b> Single Family Residences	MC-Agriculture	Lucas Road	742	1	50	51	53	3
32	<b>B</b> Single Family Residences	MC-Agriculture	IL 47	233	1	59	60	62	3
33	<b>E</b> Business	W-Shopping Center	IL 47	169	1	63	65	66	3
34	<b>B</b> Manufacturing (not occupied)	UNC-MFR	IL 47	351	1 (6 units)	54	55	56	2
35	<b>B</b> Single Family Residences	MC-Agriculture	IL 47	376	3	58	59	60	2
36	<b>B</b> Single Family Residences	W-Light Manufacturing	IL 47	174	1	58	59	60	2
37	<b>B</b> Single Family Residences	MC-Agriculture	IL 47	199	8	58	59	60	2
38	<b>B</b> Manufacturing	W-MFR PUD	Cobblestone Way	448	4 (8 units)	54	56	57	3
39	<b>B</b> Manufacturing	W-MFR District	IL 47	459	3 (64 units)	49	51	52	3

\*\* Receptor to be acquired based on preliminary engineering and right of way requirements

H = Village of Huntley  
 CL = City of Crystal Lake  
 LH = Village of Lake in the Hills  
 W = City of Woodstock  
 L = Village of Lakewood  
 MC = McHenry County

Table 4-6: Noise Abatement Summary Table

CNE No.	Barrier Height	Barrier Length	Total Cost	Noise Reduction Potential dB(A)	Estimated Cost per Benefited Receptor	Allowable Cost per Benefited Receptor	Likely to be Implemented	If No, Reasons Why
16	10 feet	650 feet	\$162,500	5	\$162,500	\$24,000	No	Although feasible, noise reduction goal of 8 dB(A) is not met and it is not economically reasonable.

#### 4.5.2 Undeveloped Lands Traffic Noise – Coordination

The majority of land within the project limits is undeveloped and / or currently agricultural. Future traffic noise levels for this project were projected for lands (either currently under the jurisdiction of McHenry County, the Villages of Huntley, Lake in the Hills, Lakewood and the Cities of Woodstock and Crystal Lake or land that may come under these jurisdictions) near the proposed IL 47 improvement. This included noise contours for land use planning of undeveloped and / or agriculture land that is zoned for uses other than agriculture, or land that is or may be planned for future development in the various jurisdictional comprehensive land use plans.

Traffic noise compatible land use planning is a community planning process and method to reduce or eliminate highway traffic noise that is explained in FHWA’s publication “*Entering the Quiet Zone: Noise Compatible Land Use Planning*”. The publication can be obtained at:

[http://www.fhwa.dot.gov/environment/noise/noise\\_compatible\\_planning/federal\\_approach/land\\_use/quietzone.pdf](http://www.fhwa.dot.gov/environment/noise/noise_compatible_planning/federal_approach/land_use/quietzone.pdf)

Traffic noise compatible land use planning is possible with advanced planning and responsibilities shared between local governing units and developers to minimize effects from traffic noise. Common methods used in the practice of noise compatible planning are:

- Identification of land uses specifically suited for areas adjacent to highways
- Open space next to highways is designated that allows room to accommodate the dissipation of noise before it reaches noise sensitive areas

The Zoning Maps depict the undeveloped lands along the IL 47 corridor for future development of business, commercial, industrial, office, residential and open space.

Traffic noise contours for land use planning of undeveloped and/or agriculture land that is zoned for uses other than agriculture, or land that is or may be planned for future development in the various jurisdictional comprehensive land use plans, was provided to the communities in March 2013. This information is contained in the *IL 47 Noise Analysis Technical Report*.

### **4.5.3 Construction Noise**

Trucks and machinery used for construction produce noise that may affect some land uses and activities during the construction period. Residents along the alignment would at some time experience perceptible construction noise from implementation of the proposed improvements. To minimize or eliminate the effect of construction noise on these receptors, mitigation measures have been incorporated into the currently adopted IDOT's *Standard Specifications for Road and Bridge Construction, Article 107.35, Construction Noise Restrictions*.

The construction methods to be used for proposed improvements are considered and determined in the final engineering design with the preparation of contract plans and specifications. Depending on the construction methods and potential for construction noise impacts, there are several potential abatement options that might be considered if they are warranted.

#### ***Construction Staging***

Options for minimizing noise impacts during construction could include the installation of temporary barriers, such as temporary walls; stock piles of materials; equipment enclosures for noisy equipment, such as shields or heavy curtains; routing construction equipment away from identified sensitive receptors; or operating equipment as far from any identified sensitive receptors as is feasible and practical.

#### ***Sequence of Operations***

Options for minimizing noise impacts could include scheduling and conducting louder construction operations during the day and not during the night, when people are much more sensitive to noise, or conducting multiple loud operations at one time. The total noise level from multiple activities would not substantially increase the overall noise level. Its effect is that it would reduce the total duration of that noise level in the defined area.

#### ***Alternative Construction Methods***

Options for minimizing noise impacts include the evaluation of alternative pile driving methods, as this is a major noise contributor and can generate vibration complaints. The project could also consider quieter demolition methods or pavement removal methods, such as using special muffler systems, shields (such as structural barriers), or enclose equipment (such as portable curtains).

## **4.6 Natural Resources**

### **4.6.1 Upland Plant Communities**

The project corridor is composed primarily of developed or agricultural land; there are only small amounts of natural habitat left in the area.

There are some former cropland fields in the project corridor that have been out of production for multiple years. These fields range in size from approximately 20 acres to

160 acres and are scattered throughout the project corridor and have begun to undergo succession. Most are in the early successional stages and are dominated by invasive species such as *Melilotus alba* (white sweet clover), *M. officinalis* (yellow sweet clover), *Trifolium pretense* (red clover), *T. repens* (white clover), *Plantago major* (common plantain), *Taraxacum officinale* (common dandelion), *Erigeron annuus* (annual fleabane), *Pastinaca sativa* (wild parsnip), *Lolium perenne* (rye grass), and *Bromus racemosus* (smooth brome). There is also some low quality riparian habitat associated with several creek and tributary crossings in the project corridor. These areas are discussed below in *Section 4.6.2 -Wildlife Resources*, because they are primarily wetland habitats with interspersed upland habitats within the complexes.

Landscape trees are scattered throughout the project corridor and are located in developed areas (i.e. houses and businesses). The types of landscape trees most commonly found in the project corridor include honey locusts (*Gleditsia* species), pine (*Pinus* species), spruce (*Picea* species), maple (*Acer* species), ornamental pear (*Pyrus* species), ash (*Fraxinus* species), and oaks (*Quercus* species). Specimen trees are notable or valued, based on consideration of species, size, condition, age, longevity, visual quality, or genetic attributes, as determined by the public and/or resource agencies and IDOT. No trees were identified that would be considered specimen trees.

### 4.6.2 Wildlife Resources

Wildlife habitat present is minimal and consist of crops, mowed lawn, and ornamental plantings. The project corridor does not have substantial resources for wildlife. Wildlife habitat, the types of wildlife expected to be present, and the impacts to these resources are discussed below.

#### 4.6.2.1 Habitat in the Project Corridor

Land use in the corridor is primarily developed or under agricultural production and thus has limited wildlife value. Generally, the habitat present is associated with the various streams that pass through the corridor or successional agricultural land that is no longer in production. Both the riparian habitat associated with the streams and the successional agricultural land located in the project corridor are dominated by invasive species. Below is a discussion of the wildlife habitat located in the project corridor. [Table 4-7](#) summarizes the locations and attributes of the larger habitat areas.

Table 4-7: Wildlife Resources in Project Corridor

Location	Available Habitat/Resource	Perennial Water Available	Animals Most Likely Present
adjacent to the north side of Union Road and extending approximately 450 north (east side)	Early successional agricultural field located on east side of Rt 47, dominated by invasive species.	no	small mammals
300 feet north of Rainsford Drive	Open water detention pond located on east side of Rt 47, intermittent unnamed tributary to South Branch Kishwaukee River, and wetland located on west side (INHS Wetland 3). Wetland and tributary dominated by cattails and reed canary grass.	no	small mammals, amphibians, turtles
500 feet north of Talamore Blvd	Intermittent tributary to South Branch Kishwaukee River with narrow band of riparian habitat dominated by scrub/shrub on both east and west sides of Rt 47 (INHS Waters of US W1).	yes	small and large mammals, amphibians, turtles, birds
500 feet north of Talamore Blvd, extending for 1,000 feet north	Early successional agricultural field located on east side of Rt 47, dominated by invasive species. Adjacent to tributary to South Branch Kishwaukee River at Sta. 405, area includes INHS Wetlands 6 and 9.	yes	small mammals, birds
850 feet north of Ackman Rd	Tributary to Kishwaukee Creek with narrow band of riparian habitat dominated by scrub/shrub on west side of Rt 47, on east side by reed canary grass (INHS Waters of US W2).	yes	small and large mammals, amphibians, turtles, birds
Conley Rd	Tributary to Kishwaukee Creek on west side of Rt 47, narrow band of riparian habitat dominated by scrub/shrub (INHS Waters of US W3). IDOT data indicates vehicular/animal crashes have occurred here.	yes	small and large mammals, amphibians, turtles, birds
South of Foster Rd	Early successional agricultural field located on east side of Rt 47, dominated by invasive species (INHS Wetland 12).	no	small mammals, birds
600 feet south of Foster Road extending 400 feet north	Early successional agricultural field located on east side of Rt 47, dominated by invasive species. Includes INHS Wetland 17.	no	small mammals, birds
400 feet north of Foster Road extending 400 feet north	Early successional agricultural field located on east side of Rt 47, dominated by invasive species. Includes INHS Wetland 20. Adjacent to Kishwaukee River.	yes	small and large mammals, amphibians, turtles, birds
550 feet south of Ballard Rd	Kishwaukee River with narrow band of riparian habitat dominated by scrub/shrub and low quality woodland on both the east and west sides of Rt 47 (INHS Waters of US W6).	yes	small and large mammals, amphibians, turtles, birds
450 feet south of Rt 176 (East Leg)	IDOT data indicates vehicular/animal crashes have occurred here.	no	small and large mammals
adjacent to the northeast side of Rt 176 (East Leg) to Pleasant Valley Road, east side	ADID wetland K1008 located in northeast corner of intersection provides mosaic of wetland and forested habitats, portions of which have been identified as having high habitat value (INHS Wetlands 28, 32, 61). Wetlands also located in southwest corner of intersection. IDOT data indicates vehicular/animal crashes have occurred here.	yes	small and large mammals, amphibians, turtles, birds

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Location	Available Habitat/Resource	Perennial Water Available	Animals Most Likely Present
300 feet south of Rt 176 (West Leg)	Unnamed intermittent tributary to Kishwaukee River with narrow band of riparian habitat dominated by scrub/shrub on the west side of Rt 47 and reed canary grass on the east side (INHS Wetland 45, Waters of US W11).	yes	small mammals, amphibians, turtles, birds
Rt 176 (West Leg)	A complex of wetlands identified in the ADID study as K984 is associated with an unnamed tributary of the Kishwaukee River, south of Rt 176, approximately 3/4 mile west of Rt 47. These wetlands, identified as ADID high habitat value wetlands, have forested habitat interspersed with open water wetlands. (INHS Wetlands 42 and 43, Waters of US W9 and W10.)	yes	small and large mammals, amphibians, turtles, birds
1,000 feet north of Rt 176 (West Leg)	Wetland complex that does not provide high quality habitat but includes scrub/shrub intermixed with wetlands. Could provide wildlife corridor to wetlands located west of project corridor. (INHS Wetland 46, ADID Wetland K925)	no	small and large mammals, birds
beginning 2,200 feet south of Lucas Road and extending to 250 feet south of Lucas Road	This location contains scrub/shrub habitat associated with fallow agricultural fields and a wetland complex (INHS Wetlands 46, 47, 48, and 49) on the west side of Rt 47. Property on the east side contains tree cover. This complex provides habitat not as high quality as ADID wetlands, but could be significant in an area dominated by development and agriculture. May provide a wildlife corridor to wetlands located west of the project corridor and woodlands located east. IDOT data indicates vehicular/animal crashes have occurred here.	yes	small and large mammals, amphibians, turtles, birds
adjacent to north side of Hercules Road, and extending 550 feet north	Early successional agricultural field located on west side of Rt 47, dominated by invasive species. Area includes INHS Wetland 56 and is adjacent to ADID Wetland K692.	no	small mammals, birds
350 feet south of Novean Parkway	Unnamed tributary to Kishwaukee River includes habitat composed primarily of wet meadow with scattered shrubs and trees, on east side of Rt 47 (INHS Wetland 56, Waters of US W12). IDOT data indicates vehicular/animal crashes have occurred here.	yes	small and large mammals, amphibians, turtles, birds
350 feet north of Novean Parkway, extending to 450 feet south of Dieckman St.	Headwaters of Kishwaukee River, located on the east and west sides of Rt 47, include habitat composed primarily of wet meadow interspersed with shrubs and trees (INHS Wetland 57, Waters of US W6).	yes	small mammals, amphibians, turtles, birds

The project corridor crosses the Kishwaukee River headwaters, the Kishwaukee River, four unnamed tributaries to the Kishwaukee River, and the Kishwaukee Creek in two locations.

Within the project corridor, wildlife habitat associated with the Kishwaukee River and its tributaries is low quality. Habitat associated with the headwaters, located near Dieckman Street, is composed primarily of wet meadow with interspersed shrubs and trees. [This area is noted by Illinois Natural History Survey (INHS) as Wetland 57 and Waters of US W6; it also corresponds to ADID Wetland K663.] The project corridor also crosses the Kishwaukee River at approximately 650 feet north of Foster/Union Road, where there is only a narrow band of riparian habitat dominated by scrub shrub and low quality woodlands.

For the other crossing locations, upland species composition is dominated by low quality species such as *Phalaris arundinacea* (reed canary grass), *Rhamnus* species (buckthorn), *Acer negundo* (box elder), *Cornus racemosa* (gray dogwood), and *Lonicera* species (honeysuckle).

The largest successional agricultural field is located between 250 and 2,200 feet south of Lucas Road, and is associated with wetland habitat (INHS Wetlands 46, 47, 48 and 49). This upland/wetland habitat is a large scrub/shrub complex located on both the east (50 acres) and west (60 acres) sides of IL 47. Multiple parcels of land in this area are no longer under agricultural production and have been allowed to naturalize. (Historical aerial photographs indicate most of the parcels, with the exception of the wettest located in the north, were under agricultural production in 1988. By 1999, agricultural production was no longer occurring on most of it.) This area likely provides substantial wildlife habitat due to the relatively large size and habitat diversity. Additionally, this area may provide a wildlife corridor to wetlands located west of the project corridor and woodlands located east of the corridor. The properties are privately owned so there is no permanent protection to ensure that this habitat remains undeveloped.

There are several other isolated areas of higher quality habitat in the project corridor. At the intersection of IL 176 (East Leg), a large wetland identified in the ADID study as ADID K1008 is located on the northeast side of the intersection. It contains a mosaic of wetland and forest habitat and a portion of it has been identified by the McHenry County ADID study as having high habitat value. (Portions of ADID wetland K1008 have been delineated by INHS. The INHS wetlands that correspond with this area are Wetlands 27, 28, and 61.)

Another wetland complex identified by the McHenry County ADID study as having high habitat value is wetland K984, located adjacent to IL 176 (West Leg). This complex is associated with an unnamed tributary to the Kishwaukee River. The tributary has not been channelized in this vicinity and a fair amount of forested habitat is associated with it, interspersed with open water habitat. (The INHS wetlands that correspond with this area are Wetlands 42 and 43, the INHS Waters of the U.S. that correspond with this area are Waters 9 and 10.)

Impacts to wildlife habitat in the project corridor, including impacts to the higher quality areas discussed here, are discussed in *Section 4.6.2.4 - Impacts to Wildlife and Habitat in Project Corridor*.

### **4.6.2.2 Wildlife Present in Project Corridor**

Wildlife present in the project corridor is represented by species that are adapted to suburban or agricultural environments and are common, disturbance tolerant species. The project corridor is within the eastern half of the Mississippi flyway, which is used by neotropical migrant birds in the United States and Canada. The species known to inhabit the project corridor are not sensitive and are common. In addition to birds, the project corridor is utilized by various mammals, reptiles, and amphibians.

### **4.6.2.3 Wildlife and Habitat in Project Corridor**

Below is a discussion of the proposed project's impact on wildlife and habitat in the project corridor.

#### ***Agricultural Land***

Agricultural land contains minimal habitat but can provide food and shelter to deer, raccoon, and opossum. The minimal amount of impacts to agricultural land is not anticipated to result in measurable impacts to any species present.

#### ***Urban Land***

Urban lands are located primarily at the northern and southern ends of the project corridor. The proposed improvements would result in impacts to 13.33 acres of urbanized land. Urbanized areas are habitat for species that can tolerate disturbances such as raccoon, opossum, and more common species of birds. The minimal amount of impacts to urban land is not anticipated to result in measurable impacts to these species, especially considering their tolerance to disturbance.

#### ***Riparian Habitat***

The proposed improvements would result in impacts to 0.71 acres of riparian habitat. Riparian areas can provide important habitat to wildlife due to the presence of a diversity of vegetation and water. Additionally, these areas can act as wildlife corridors. The riparian habitat in the project corridor is generally small and fragmented, and therefore provides only minor benefits. Wildlife expected to use riparian habitat in the project corridor include deer, fox, raccoon, opossum, muskrat, beaver, and song birds. The proposed improvements would not fragment any existing riparian habitat, but would only result in small losses at the edge of the existing habitat, immediately adjacent to IL 47. Because the proposed improvements would result in a minimal amount of impacts to riparian habitat, it is not anticipated that measurable impacts would occur to any species utilizing this habitat.



### *Forested Areas*

The proposed improvements would not impact any forested or woody riparian habitats larger than 20 acres, nor would it fragment forested parcels. The proposed improvements would impact 2.33 acres of low quality mix of scrub/shrub and forested land immediately adjacent to the IL 47 corridor. Wildlife within these areas may consist of deer, fox, raccoon, and various species of birds. Due to the low quality of this habitat adjacent to IL 47, and the fact that only small losses would occur at the edge of the existing habitat, it is not anticipated that measurable impacts would occur to any species utilizing this habitat.

### *Successional Agricultural Land*

The proposed improvements would impact 27.94 acres of successional agricultural land that is currently providing wildlife habitat. Many of the successional fallow lands are small and scattered throughout the project corridor with the exception of the largest field that is located between 2,200 feet south of Lucas Road and 250 feet south of Lucas Road (discussed above in Section 4.6.2.1 - *Habitat in Project Corridor*). Impacts to this successional field will be 3.17 acres (included in the 27.94-acre total). Due to the low quality of most of the successional agricultural habitat due to its fragmented condition, small size, and close proximity to IL 47, it is not anticipated that measurable impacts would occur to any species utilizing this habitat. Impacts due to the loss of 3.17 acres at the field located south of Lucas Road would include loss of breeding and foraging wildlife habitat. This loss would not be substantial because it is contained at the edge of the roadway and is therefore less suitable than more interior habitat.

### *Wetland Habitat*

Wetland habitat in the project corridor is primarily of low quality due to poor vegetative diversity, with the exception of the two higher quality ADID wetlands located at the intersections of IL 47 and IL 176. These two wetlands, ADID Wetlands K1008 and K984, have high habitat value; the project will have 0.67 acres and 0.14 acres of impacts to these wetlands, respectively. With regards to most of the wetland habitat in the project vicinity, it is of low quality, has low vegetative diversity, and is in close proximity to IL 47, it is therefore anticipated that there will be no substantial impacts to any species because this habitat is most likely under-utilized. With regards to the two ADID high habitat quality wetlands, the portions of these wetlands that will be impacted are adjacent to IL 47 and are therefore already degraded by this proximity, therefore impacts to this habitat are not expected to be substantial either.

### *Detention Ponds*

The proposed improvements would not impact any retention or detention ponds in the project corridor.

### 4.6.2.4 Vehicle/Wildlife Crashes in Project Corridor

In order to determine the areas of animal/vehicle collisions, data was obtained from IDOT on animal crashes that have occurred on IL 47 between 2008 and 2012. In conjunction with habitat assessments made via aerial photography and a site reconnaissance, this data was combined to determine the areas most likely to be used by animals for crossing the road.

Wildlife crossings under IL 47 are recommended and will be further studied during the final engineering design. The crossings recommended at this time consist of openings 4.0 feet wide by 5.0 feet high placed below ground level so that soil and other natural ground components can be added to bring the bottom of the crossing up to grade level. These crossings would accommodate small mammals and amphibians, but it is unlikely that deer will be able to utilize them due to their size. Enlarging the opening of the crossing, is not feasible as raising the profile to accommodate larger crossings would result in the need for additional right of way and increased wetland impacts. Further studies during final design may be able to identify locations where the crossings can be made large enough to accommodate deer. In any event, the length of the crossings would be determined by the width of the embankment, but in most cases would be slightly less than 100 feet. In most instances, the crossings would be placed adjacent and parallel to box culverts or bridges at stream crossings. The wildlife crossings would be raised slightly above the low flow line so they would be relatively dry during low flow periods.

There is one location for wildlife crossings that is not be associated with a nearby creek or river. This location, 100 feet south of Conley Road, should be designed for small mammals. IDOT data on animal crashes indicates this location has historically experienced animal crashes.

**Table 4-7** summarizes the larger wildlife habitat available in the project corridor and includes sections of roadway that have the highest potential for increased animal-vehicle collisions. **Table 4-8** indicates locations for recommended crossings and the types of animals that are expected to utilize them. The installation of wildlife crossings should serve to minimize the number of vehicle/wildlife crashes.

Table 4-8: Potential Wildlife Crossings

Location	Description	Wildlife Crossing
850 feet north of Ackman Rd	Tributary to Kishwaukee Creek culvert should be designed to promote amphibian and small mammal crossings	Wildlife crossing can be placed south of and adjacent to culvert for Kishwaukee Creek.
100 feet south of Conley Rd	IDOT animal crash data indicates a large mammal crossing should be considered here	Wildlife crossing can be placed south of Conley Road.
650 feet north of Union/Foster Rd	Accommodations for amphibians, small mammals, and large mammals should be considered. A large mammal crossing could be installed at Station 531, or a Kishwaukee River bridge could be designed to accommodate large mammals. The Kishwaukee River bridge should promote amphibian and small mammal crossings. The presence of the Iowa darter requires natural riverine conditions at the Kishwaukee River.	Wildlife crossing can be placed south of Kishwaukee River bridge.
100 feet south of relocated Pleasant Valley Rd	IDOT animal crash data indicates a large mammal crossing should be considered here. May be installed in conjunction with proposed drainage culvert at this location.	Wildlife crossing can be placed south of and adjacent to culvert.
900 feet south of Lucas Rd	IDOT animal crash data indicates a large mammal crossing should be considered here. May be installed in conjunction with proposed drainage culvert at this location.	Wildlife crossing can be placed north of and adjacent to culvert.
600 feet north of Hercules Rd	IDOT animal crash data indicates a large mammal crossing should be considered here. Should be placed outside of existing wetland.	Wildlife crossing can be placed south of and adjacent to culvert.
450 feet south of Dieckman St	Accommodations for amphibians, small mammals, and large mammals should be considered. A Kishwaukee River bridge could be designed to accommodate large and small mammals. The presence of the Iowa darter requires natural riverine conditions at the Kishwaukee River.	Wildlife crossing can be placed north of and adjacent to culvert for Kishwaukee River.

### 4.6.3 Threatened and Endangered Species

Threatened and endangered species are protected under the Endangered Species Act (ESA) (16 U.S.C. 1531-1544, 1973). The ESA provides a program for the conservation of threatened and endangered plants and animals and their habitats. The law requires federal actions, including actions authorized or funded by a federal agency, to ensure that those actions are not likely to jeopardize the continued existence of any listed species, or result in the destruction or adverse modification of designated critical habitat of such species.

Threatened and endangered species identified by the State of Illinois are protected by the Illinois Endangered Species Protection Act. Consultation for the protection of state-listed species is required by 17 Illinois Administrative Code (IAC) Part 1075.

4.6.3.1 Federally Listed Species

Federally-listed threatened and endangered species assessments were conducted through the use of the U.S. Fish and Wildlife Service’s (USFWS) web-based endangered species list by county, in the Midwest. The website is located at <http://www.fws.gov/midwest/endangered/lists/illinois-cty.html>.

Based on the USFWS website, three federally-protected species are known to occur within McHenry County. Additionally, the project corridor was assessed for the potential for the presence of *Myotis sodalis* (Indiana bat). There is no habitat for these species present in the project corridor as shown in **Table 4-9**.

**Table 4-9: Federally Listed Threatened and Endangered Species in Project Vicinity**

Species	Habitat Preferences	Habitat Present in Corridor	Status
<i>Platanthaera leucophaea</i> (eastern prairie fringed orchid)	Moderate to high quality wetlands, sedge meadows, marshes, and mesic to wet prairies.	no	Federally Threatened
<i>Lespedeza leptostachya</i> (prairie bush clover)	Dry to mesic prairies with gravelly soil.	no	Federally Threatened
<i>Myotis sodalis</i> (Indiana bat)	Caves, mines (hibernacula); small stream corridors with well-developed riparian woods; upland forests (foraging).	no	Federally Endangered
<i>Myotis septentrionalis</i> (northern long-eared bat)	Caves, mines (hibernacula); live or dead trees, woods/forests	no	Federally Proposed as Endangered

IDOT BDE, Environment Section, Natural Resources Unit prepared a Biological Resources Review (BRR) memo dated July 23, 2010. The BRR concluded that because there are no mesic to wet prairies in the project corridor, high quality emergent wetlands (i.e., with FQI more than 20 or mean C 3.5 or higher), there is no suitable habitat for the eastern prairie fringed orchid. Because there are no dry mesic prairies with gravelly soil in the project corridor, there is no suitable habitat for the prairie bush clover. A copy of this BRR is contained in **Appendix A**.

A second BRR dated August 30, 2011 was prepared for additional right of way. This review also determined that there is no suitable habitat for the eastern prairie fringed orchid or the prairie bush clover within the extended roadway footprint. A copy of this BRR is contained in **Appendix A**.

A blue ribbon study was performed in cooperation with IDOT, USFWS, and INHS. A USFWS letter dated April 10, 2008 advised that the blue ribbon study that included a two-year effort to capture Indiana bats in northeastern Illinois resulted in a determination that the Indiana bat is not likely present in northeastern Illinois. The letter further stated that transportation projects would not be required to consult for a period of five years as these projects are cleared from Indiana bat related Section 7 responsibilities until the summer of 2012. USFWS extended the exception for transportation projects from Indiana bat consultation in a letter

dated October 23, 2012. No specific end of the clearance from consultation was stipulated in this second letter. Based on the discussion above, IDOT has determined that the project is not likely to adversely affect the Indiana bat.

The IDOT BDE, Environment Section, Natural Resources Unit reviewed this project and determined that this project will not affect the northern long eared bat. This determination was made based upon the lack of suitable habitat in the project area. The only trees present are either residential landscape trees or are sparsely vegetated tiny wooded areas. In addition, this area is developing from a rural residential and agricultural area into a commercial/residential area with increasing populations.

**4.6.3.2 State-Listed Species**

Coordination with the Illinois Department of Natural Resources (IDNR) was started through the IDNR Ecological Compliance Assessment Tool (EcoCAT). An EcoCAT was submitted to IDNR on September 24, 2008 and several state protected species were identified in the project vicinity. These species are listed in **Table 4-10**. (A copy of the EcoCAT report can be found in **Appendix A**.)

**Table 4-10: State Listed Threatened and Endangered Species in Project Vicinity**

Species	Habitat Preferences	Habitat Present in Corridor	Status
<i>Ixobrychus exilis</i> (least bittern)	Freshwater or brackish marshes with tall emergent vegetation.	yes	State Threatened
<i>Xanthocephalus xanthocephalus</i> (yellow-headed blackbird)	Breeds in prairie wetlands and along marshes where tall reeds and rushes are present. Forages in the wetlands and in surrounding grasslands and croplands.	yes	State Endangered
<i>Buteo swainsoni</i> (Swainson's hawk)	Found in open country such as grasslands, scrub/shrub, and agricultural areas.	yes	State Endangered
<i>Grus Canadensis</i> (sandhill crane)	Primarily found in open freshwater wetlands	yes	Delisted in 2009
<i>Emydoidea blandingii</i> (Blanding's turtle)	Found in shallow, marshy waters and ponds.	yes	State Endangered
<i>Etheostoma exile</i> (Iowa darter)	Found in sluggish streams or marshes with clear water, often found in areas with sand or organic matter substrates or with dense aquatic vegetation.	yes	State Threatened
<i>Alasmidonta viridis</i> (slippershell mussel)	Found in small to medium-sized streams with flowing water, sand or gravel bottoms.	possibly	State Threatened

IDNR responded to the EcoCAT submittal on September 29, 2008 and requested that IDOT conduct fish surveys due to the presence of the Iowa darter. The Illinois Natural History Survey conducted fish surveys on July 15, 2009 in the project corridor. Fish sampling was conducted at three locations. The first location was within the Kishwaukee River south of US 14. The second was

within the Kishwaukee River south of Ballard Road. The third one was within an unnamed tributary of the South Branch Kishwaukee River between Conley and Reed Roads. Thirteen Iowa darters were collected at Site 1 and six were collected at Site 2.

The Illinois Natural History Survey reported that the state-threatened *Erimystax x-punctatus* (gravel chubs), state-endangered *Notropis heterolepis* (blacknose shiners), and state-endangered *N. texanus* (weed shiners), are known to occur within the watershed. None were found during the fish survey.

In order to avoid impacts to the state threatened Iowa darter (*Etheostoma exile*), no in stream work shall be conducted from April 1 through June 15 of any construction year at the following locations:

- Site 1: Kishwaukee River at IL 47, approximately 200 feet to 600 feet south of Dieckman Road
- Site 2: Kishwaukee River at IL 47, approximately 650 feet north of Foster/Union Road

A decline in water quality has the potential to impact the Iowa darter. As discussed below in *Section 4.7.2 – Water Quality (Operational Impacts)*, it is expected that the stormwater management improvements would result in an overall improvement in water quality over existing conditions. Drainage of stormwater from the inside lanes to the center median where vegetation will remove contaminants, the installation of vegetated ditches, and the installation of bioswales will all result in the treatment of stormwater before it exits the right of way. Based on the commitment that no in stream work is conducted during the spawning season at the two sites identified as having Iowa darters, the proposed improvements are expected to have minimal impacts on this species.

The IDOT BDE determined that the project will not affect the state-protected species *Ixobrychus exilis* (least bittern), *Xanthocephalus xanthocephalus* (yellow-headed blackbird), *Buteo swainsoni* (Swainson's hawk), *Grus canadensis* (sandhill crane), *Emydoidea blandingii* (Blanding's turtle), and *Alasmidonta viridis* (slippershell mussel) in memos, labeled Biological Resource Review, dated July 23, 2010, August 30, 2011, and September 13, 2013 (please see appendix A). IDNR closed consultation via email (emails dated August 4, 2010 and November 29, 2010, see Appendix A). Although habitat for these species may be found in the project vicinity, habitat is not found immediately adjacent to IL 47 where the proposed improvements will occur.

### 4.6.4 Invasive Species

Invasive species are defined by the Federal Executive Order 13112 as “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health”. McHenry County is the eighth leading county in the State of Illinois with the most invasive species. Per the Early Detection and Distribution Mapping System ([http://www.eddmaps.org/tools/statereport.cfm?id=us\\_il](http://www.eddmaps.org/tools/statereport.cfm?id=us_il)), the invasive species most likely to occur in McHenry County include:

- *Rosa multiflora* (multiflora rose)
- *Elaeagnus umbellata* (autumn-olive)
- *Lonicera maackii* (Amur honeysuckle)
- *Melilotus officinalis* (yellow sweet clover)
- *Daucus carota* (Queen Anne's lace, wild carrot)
- *Stellaria media* (common chickweed)
- *Verbascum thapsus* (common mullein)
- *Dactylis glomerata* L. (orchardgrass)
- *Allium vineale* (wild garlic)
- *Bromus tectorum* (cheatgrass)
- *Capsella bursa-pastoris* (shepherd's-purse)
- *Cerastium vulgatum* (common mouse-ear chickweed)
- *Eragrostis cilianensis* (stinkgrass)

Per the Illinois Noxious Weed Law, a noxious weed is “any plant which is determined by the Director, the Dean of the College of Agriculture of the University of Illinois and the Director of the Agricultural Experiment Station at the University of Illinois, to be injurious to public health, crops, livestock, land or other property” (505 ILCS 100/2).. Per the U.S. Department of Agriculture Natural Resource Conservation Service state-listed noxious weeds (<http://plants.usda.gov/java/noxious?rptType=State&statefips=17>) and the Illinois Noxious Weed Law, the following are noxious weeds and may be found in McHenry County per *Plants of the Chicago Region* (Swink & Wilhelm, Morton Arboretum, Lisle, IL 1994)

- *Ambrosia artemisiifolia* L. (common ragweed)
- *Ambrosia trifida* L. (giant ragweed)
- *Cannabis sativa* L. (marijuana)
- *Cardus nutans* (musk thistle)
- *Cirsium arvense* (Canada thistle)
- *Sonchus arvensis* (field thistle)

In addition to the above designated species, the following species are located within McHenry County and have the potential to be invasive.

- *Alliaria petiolata* (purple loosestrife)

- *Dipsacus* species (teasel)
- *Lonicera tatarica* (tartarian honeysuckle)
- *Phalaris arundinacea* (reed canary grass)
- *Rhamnus* species (buckthorn)

In addition to plant species, the project corridor is located within the Illinois Department of Agriculture quarantine area for *Agrilus planipennis* (emerald ash borer), and this insect has been confirmed in McHenry County (<http://www.agr.state.il.us/eab/>).

Construction of the proposed improvements may result in conditions that would allow for the establishment or expansion of populations of invasive species. Many of the invasive species are already occurring within the project corridor. Vegetative clearing and ground disturbances can create conditions that promote the establishment or spread of invasive species.

IDOT has developed Special Maintenance Provisions to combat invasive plant species. IDOT provisions include the use of herbicides and other measures to control invasive species within the roadway rights of way. These provisions also apply during construction activities. Measures that may be instituted to manage invasive species during construction include immediate seeding of bare soil, cleaning of construction equipment prior to entering areas near sensitive habitats, and active management of invasive plants that become established during construction. Measures that may be instituted to manage invasive species after construction include the use of herbicides, manual cutting, and timely mowing of rights of way. Utilization of these measures would minimize the potential for invasive species to become established.

Landscaping and erosion control plans developed for the proposed corridor will not use species listed as invasive species or noxious weeds. In areas adjacent to natural areas, such as the Kishwaukee River located in the northern portion of the project corridor, if invasive species and/or noxious weeds are found in or adjacent to construction areas, precautions will be taken to ensure the proposed improvements do not result in invasive species and/or noxious weed impacts the adjacent natural area.

### 4.6.5 State Designated Lands

State Designated Lands include Illinois Natural Areas, Land and Water Reserves, and Nature Preserves. There are no State Designated Lands in the project corridor.

## 4.7 Water Resources and Aquatic Habitats

### 4.7.1 Water Resources

The project corridor is located within the Kishwaukee River drainage basin, hydrologic unit code (HUC) 0709006. The INHS conducted wetland delineations in 2009, June 2011, and June 2013. In their reports *IL 47 (FAP 326) from Reed Road to US 14 - Addendum A* (August 2011) and *IL 47 (FAP 326) Addendum B Reed Road to US 14* (August 2013) the INHS reported 13 streams or creeks and one pond in the project



corridor. In addition to the 14 water resources identified by INHS, AECOM identified an additional location where an unnamed tributary to Kishwaukee Creek crosses the southern portion of the project corridor. The streams and ponds located in the project corridor are summarized in [Table 4-11](#) and their locations can be found in [Exhibit 4-1](#) (located in the back of this document).

The project corridor contains 14 streams that are crossed through the length of the project corridor. The Kishwaukee River is crossed twice, once in the southern portion of the project corridor as it flows westward, and again in the northern portion of the project corridor where it flows eastward. In the northern portion of the corridor, the Kishwaukee River currently crosses IL 47 approximately 400 feet south of Dieckman Street via 6 x 5 foot box culvert (see sheet 14 of [Exhibit 4-1](#), located in the back of this document). At this location, the river flows from the west, crosses under IL 47, and then runs parallel and adjacent to IL 47 southward along the east side of the roadway. A 700 foot segment of the river on the east side of IL 47 will have to be shifted towards the east to accommodate the proposed improvements. The existing box culvert will be replaced by a 10 x 6 foot box culvert slightly south of the existing culvert's location in order to better align the crossing of the Kishwaukee River. A retaining wall will be installed along the roadway at this location in order to minimize river and wetland impacts, and the roadway within the retaining wall limits will be drained via a proposed 30 inch diameter storm sewer. A hydrodynamic separator will be provided at the downstream end of this storm sewer system to improve water quality.

The Kishwaukee River in the project corridor has been given a biological rating of C for biotic integrity by the IDNR. Per fish surveys conducted by the INHS in July 2009, the Kishwaukee River at both the south and north crossings contains the Iowa darter.

In addition to the Kishwaukee River, IL 47 crosses the South Branch of the Kishwaukee River, Kishwaukee Creek, and several unnamed tributaries to these water resources in the project corridor.

A total of 1.49 acres of streams will be impacted by the project. Included in this total is 0.37 acres of aquatic habitat in the Kishwaukee River.

Impacts to the streams are not avoidable due to the fact that the proposed road improvements would be built upon an existing corridor and the streams are either adjacent to or crossing the roadway. Impacts were minimized by reducing the median to 30 feet, constructing curb and gutter south of Hercules Road, bringing the sidewalks and shared use paths closer to the roadway, utilizing a retaining wall at the northern Kishwaukee River crossing, and reducing the standard 10 foot shared use path to eight feet, all of which reduce the width of the right of way and minimized impacts. Impacts would be further minimized by the use of bridges or culverts. Bridges and culverts would be oversized so that the flow is not constricted. Culverts would be oversized and set one foot below the bottom of the flow line to allow silt to accumulate and provide a natural stream bottom.

Table 4-11: Streams and Ponds in Project Corridor

INHS Site No.	Location	Comments	NWI Code	Description	Community Type	Linear Feet <sup>2</sup>	Impacts (linear feet)	Impacts (acres)	Meets USEPA water quality standards	T&E Species Present	Riffles/ Pools Present <sup>3</sup>	Mussels Present <sup>3</sup>	Water Type <sup>4</sup>
	250 feet north of Rainsford Dr	West side of Rt 47 primarily		Unnamed tributary to South Branch Kishwaukee River	stream	200	120	0.03	yes				NRPW
1	350 feet north of Talamore Blvd			Unnamed tributary to South Branch Kishwaukee River	stream	720	150	0.09	yes		yes/yes	yes	RPW
2	850 feet north of Ackman Rd			Kishwaukee Creek	stream	660	120	0.40	yes		no/no	no	RPW
3	across from Conley Rd	West side of Rt 47 only		Kishwaukee Creek	stream	110	50	0.07	yes		no/no	no	RPW
4/14	50 feet north of Foster Rd	Pond on east side of Rt 47	freshwater pond	excavated quarry	deepwater aquatic habitat			0	yes				Isolated
5	400 feet to 650 feet north of Foster/Union Rd	East of Rt 47 only		Does not appear on USGS topo map, ditch feeds into Kishwaukee River	stream	540	450	0.24	yes		no/no	no	RPW

<sup>2</sup> Linear feet estimated based on Environmental Survey Request project limits

<sup>3</sup> As determined by the INHS Wetland Reports

<sup>4</sup> As determined by the INHS/AECOM, Waters type:

RPW- relatively permanent waters that flow directly or indirectly to traditionally navigable water

Isolated – waters isolated from Waters of the US

NRPW – non-RPWs that flow directly or indirectly to traditional navigable waters

Chapter 4 Environmental Resources, Impacts, and Mitigation

INHS Site No.	Location	Comments	NWI Code	Description	Community Type	Linear Feet <sup>2</sup>	Impacts (linear feet)	Impacts (acres)	Meets USEPA water quality standards	T&E Species Present	Riffles/ Pools Present <sup>3</sup>	Mussels Present <sup>3</sup>	Water Type <sup>4</sup>
6	650 feet north of Foster/Union Road		R2OWHx	Kishwaukee River	stream	810	240	0.07	no	Iowa darter	no/no	no	RPW
7	On Rt 176 East Leg, north side of road, 1,000 feet east of Rt 47			Does not appear on USGS topo map, ditch feeds into wetland	stream	310	270	0.10	yes		no/no	no	NRPW
8	On Pleasant Valley Rd, north and side, 2,000 feet west of Rt 47	Waters 8, 9, 10, and 11 are all part of the same system. Waters 8, 9, and 10 are outside of the project limits.		Unnamed intermittent tributary to the Kishwaukee River	stream	50		0	yes		no/no	no	NRPW
9	On Pleasant Valley Rd, north side, 3,200 feet west of Rt 47				stream	830		0	yes		yes/yes	no	NRPW
10	On Pleasant Valley Rd, north and side, 2,600 feet west of Rt 47				stream	2,650		0	yes		yes/yes	no	RPW
11	350 feet south of IL Rt 176 (West Leg)				stream	230	180	0.11	yes		no/no	no	RPW
12	250 feet north of Hercules Rd	West side of Rt 47 only	PEMC	Unnamed tributary to Kishwaukee River	stream	110	60	0.01	yes		no/no	no	RPW
13	East side of Rt 47 across from Hawthorn Way	East side of Rt 47 only		Unnamed tributary to Kishwaukee River	stream	350		0	yes		no/no	no	NRPW
6	200 feet to 600 feet south of Dieckman Street		R2OWHx	Kishwaukee River	stream	700	700	0.02	no	Iowa darter	no/no	no	RPW

The USEPA indicates that the Kishwaukee River did not meet water quality standards in 2014. Per the IEPA's *Illinois Integrated Water Quality Report and Section 303(d) List-2014*, in the project corridor, this watercourse does not meet water quality standards for fish consumption or aquatic life. This segment of the Kishwaukee River (IL\_PQ-13) is impaired for fish consumption due to mercury and polychlorinated biphenyls (PCBs) and for aquatic life due to low dissolved oxygen and excessive sedimentation/siltation. Three monitoring locations have been identified in this area. No monitoring data was available for these locations, however.

The other streams and tributaries in the project corridor all meet the USEPA's water quality standards.

The INHS discussed aquatic habitat of the streams and ponds [*IL 47 (FAP 326) from Reed Road to US 14 - Addendum A* (August 2011)] and *IL 47 (FAP 326) Addendum B Reed Road to US 14* (August 2013). **Table 4-11** summarizes the habitat community type associated with these streams and ponds, as reported by the INHS.

It is anticipated that Clean Water Act permits will be required for stream crossings. Both a Section 401 permit will be required from the Illinois Environmental Protection Agency (IEPA), as well as a Section 404 permit from the U.S. Army Corps of Engineers (USACE). Permits would be obtained prior to the initiation of any work in these streams, and all permit conditions will be complied with. As part of that permit application, coordination with the USACE and USFWS will take place. All permit conditions will be complied with, including any permit conditions developed for the protection of aquatic or riparian habitat.

### 4.7.2 Generalized Impacts

#### *General Impacts*

The proposed improvements have the potential to impact water quality. Increased erosion and sedimentation during construction can result in an increase in runoff to receiving waters, resulting in elevated suspended solids concentrations. During operations, contaminants such as sediments, metals, oil and grease, and chlorides may occur on roadway surfaces and wash into adjacent streams with stormwater runoff.

The proposed improvements are expanding an existing footprint; water quality impacts as a result of the current road operations are already being experienced in the project corridor. The proposed improvements would result in a small change in the amount of impervious surface, creating additional runoff, but stormwater management improvements would also be included. It is expected that because of the stormwater management improvements, water quality in the receiving streams would actually improve (see discussion below, under *Operational Impacts*).

#### *Construction Impacts*

Impacts to water quality can occur as a result of construction. Grading and earth moving activities, the removal of vegetative cover, and other activities that expose the soils create the potential for erosion during storm events. This erosion in turn has the potential to run

off into streams, causing sedimentation impacts and increased suspended solids. In addition, in-stream construction for the installation of bridges or culverts can increase turbidity by disturbing the stream bottom.

During construction, water quality impacts would be minimized through the use of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will identify best management practices (BMP) for erosion and sediment control to be used throughout construction. The SWPPP will be developed using guidance from IDOT's Bureau of Design and Environment Manual and Section 280 of IDOT's *Standard Specification for Road and Bridge Construction* (2012). Standard BMPs will require that any in-stream construction or soil disturbing activities near streams be conducted during low or no-flow conditions.

Perimeter sediment control devices, such as silt fencing, would be installed before any soil disturbing activities. Perimeter silt fence, stabilized construction entrances, drainage inlet protection, ditch checks, diversions, sediment traps, and other appropriate BMPs will be used as defined by the SWPPP. The SWPPP will also describe appropriate responses should an accidental spill of hazardous materials occur.

Through the use of BMPs during construction, it is anticipated that there will be only minimal impacts to water quality.

### ***Operational Impacts***

Contaminants, including sediments, metals, oils, grease, and chlorides may occur on roadway surfaces as a result of vehicle operations. These contaminants can be washed from the roadway into adjacent streams during storm events. Additionally, increased impervious surfaces result in greater amounts of stormwater runoff, that may increase the velocity of the stream and increase erosion.

Stormwater management for the proposed improvements has been designed with the intention of minimizing impacts to water quality utilizing BMPs. The inside lanes and shoulders of the roadway would drain to a vegetated median; inlets placed in the median would then drain to outside ditches. Stormwater from the bridge over the Kishwaukee River headwaters, at 200 feet to 600 feet south of Dieckman Street, would be directed towards the ditches, before it is discharged to the Kishwaukee River. Stormwater from the portion of this section of the road that is adjacent to the retaining wall will have a hydrodynamic separator at the downstream end of the storm sewer.

Compensatory storage will be provided for the project throughout the corridor, their specific locations can be found on [Exhibit 4-1](#) (located in the back of this document). Compensatory storage will assimilate the extra stormwater runoff created by the increased impervious surface and prevent flooding.

Studies have indicated that detention basins and vegetated ditches can remove between 50% and 90% of suspended solids from stormwater because solids settle out when the

velocity of the stormwater is reduced<sup>5</sup>. Other pollutants, such as metals, are known to attach to the suspended solids. Furthermore, stormwater detention ponds provide for temporary storage of stormwater runoff and then release it at a controlled rate, thereby minimizing erosion in receiving streams. A detention basin will be provided at the northern end of the project corridor, its location can be found on [Exhibit 4-1](#) (located in the back of this document).

In addition to traditional stormwater management BMPs, bioswales would be installed along the outside ditches where feasible and practical. They would be installed in locations immediately upstream of surface water resources, such as streams and wetlands, to improve water quality prior to discharge to these resources. Bioswales will be developed during the final design, but proposed locations have been identified. [Exhibit 4-1](#) (located in the back of this document), indicates the proposed locations of the bioswales.

It is expected the stormwater management improvements would result in an overall reduction of contaminants that leave the right of way compared to that which is currently being experienced. The project would include several water quality BMPs that are not currently present, including stormwater drainage directed to vegetated medians followed by vegetated ditches, a new detention basin, bioswales, and a hydrodynamic separator. Operational impacts to water quality would therefore be less than is currently being experienced and stormwater runoff quality should be improved as a result of the proposed improvements.

### ***Impacts due to Maintenance Activities***

Maintenance activities associated with roadways includes deicing during the winter months and herbicide spraying for invasive/noxious weeds in the summer. IDOT and the Illinois State Toll Highway Authority use liquid calcium chloride and sodium chloride to deice roadways. The amount of deicing salt that leaves the right of way is dependent on the number and severity of winter storms as well as whether BMPs are present. The Illinois State Toll Highway Authority has installed several miles of bioswales on Interstate 294 and has been conducting studies for two years (2011-2012)<sup>6</sup>. Preliminary study results indicate the bioswales, once established, can remove approximately 50% of chloride from surface water runoff. It is anticipated that other contaminants would also be removed, but those studies are still ongoing.

The proposed stormwater BMPs for the IL 47 improvements would adequately manage the quality of the roadway runoff for total suspended solids and heavy metals. It is

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<sup>5</sup> USEPA, Storm Water Technology Fact Sheet: Vegetated Swales, September 1999. [http://water.epa.gov/scitech/wastetech/upload/2002\\_06\\_28\\_mtb\\_vegswale.pdf](http://water.epa.gov/scitech/wastetech/upload/2002_06_28_mtb_vegswale.pdf)

<sup>6</sup> Miner, James J.; Carr, Keith W.; Bryant, Kathleen E.; Higley, Melinda C.; Ackerman, Jessica R.; Plankell, Eric T.; Long, Colleen M (May 2013) *Year 2 Post-Construction Monitoring at Bioswales Along I-294 in Northern Cook County, Illinois*.

anticipated chloride reduction practices may be a condition of the 401 Water Quality Certification. The chloride reduction effort, as necessary, may include a review of current deicing practices, developing deicing salt application reduction goals, evaluation of alternative de-icing materials or blends, and aligning the chloride reducing practices that best fit roadway maintenance operations.

The impact of chlorides on surface water quality should be reduced through the use of bioswales, discussed above under *Operational Impacts*. Impacts from herbicide application would be minimized through the strict adherence to manufacturer's application instructions, that should minimize the amount of airborne drift or runoff into receiving waters. The IEPA requires a National Pollutant Discharge Elimination System (NPDES) permit if pesticides, including herbicides, are applied near Waters of the U.S. Water quality impacts would be minimized through conformity to permit requirements.

### 4.8 Groundwater Resources

McHenry County depends on groundwater for all of its potable water. All wells within the County obtain groundwater from either locally recharged shallow aquifers or deeper, regionally recharged aquifers (*Water Resources Action Plan*, County of McHenry – Division of Water Resources).

The following geologic, hydrogeologic, and well information was obtained from the Illinois State Geologic Survey's (ISGS) Preliminary Environmental Site Assessment (PESA) (ISGS: 1789, dated Feb. 3, 2009, and updated October 28, 2013 in ISGS 1789V).

#### 4.8.1 Geology

In the southernmost portion of the project corridor, between Reed Road and Foster Road, the project corridor is underlain by Ordovician-age rocks of the Maquoketa Group. Between US 14 and Foster Road, in the northern portion of the project corridor, the uppermost bedrock consists of Silurian-age dolomite of the Racine Formation. Bedrock in the area generally occurs at approximately 200 feet below the ground surface.

Surficial geology south of Foster Road is approximately 200 feet thick. Grayslake Peat, that consists predominantly of sandy peat, overlies more than 20 feet of fine-grained silts and clays of the Equality Formation. The Equality overlies more than 20 feet of the Wedron Group tills.

North of Foster Road, surficial geology ranges from 200 to 300 feet. Approximately 20 to 40 inches of loess overlies more than 20 feet of loamy and sandy tills of the Wedron Group. Lenses of sand and gravel may be present within the Wedron in this area.

In general, the potential impacts of construction projects on the local geology could include seismic or vibratory effects to existing landforms (e.g. unique geologic features, natural landmarks) or significant disturbance to the subsurface stratigraphic sequence, such as effects from extensive deep excavations or mining. The proposed roadway improvements include near surface activities only (no deep excavations), do not require the use of excessive blasting or vibration techniques and will not be conducted in the

vicinity of unique geologic features or natural landmarks. The proposed improvements would therefore not impact area geology in the project corridor.

### 4.8.2 Hydrogeology

The Kishwaukee River crosses IL 47 at two locations within the project corridor. The first location is approximately 650 feet north of Foster/Union Road (INHS Waters of the US number 6); in the area south of this crossing, the drainage direction is generally to the northwest. North of this location surficial drainage is generally towards the south.

The second location is approximately 200 feet to 600 feet south of Dieckman Street (INHS Waters of the US number 6); surficial drainage in the project corridor north of this crossing is generally in a south to southwest direction. South of this crossing, surficial drainage would be towards the north until the drainage divide is reached for this crossing, at that time surficial drainage would be towards the south. The drainage divide is expected to be in the general location of Lucas Road.

Groundwater depth data is available from only one groundwater monitoring station in the vicinity of the project corridor (monitoring station 421747088270701). At this location, groundwater depth varied from approximately 76.2 feet below ground surface to approximately 80.1 feet below ground surface for samples obtained from September 2009 through November 2011.

Excavations for the proposed build options will be near surface (< 10 feet deep) and will not extend to the groundwater table (> 75 feet deep). The proposed improvements would therefore not alter existing hydrogeology in the project corridor.

### 4.8.3 Groundwater Recharge

The project corridor is located in several groundwater recharge potential zones, where Zone 1 indicates the highest potential for groundwater recharge and Zone 7 indicates the lowest potential, as mapped by Keefer and Berg (1990). The groundwater recharge potential moves in and out of Zones 3 and 4 in the southern portion of the project corridor but becomes a Zone 1 at the northern project limit.

Per the McHenry County Water Resources Action Plan, portions of the project corridor are located within recharge areas that have a moderately high potential for aquifer contamination.

The proposed build options include the addition of highway lanes with relatively low areal coverage relative to the extensive recharge zone areas; therefore, the contribution of infiltrating surface water to underlying groundwater resources (if present) will not be significantly diminished. Furthermore, the addition of lanes to an existing roadway will not significantly increase the potential for aquifer contamination beyond the current potential already associated with existing Route 47. Therefore, the proposed improvements would not create or alter existing groundwater recharge areas.



### 4.8.4 Wellhead Protection Areas

There are no known public water wells within 1,000 feet of the project corridor's right of way. There are, therefore, no setback zones as determined by the IEPA, Division of Public Water Supplies.

The project corridor crosses two non-Community Water Supply Phase I Wellhead Protection Recharge Areas (WHPA). The first non-Community Water Supply WHPA is associated with the Crystal Woods Golf Course and is crossed by IL 47 approximately 435 to 2,315 feet south of IL 176 (East Leg). The second non-CSW WHPA is associated with the Red Barn Farm Market at 3500 S. IL 47 and is crossed by IL 47 from approximately 785 to 2,780 feet south of Hercules Road.

The proposed improvements would not impact wellhead protection areas. The proposed improvements do not create any new potential routes for groundwater pollution (e.g., dry wells, borrow pits) or any new potential sources of groundwater pollution (e.g., storage facilities for bulk road oil or de-icing salt). Any minor increases in contaminants in stormwater runoff, the result of increasing the amount of pavement, are not anticipated to result in groundwater pollution because these increases would be minimal and attenuated by stormwater management as discussed in Section 4.7.2 - *Water Quality (Operational Impacts)*.

### 4.8.5 Wells

Per the USEPA, the project corridor is not located within a designated sole source aquifer ([http://www.epa.gov/safewater/sourcewater/pubs/qrg\\_ssamap\\_reg5.pdf](http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_reg5.pdf)).

Per the ISGS, records indicate that water in the project corridor is obtained from sand and gravel at depths ranging from 55 to 345 feet below the surface. The closest public well in Huntley is approximately 2,135 feet west of the southern project limits. The closest public well in Woodstock is approximately one mile to the north-northwest of the northern project limits.

There are several private wells mapped within 200 feet of the project corridor. Most of these wells are located in the rural section of the project corridor and are most likely associated with farmsteads. Other wells not within the ISGS database may be present near the project corridor. The location of the known wells in the project corridor is shown on **Exhibit 4-1** (located in the back of this document).

All water wells that are on or adjoining the build alternatives will be properly capped and abandoned. Consequently, the proposed improvements would not create any new potential routes for groundwater pollution (e.g., dry wells, borrow pits) or any new potential sources of groundwater pollution (e.g., storage facilities for bulk road oil or de-icing salt). The proposed improvements are therefore not anticipated to result in any impacts to any wells, and the project would not be considered a new potential secondary source of groundwater pollution as defined in the Illinois Environmental Protection Act (415 ILCS 5/3.350 and 415 ILCS 5/3.355).

Accordingly, the project would not be subject to compliance with the minimum setback requirements for community water supply wells or other potable water supply wells as set forth in 415 ILCS 5/14, et seq.

### 4.8.6 Groundwater Quality

There is little published data on groundwater quality in the project corridor. One groundwater monitoring station is located approximately one mile west of the IL 47 in the northern portion of the project corridor. This groundwater monitoring station (421747088270701) has had only one sample taken. Laboratory analysis on the sample, taken on November 11, 2011, indicated that all parameters for which analyses were done met Illinois Title 35 groundwater quality standards for Class I, Potable Resource Groundwater.

Groundwater monitoring is occurring at the Village of Marengo's two community supply wells, Well #6 (IEPA ID#: 20193) and Well #7 (IEPA ED#: 00849). Sampling was conducted on Oct. 9, 1985, Nov. 12, 1986, and July 21, 1999. Laboratory analysis of samples indicated that the groundwater met all groundwater quality standards with the exception of an exceedance in manganese in Well #6. This exceedance was not considered a violation, however, because this level is within the normal background levels for manganese found in Illinois. The Village of Marengo is approximately 8.5 miles west of the project corridor.

Per the *Illinois Integrated Water Quality Report and Section 303(d) List-2008; Clean Water Act Sections 303(d), 305(b) and 314; Water Resource Assessment Information and Listing of Impaired Waters*, groundwater in the project corridor is in full support of use.

The proposed improvements would not create any new potential routes for groundwater pollution (e.g., dry wells, borrow pits) or any new potential sources of groundwater pollution (e.g., storage facilities for bulk road oil or de-icing salt). Any minor increases in contaminants in stormwater runoff, the result of increasing the amount of pavement, are not anticipated to result in groundwater pollution because these increases would be minimal and attenuated as stormwater is filtered through the ground. Additionally, the proposed improvements will include measures to protect water quality, such as vegetated ditches, bioswales, and stormwater basins that will reduce the contaminant loads prior to stormwater percolating through the soil. (See *Section 4.7.2 - Water Quality* for a description of the stormwater management.)

## 4.9 Floodplains

Federal Executive Order 11988, Floodplain Management, requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

Floodplains provide numerous values and benefits, including the storage of excess water during storm events, water quality benefits such as the filtering of nutrients and sediments, recharge of groundwater through infiltration, fish and wildlife habitat, and open space/recreational opportunities.

A regulatory floodplain is an area that is subject to flooding during a 100-year frequency storm. Regulatory floodplains within the project corridor are associated with the Kishwaukee River, the South Branch of the Kishwaukee River, Kishwaukee Creek, and several unnamed tributaries to these waterways. All of these floodplains are located within the Kishwaukee River drainage basin, HUC watershed 7090006. The locations of these floodplains are shown on [Exhibit 4-1](#) (located in the back of this document), and summarized in [Table 4-12](#).

**Table 4-12: Floodplain Locations and Impacts in the Project Corridor**

Floodplain Location	Waterway Association	Impacts (acres)	Transverse or Longitudinal Crossing	Location Page, Exhibit 4-1
Talamore Blvd, 350 south to 300 feet north of road	Tributary to South Branch Kishwaukee River	2.30	transverse	2
Ackman Road, 450 feet south of road	Tributary to South Branch Kishwaukee River	0.51	transverse	3
Ackman Road, 700 feet to 850 north of road	Kishwaukee Creek	2.13	transverse	3-4
Union/Foster Roads, adjacent to through 800 feet north of road	Kishwaukee River	7.15	transverse	6-7
Pleasant Valley Road, 450 feet north to 1,450 feet north of road	Intermittent tributary to Kishwaukee River	4.64	transverse	9-10
Hercules Road to Novean Parkway	Unnamed Tributary to Kishwaukee River	1.34	transverse	13-14
Novean Parkway, 350 feet to 700 feet north of road	Kishwaukee River	0.71	transverse	14
IL Route 176, West Leg, 850 feet west of Rt 47	Intermittent tributary to Kishwaukee River	0.05	longitudinal	17
<b>Total</b>		<b>18.83</b>		

Impacts to floodplains would be minimized in several ways:

- stream crossings will be designed to minimize the amount of fill within the floodplain
- road crossings avoided all but one longitudinal crossings
- the one longitudinal crossing is associated with IL 176 and cannot be avoided because IL 176 is longitudinal to the floodplain; impacts are minimal as only 0.05 acres of the very edge of the floodplain will be impacted
- at the Kishwaukee River crossing between Novean Parkway and Dieckman Street, retaining walls are proposed on both the southbound and northbound sides of IL 47. The proposed retaining walls reduced impacts to existing wetlands and floodplains on either side of IL 47.

Compensatory storage will be provided at a 1:1 ratio for fill in the floodplain. For fill that will occur with the floodplain associated with the Kishwaukee River between Novean Parkway and Dieckman Street, compensatory storage will be provided at the southeast corner of IL 47 and Cobblestone Way. The total compensatory storage provided for this impact will be 1.58 acre-feet between the normal and 10-year water surface elevations (WSE's), and 1.83 acre-feet between the 10 and 100-year WSE's. Stormwater detention storage will also be provided to meet McHenry County requirements of maintaining the allowable release rate at 0.15 cubic feet per second/acre for the added impervious area for the 100-year storm event. A total of 1.27 acre-feet of detention storage will be provided within a proposed basin located at the southeast corner of IL 47 and Cobblestone Way (just west of the proposed compensatory storage site).

The project will provide stormwater detention and compensatory storage to mitigate fill in all of the floodplains in the project corridor. Detention would be provided in a combination of oversized pipes with control structures, ditches with ditch checks, and on-site detention basins. Detention volume would be provided for the increased runoff from a 10-year storm event in ditches or oversized pipes. Detention volume for the increased runoff from the 100-year event would be stored in on-site basins. The proposed locations for the on-site basins are identified on [Exhibit 4-1](#) (located in the back of this document), and summarized below.

- 150 feet north of Talamore Boulevard, east side of IL 47
- 750 feet north of Ackman Road, east side of IL 47
- 850 feet north of Foster/Union Road, east side of IL 47
- 1,000 feet south of IL 176 (West Leg), east side of IL 47
- 100 feet south of Cobblestone Way, east side of IL 47

An IDNR, Office of Water Resources permit will be obtained for any construction in the regulatory floodplain (tributary area no less than 1 square mile) prior to any work within the floodplain.

Impacts from the loss of floodplain will not result in increased flood risks due to the incorporation of detention and compensatory storage. Natural and beneficial values, such as wildlife habitat and water quality functions, will not be substantially impacted because these values are already minimized due to the presence of the existing road. The proposed roadway improvements will not promote incompatible floodplain development any more than currently exists.

### 4.10 Wetlands

Executive Order 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. The USACE regulates the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean Water Act. Wetlands are also protected under the Illinois' Interagency Wetland Protection Act of 1989.

#### *Project Corridor Wetlands*

In order to ensure compliance with Executive Order 11990 and the Clean Water Act, wetland delineations were performed by INHS May 9-12, June 23-24, and Aug 6, 2009. Additional delineations were done in June 2011 and June/July 2013 for select portions of the corridor. In total, INHS investigated 74 locations and determined that 63 of the areas are wetlands. One additional ADID wetland is located in the project corridor that was not investigated by INHS. The locations of the wetland sites identified during all delineation efforts are included in [Exhibit 4-1](#) (located in the back of this document). Most of the wetlands are highly disturbed due to historic farming activities and current urbanization. Several of the wetlands have been identified by McHenry County as ADID wetlands, most for having high functional value (stormwater storage). Two wetlands have been identified as having high habitat value. These two wetlands are:

- INHS Wetlands 27 and 32, coincides with ADID wetland K1008; FQIs range from 0.5 to 17.1; mean Cs range from 0.2 to 3.4
- INHS Wetland 42, coincides with ADID wetland K984, FQI of 10.5, mean C of 2.3

INHS determined that one of the wetlands qualifies as a High Quality Aquatic Resource under USACE Chicago District Regional Permit Program because of its high Mean-C value. INHS assessed Wetland 12 on three occasions, determining the Mean-C value as ranging between 2.3 to 4.0 and the FQI from 6.9 to 15.5. Based on the August 2013 delineation, the Mean C of 4.0 qualifies this wetland as being a High Quality Aquatic Resource.

There are numerous wetlands located within the project corridor. [Table 4-13](#) summarizes these wetlands and provides information on the community type, functions performed, dominant vegetation, and floristic quality as determined by INHS. For those wetlands that were also identified on the National Wetland Inventory map, the table provides the code for the wetland type as defined by Cowardin *et al.* (Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. *Classification of wetlands and deepwater habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C).

Table 4-13: Wetlands in the Project Corridor

Site No.	NWI Code	Community Type	Area (acre)	>50% <sup>1</sup>	FQI	Mean C	ADID <sup>2</sup>	Functions Performed	USACE Jurisdictional	Dominant Plant Species	Waters Type <sup>3</sup>
2	PEMC	marsh	1.81	no	6.2	1.6	No	surface water storage, aquatic and terrestrial wildlife habitat	yes	<i>Phalaris arundinacean</i> (reed canary grass) <i>Polygonum</i> species, <i>Typha angustifolia</i> (narrow-leaved cattail)	
3	PSS1/PEMC	marsh	0.24	no	11.0	2.5	No	surface water storage, aquatic and limited terrestrial wildlife habitat	yes	<i>Agropyron repens</i> (quack grass), reed canary grass, narrow-leaved cattail	
3	PSS1/PEMC	marsh	approx. 15	no	11.0	2.5	K1453 high functional value	surface water storage, aquatic and limited terrestrial wildlife habitat	yes	<i>Agropyron repens</i> (quack grass), reed canary grass, narrow-leaved cattail	
4		marsh	0.57	yes	7.8	1.8	No	surface water storage, some wildlife habitat	yes	<i>Salix interior</i> (sandbar willow), reed canary grass	
5		marsh	1.51	no	7.5	1.8	No	surface water storage, limited wildlife habitat	no	<i>Aster simplex</i> (panicked aster), narrow-leaved cattail	isolated
6	PEMC	marsh, wet meadow	0.58	yes	11.0	2.8	No	surface water storage, part of a larger complex of wildlife habitats	yes	reed canary grass	RPWWD
7		marsh	0.17	no	6.9	1.9	No	surface water storage, limited wildlife habitat	yes	<i>Lersia oryzoides</i> (rice cut grass), <i>Scirpus fluvialtilis</i> (river bulrush), narrow-leaved cattail	
8		marsh	0.36	yes	9.6	2.2	No	surface water storage, limited wildlife habitat	yes	narrow-leaved cattail	
9	PFO1C	forested	approx. 2	no	10.9	2.7	No	surface water storage, aquatic and terrestrial wildlife habitat	yes	<i>Salix fragilis</i> (crack willow), sandbar willow, reed canary grass	
10		marsh	0.80	yes	7.8	2.2	No	surface water storage, limited wildlife habitat	yes	reed canary grass, narrow-leaved cattail	
11		marsh	0.18	yes	6.9	2.1	No	surface water storage, very limited wildlife habitat	yes	reed canary grass, <i>Phragmites australis</i> (common reed)	
12	PEMCDf	wet meadow	approx. 206	no	15.5 6.9	2.3 4.0	No	surface water storage, wildlife habitat	yes	reed canary grass	RPWWN
13	POW Hx/PEMCDf	shallow pond	approx. 5	no	8.1	3.6	No	surface water storage, primary aquatic wildlife habitat	yes	<i>Potamogeton crispus</i> (beginner's pondweed), reed canary grass	
14		farmed	0.88	yes	1.6	0.7	No	surface water storage, limited wildlife habitat	yes	<i>Acnida altissima</i> (water hemp), <i>Cyperus esculentus</i> (field nut sedge)	
15		wet meadow	approx. 17	no	11.3	2.5	No	surface water storage, limited wildlife habitat	yes	panicked aster, reed canary grass, <i>Ranunculus sceleratus</i> (cursed buttercup)	

## Chapter 4 Environmental Resources, Impacts, and Mitigation

Site No.	NWI Code	Community Type	Area (acre)	>50% <sup>1</sup>	FQI	Mean C	ADID <sup>2</sup>	Functions Performed	USACE Jurisdictional	Dominant Plant Species	Waters Type <sup>3</sup>
16		marsh	Approx. 2	no	3.0	1.1	No	surface water storage, limited wildlife habitat	yes	<i>Alisma subcordatum</i> (common water plantain), <i>Alopecurus carolinianus</i> (annual foxtail), cursed buttercup, narrow-leaved cattail	
17		wet meadow	1.61	yes	5.7	1.3	No	surface water storage, limited wildlife habitat	yes	reed canary grass	
18		farmed	0.38	yes	4.0	1.8	no	some surface water storage, minimal wildlife habitat	yes	<i>Polygonum</i> species, cursed buttercup, <i>Veronica peregrine</i> (purslane speedwell)	
19		marsh	approx 14	no	9.4	2	No	seasonal aquatic habitat mixed with terrestrial habitat, copious amounts of surface water storage	yes	common water plantain, annual foxtail, cursed buttercup, narrow-leaved cattail	RPWWN
20	PEMC	floodplain forest, marsh, wet meadow	2.64	yes	14.8	3.2	No	surface water storage, wooded wildlife habitat	yes	<i>Acer negundo</i> (box elder), reed canary grass, <i>Populus deltoides</i> (eastern cottonwood), narrow-leaved cattail	RPWWD
21	PEMC	wet meadow	approx 12	no	9.2	2.1	No	surface water storage, wildlife habitat	yes	narrow-leaved cattail	
23		wet meadow	0.04	yes	3.5	1.8	No	some surface water storage, minimal wildlife habitat	no	reed canary grass	isolated
25		forested	0.57	yes	9.4	2	No	surface water storage, wildlife habitat	yes	<i>Salix nigra</i> (black willow), sandbar willow, common reed	
27		forested	approx 27	yes	15.8	3.4	K1008 high habitat value	surface water storage, aquatic and terrestrial wildlife habitat  INHS wetlands 27 and 32 are different portions of the same ADID wetland K1008	yes	<i>Fraxinus pennsylvanica</i> (green ash), <i>Rhamnus cathartica</i> (common buckthorn), <i>Glyceria septentrionalis</i> (floating manna grass), reed canary grass, <i>Rhanunculus longirostris</i> (longbeak buttercup), <i>Typha latifolia</i> (broad-leaved cattail), narrow-leaved cattail	
28		forested	0.17	yes	13.3	3.3	No	surface water storage; minimal, low quality wildlife habitat	no	greed ash, <i>Carex vulpinoidea</i> (fox sedge), <i>Eleocharis erythrodopa</i> (red-rooted spike rush), <i>Elocharis smallii</i> (marsh spike rush), green ash, reed canary grass, common buckthorn, <i>Ulmus americana</i> (American elm)	
29	PEMC	wet meadow	1.16	yes	4.0	1.8	No	surface water storage, limited wildlife habitat, livestock watering	yes	<i>Agrostis alba</i> (redtop), red-rooted spike rush, <i>Ranunculus septentrionalis</i> (swamp buttercup)	
30		forested	0.33	yes	6.7	1.8	No	surface water storage, wildlife habitat	yes	black willow, sandbar willow, reed canary grass	

## Chapter 4 Environmental Resources, Impacts, and Mitigation

Site No.	NWI Code	Community Type	Area (acre)	>50% <sup>1</sup>	FQI	Mean C	ADID <sup>2</sup>	Functions Performed	USACE Jurisdictional	Dominant Plant Species	Waters Type <sup>3</sup>
32 east	PEMC	wet meadow	approx 27	yes	6.3	1.8	K1008 high habitat value	surface water storage, wildlife habitat  INHS wetlands 27 and 32 are different portions of the same ADID wetland K1008	yes	reed canary grass, narrow-leaved cattail	NRPWW
32 west	PEMC	wet meadow	0.37	yes	6.3	1.8	No	surface water storage, wildlife habitat	yes	reed canary grass, narrow-leaved cattail	NRPWW
33 east	PEMC	wet meadow	1.15	no	4.0	2.3	No	surface water storage, wildlife/aquatic habitat	yes	reed canary grass	
33 west	PEMC	wet meadow	approx 9	no	4.0	2.3	K1006 high functional value	surface water storage, wildlife/aquatic habitat	yes	reed canary grass	
34	PEMC	forested, wet meadow	3.43	no	13.7	2.6	no	surface water storage, wildlife/aquatic habitat	yes	box elder, crack willow, black willow, sandbar willow, reed canary grass	outside project limits
35		wet meadow	0.36	yes	6.1	1.7	no	some surface water storage, minimal wildlife habitat	yes	red-rooted spike rush, reed canary grass, <i>Poa pratensis</i> (Kentucky blue grass)	outside project limits
37		marsh	unknown	unknown	unknown	unknown	no	some surface water storage, limited wildlife habitat	unknown	narrow-leaved cattail	outside project limits
39		farmed	0.70	yes	0.5	0.2	no	surface water storage, minimal wildlife habitat	yes	water hemp, <i>Ambrosia trifida</i> (giant ragweed)	outside project limits
40	PEMC	wet meadow	2.34	no	13.7	2.7	no	surface water storage, wildlife habitat	yes	reed canary grass	outside project limits
42	PEMC	wet meadow	approx 6	yes	10.5	2.3	K984 high habitat value	surface water storage, wildlife habitat	yes	reed canary grass	
43	PEMC	marsh	5.09	yes	17.1	3.4	no	fair quality wildlife habitat and drainage was for surface water	yes	reed canary grass, narrow-leaved cattail	
44	PEMC	marsh	1.88	no	8.7	1.7	no	surface water storage, wildlife habitat	no	common water plantain, narrow-leaved cattail	isolated
45	PEMC / PFO1 Cd	marsh/pond, wet meadow	approx 53	no	7.5	2.9	K925 high functional value	aquatic and terrestrial wildlife habitat complex, copious amounts of storm water storage  INHS wetlands 45 and 46 are different portions of the same ADID wetland K925	yes	reed canary grass, narrow-leaved cattail	RPWWD



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Site No.	NWI Code	Community Type	Area (acre)	>50% <sup>1</sup>	FQI	Mean C	ADID <sup>2</sup>	Functions Performed	USACE Jurisdictional	Dominant Plant Species	Waters Type <sup>3</sup>
46 east		wet shrubland	approx 53	no	4.2	1.3	K925 high functional value	surface water storage, wildlife habitat INHS wetlands 45 and 46 are different portions of the same ADID wetland K925	yes	sandbar willow, reed canary grass	
46 west		wet shrubland	0.44	no	4.2	1.3	no	surface water storage, wildlife habitat	yes	sandbar willow, reed canary grass	
47	PEMC	farmed	0.27	no	3.6	1.6	no	some surface water storage, limited wildlife habitat	no	cursed buttercup	Isolated
48		wet meadow	0.36	yes	8.9	2.6	no	surface water storage, wildlife habitat	no	reed canary grass	isolated
49		marsh	approx 13	no	6.0	1.9	no	surface water storage, terrestrial/aquatic wildlife habitat	no	reed canary grass, narrow-leaved cattail	isolated
52		wet meadow	0.55	yes	5.0	1.4	no	surface water storage, wildlife habitat	no	reed canary grass	isolated
53	PEMC	wet meadow	1.46	yes	2.8	2	no	surface water storage, wildlife habitat	no	reed canary grass	isolated
54	PEMC	wet meadow	approx 3	no	5.8	1.6	no	surface water storage, wildlife habitat	yes	panicked aster, reed canary grass	
55		farmed	0.20	no	0.6	0.3	no	limited wildlife habitat	no	<i>Zea mays</i> (corn)	isolated
56 east	PEMC d/PEMB	wet meadow	approx 8	no	5.3	2.2	K711 high functional value	surface water storage, wildlife habitat, acts as buffer for Kishwaukee River tributary	yes	reed canary grass	
56 west	PEMC d/PEMB	wet meadow	1.52	no	5.3	2.2	no	surface water storage, wildlife habitat, acts as buffer for Kishwaukee River tributary	yes	reed canary grass	
57	PEMC	marsh/wet meadow/shrub	approx 17	no	9.4	2.2	K663 high functional value	copious amounts of surface water storage, wildlife habitat, acts as buffer for Kishwaukee River	yes	sandbar willow, reed canary grass, narrow-leaved cattail	
58	PEMC	wet meadow	approx 0.5	no	6.4	2.4	no	surface water storage, wildlife habitat	yes	reed canary grass	
59	PEMC	marsh/wet meadow	approx 10	no	6.3	2.1	K633 high functional value	surface water storage, wildlife habitat	yes	reed canary grass, narrow-leaved cattail	
60		marsh	0.09	yes	11.5	3.1	no	not determined by INHS	yes	red-rooted spike rush, narrow-leaved cattail	NRPWW
61	POW Hh	pond	approx 1	yes	12.7	3.5	no	not determined by INHS	yes	longbeak buttercup, common buckthorn, <i>Salix amygdaloides</i> (peach-leaved willow), narrow-leaved cattail	NRPWW

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Site No.	NWI Code	Community Type	Area (acre)	>50% <sup>1</sup>	FQI	Mean C	ADID <sup>2</sup>	Functions Performed	USACE Jurisdictional	Dominant Plant Species	Waters Type <sup>3</sup>
62		wet meadow	0.01	yes	8.3	3.1	no	not determined by INHS	yes	<i>Carex pallita</i> (wooly sedge), reed canary grass	NRPWW
63	POW Hx	marsh	0.04	yes	7.7	2.6	no	not determined by INHS	yes	reed canary grass, narrow-leaved cattail	RPWWD
64		pond	0.13	yes	10.7	3.6	no	not determined by INHS	yes	<i>Elodea canadensis</i> (elodea)	RPWWD
65	PEMC	Marsh	0.23	yes	6.8	2.6	no	not determined by INHS	no	red-rooted spike rush, narrow-leaved cattail	isolated
66	PEMC	Marsh	1.64	no	7.4	1.6	no	not determined by INHS	no	reed canary grass, common reed, narrow-leaved cattail	isolated
67		Marsh	0.36	yes	7.5	1.9	no	not determined by INHS	yes	common reed	NRPWW
68		Farmed	0.04	yes			no	not determined by INHS	yes	corn, broad-leaved cattail, field nut sedge	RPWWN
69		Farmed	0.28	yes			no	not determined by INHS	yes	corn, broad-leaved cattail	RPWWD
70		wet meadow	0.05	no	3.1	1.4	no	not determined by INHS	yes	reed canary grass, horned bladderwort, giant ragweed	NRPWW
71	PEMC	floodplain forest	1.35	yes	11.0	2.2	no	not determined by INHS	yes	box elder, common buckthorn, giant ragweed, panicled aster	RPWWN
73		wet meadow	0.68	no	7.2	2.2		not determined by INHS	yes	reed canary grass, common reed	RPWWD
74		Farmed	0.26	yes			no	not determined by INHS	yes	corn	RPWWN
ADID K669		farmed, forested	approx 17				not determined	K669 high functional value	not determined by INHS	yes	
ADID K692		wet meadow, forested	approx 13				not determined	K692 high functional value	not determined by INHS	yes	outside project limits
ADID K820		wet meadow, forested	approx 10				not determined	K820 high functional value	not determined by INHS	yes	outside project limits

<sup>1</sup> In INHS's best professional judgment, more than 50% of the total site area is within the ESR project limits

<sup>2</sup> Advanced Identification (ADID) High Habitat or High Functional Value wetland

<sup>3</sup> As determined by the INHS, Waters type:

- RPW - relatively permanent waters that flow directly or indirectly to traditionally navigable waters
- RPWWN - wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly to traditional navigable waters
- Isolate - isolated waters, including isolated wetlands
- NRPWW - wetlands adjacent to non-RPWs that flow directly or indirectly to traditional navigable waters
- RPWWD - wetlands directly abutting RPWs that flow directly or indirectly to traditional navigable waters

**Impacts**

The proposed improvements will impact a total of 25.77 acres of wetlands; INHS suggested that 21.16 acres would be considered jurisdictional by the USACE, and 4.61 acres are isolated and would not be considered jurisdictional. For those wetlands not jurisdictional by the USACE, they are still subject to the Illinois Interagency Wetlands Policy Act and will therefore require mitigation. Included in these totals, the proposed improvements would impact 0.67 acres of farmed wetlands. (Farmed wetlands are those that are artificially drained or those that hydrology is such that agricultural production is possible during dryer years. If farmed wetlands were altered prior to 1985, they are considered Prior Converted wetlands and are not subject to regulation under the Clean Water Act.)

Wetland habitat in the project corridor is primarily of low quality due to poor vegetative diversity. There are several ADID wetlands identified in the project corridor. Most have been identified as ADID wetlands based on their high functional value, usually stormwater storage. Two wetlands in the project vicinity have been identified as ADID based on their high habitat value; ADID wetland K1008 (INHS Wetlands 27 and 32) is located at the intersection of IL 176 (East Leg) in the northeast quadrant; ADID wetland K984 (INHS Wetland 42) is located adjacent to IL 176 (West Leg), approximately 750 feet west of IL 47. ADID wetland K1008 will have 0.69 acres of impacts; ADID wetland K984 will have 0.08 acres of wetland impacts.

**Table 4-14** summarizes the wetland impacts, provides information on the jurisdictional status of the wetland, the functions it performs, the floristic quality, the ADID number (if applicable) of the wetland, and provides the proposed amount of mitigation that would be provided.

**Table 4-14: Wetland Impacts**

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID <sup>1</sup>	Special Notes	USACE Jurisdictional	Impacts (acre)	Proposed Mitigation Ratio (in basin)	Proposed Mitigation Acreage	Proposed Mitigation Ratio (out of basin)	Proposed Mitigation Acreage
2	1.81	Yes	6.2	1.6		marsh	Yes	0.06	1.5 : 1	0.09	2.0 : 1	0.12
3 east	0.24	No	11.0	2.5		marsh	yes	0.24	1.5 : 1	0.36	2.0 : 1	0.48
3 west	approx 15	Yes	11.0	2.5	K1453 high functional value	marsh	yes	0.29	3.0 : 1	0.87	3.0 : 1	0.87
4	0.57	Yes	7.8	1.8		marsh	yes	0.57	1.5 : 1	0.86	2.0 : 1	1.14
5	1.51	Yes	7.5	1.8		marsh	no	0.05	1.5 : 1	0.08	2.0 : 1	0.10
6	0.58	Yes	11.0	2.8		marsh, wet meadow	yes	0.25	1.5 : 1	0.38	2.0 : 1	0.50
8	0.36	Yes	9.6	2.2		marsh	yes	0.25	1.5 : 1	0.38	2.0 : 1	0.50
9	approx 2	Yes	10.9	2.7		forested	yes	0.23	1.5 : 1	0.35	2.0 : 1	0.46
10	0.80	Yes	7.8	2.2		marsh	yes	0.33	1.5 : 1	0.50	2.0 : 1	0.66
11	0.18	No	6.9	2.1		marsh	yes	0.18	1.5 : 1	0.27	2.0 : 1	0.36
12	approx 206	yes	15.5	4.0		wet meadow	yes	4.94	5.5 : 1	27.17	5.5 : 1	27.17
13	approx 5	yes	8.1	3.6		shallow pond	yes	0.48	1.5 : 1	0.72	2.0 : 1	0.96

## Chapter 4 Environmental Resources, Impacts, and Mitigation

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID <sup>1</sup>	Special Notes	USACE Jurisdictional	Impacts (acre)	Proposed Mitigation Ratio (in basin)	Proposed Mitigation Acreage	Proposed Mitigation Ratio (out of basin)	Proposed Mitigation Acreage
14	0.88	yes	1.6	0.7		farmed	yes	0.40	1.5 : 1	0.60	2.0 : 1	0.80
15	approx 17	yes	11.3	2.5		wet meadow	yes	0.38	1.5 : 1	0.57	2.0 : 1	0.76
16	approx 2	yes	3.0	1.1		marsh	yes	0.28	1.5 : 1	0.42	2.0 : 1	0.56
17	1.61	yes	5.7	1.3		wet meadow	yes	0.68	1.5 : 1	1.02	2.0 : 1	1.36
18	0.38	yes	4.0	1.8		farmed	yes	0.08	1.5 : 1	0.12	2.0 : 1	0.16
19	approx 14	yes	9.4	2.0		marsh	yes	0.80	1.5 : 1	1.20	2.0 : 1	1.60
20	2.64	yes	14.8	3.2		Floodplain forest, marsh, wet meadow	yes	0.34	1.5 : 1	0.51	2.0 : 1	0.68
21	approx 12	yes	9.2	2.1		wet meadow	yes	0.03	1.5 : 1	0.05	2.0 : 1	0.06
23	0.04	no	3.5	1.8		wet meadow	no	0.04	1.5 : 1	0.06	2.0 : 1	0.08
25	0.57	no	9.4	2.0		forested	yes	0.57	1.5 : 1	0.86	2.0 : 1	1.14
27	approx 27	yes	15.8	3.4	K1008 high habitat value <sup>2</sup>	forested	yes	0.19	3.0 : 1	0.57	3.0 : 1	0.57
28	0.17	no	13.3	3.3		forested	no	0.17	1.5 : 1	0.26	2.0 : 1	0.34
32 east	approx 27	yes	6.3	1.9	K1008 high habitat value <sup>2</sup>	wet meadow	yes	0.50	3.0 : 1	1.50	3.0 : 1	1.50
32 west	0.37	yes	6.3	1.9		wet meadow	yes	0.15	1.5 : 1	0.23	2.0 : 1	0.30
33 east	1.15	yes	4.0	2.3		wet meadow	yes	0.47	1.5 : 1	0.71	2.0 : 1	0.94
33 west	approx 9	yes	4.0	2.3	K1006 high functional value	wet meadow	yes	0.75	3.0 : 1	2.25	3.0 : 1	2.25
42	approx 6	yes	10.5	2.3	K984 high habitat value	wet meadow	yes	0.08	3.0 : 1	0.24	3.0 : 1	0.24
43	5.09	yes	17.1	3.4		marsh	yes	0.73	1.5 : 1	1.10	2.0 : 1	1.46
44	1.88	yes	8.7	1.7		marsh	no	0.05	1.5 : 1	0.08	2.0 : 1	0.10
45	approx 53	yes	7.5	2.9	K925 high functional value	marsh/pond, wet meadow	yes	0.83	1.5 : 1	1.25	2.0 : 1	1.66
46 east	approx 53	yes	4.2	1.3	K925 high functional value	wet shrubland	yes	0.54	3.0 : 1	2.49	3.0 : 1	2.49
46 west	0.44	no	4.2	1.3		wet shrubland	yes	0.44	1.5 : 1	0.66	2.0 : 1	0.88
47	0.27	yes	3.6	1.6		farmed	no	0.06	1.5 : 1	0.09	2.0 : 1	0.12
48	0.36	yes	8.9	2.6		wet meadow	no	0.36	1.5 : 1	0.54	2.0 : 1	0.72

## Chapter 4 Environmental Resources, Impacts, and Mitigation

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID <sup>1</sup>	Special Notes	USACE Jurisdictional	Impacts (acre)	Proposed Mitigation Ratio (in basin)	Proposed Mitigation Acreage	Proposed Mitigation Ratio (out of basin)	Proposed Mitigation Acreage
49	approx 13	yes	6.0	1.9		marsh	no	2.38	1.5 : 1	3.57	2.0 : 1	4.76
52	0.55	no	5.0	1.4		wet meadow	no	0.55	1.5 : 1	0.83	2.0 : 1	1.10
53	1.46	yes	2.8	2.0		wet meadow	no	0.84	1.5 : 1	1.26	2.0 : 1	1.68
54	approx 3	yes	5.8	1.6		wet meadow	yes	1.16	1.5 : 1	1.74	2.0 : 1	2.32
56 east	approx 8	yes	5.3	2.2	K711 high functional value	wet meadow	yes	0.55	3.0 : 1	1.65	3.0 : 1	1.65
56 west	1.52	yes	5.3	2.2		wet meadow	yes	0.46	1.5 : 1	0.69	2.0 : 1	0.92
57	approx 17	yes	9.4	2.2	K663 high functional value	marsh/wet meadow/shrub	yes	1.28	3.0 : 1	3.84	3.0 : 1	3.84
58	approx 0.5	yes	6.4	2.4		wet meadow	yes	0.05	1.5 : 1	0.08	2.0 : 1	0.10
59	approx 10	yes	6.3	2.1	K633 high functional value	marsh/wet meadow	yes	0.68	3.0 : 1	2.04	3.0 : 1	2.04
62	0.01	no	8.3	3.1		wet meadow	yes	0.01	1.5 : 1	0.02	2.0 : 1	0.02
63	0.04	no	7.7	2.6		marsh	yes	0.04	1.5 : 1	0.06	2.0 : 1	0.08
64	0.13	no	10.7	3.6		pond	yes	0.13	1.5 : 1	0.20	2.0 : 1	0.26
65	0.23	yes	6.8	2.6		marsh	no	0.23	1.5 : 1	0.35	2.0 : 1	0.46
66	1.64	yes	7.4	1.6		marsh	no	0.05	1.5 : 1	0.08	2.0 : 1	0.10
67	0.36	yes	7.5	1.9		marsh	yes	0.04	1.5 : 1	0.06	2.0 : 1	0.08
68	0.04	yes				farmed	yes	0.01	1.5 : 1	0.02	2.0 : 1	0.02
71	1.35	yes	11.0	2.2		floodplain forest	yes	0.33	1.5 : 1	0.50	2.0 : 1	0.66
73	0.68	yes	7.2	2.2		wet meadow	yes	0.07	1.5 : 1	0.11	2.0 : 1	0.14
not IDed by INHS	approx 17	yes	not determined		K669 high functional value	farmed, forested	yes	0.12	3.0 : 1	0.36	3.0 : 1	0.36
<b>Wetland Impact Totals</b>								<b>25.77</b>		<b>67.24</b>		<b>74.64</b>

<sup>1</sup> Advanced Identification (ADID) High Habitat or High Functional Value wetland

### *Avoidance/Minimization/Compensatory Mitigation*

The proposed improvements were designed to minimize the amount of wetland impacts to the greatest extent practicable. Based on multiple impact evaluations, the alternatives with the least number of wetland impacts were selected. Once the alternatives were selected, they were further refined in order to minimize impacts. At the crossing of the Kishwaukee River headwaters, retaining walls are proposed to reduce wetland impacts by 0.7 acres. The median in the project corridor was narrowed from 50 feet to 30 feet between Rainsford Drive and Hercules Road to reduce wetland impacts by two acres.

For those wetland impacts that cannot be avoided, compensatory mitigation must be provided. Mitigation ratios are determined by both the USACE and the IDNR. The USACE mitigation ratios are a minimum of 1.5 acres for every 1.0 acre of impact for low quality wetlands and 3.0 acres or higher for every 1.0 acre of impact for high quality aquatic resources or ADID wetlands. Under the Programmatic Agreement that IDOT has with the IDNR for compliance with the Interagency Wetland Protection Act, mitigation ratios are determined based on whether or not the mitigation is provided within the watershed basin of the impacted wetland. For wetlands that are mitigated for within the basin, a ratio of 1.5 acres to 1.0 acre is required. For wetlands that are mitigated for outside the basin, a ratio of 2.0 acres to 1.0 acre is required.

Compensatory mitigation for the unavoidable wetland impacts will be provided. The appropriate mitigation ratios and methods will be finalized during Phase II design engineering when the Section 404 permit is applied for. At this time, it is estimated that either 67.4 acres (in basin mitigation) or 74.64 acres (out of basin mitigation) of wetland mitigation will be provided for the 25.77 acres of impacts. IDOT will provide compensatory mitigation in an approved wetland mitigation bank in coordination with the USACE and IDNR. Other mitigation options and locations will also be considered. In addition, impacts to Waters of the U.S. would also be mitigated for.

### *Only Practicable Alternative Finding*

Federal Executive Order 11990 requires the avoidance of adverse impacts to wetlands wherever there is a practicable alternative. The proposed improvements were designed to avoid and minimize wetland impacts to the greatest extent possible. There are no practicable alternatives that could avoid wetland impacts entirely. The roadway corridor is constrained to the setting where the current IL 47 is located. Construction on an entirely new corridor would be cost prohibitive, and would in all likelihood result in greater wetland impacts. All impacts have been avoided and minimized to the greatest extent practicable, as discussed above. Based upon these considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

#### 4.11 Special Waste

The ISGS performed three PESAs for the project corridor. The third PESA, ISGS #1789V, dated October 28, 2013, covered the entire project corridor and incorporated results of the earlier two documents. Several Recognized Environmental Concerns (REC) were identified. Per PESA #1789V, 32 properties were identified with RECs.

**What is a Preliminary Environmental Site Assessment (PESA)?**

A PESA is a study conducted to determine if there is a potential for contaminated soils or groundwater in the project vicinity. Public records are examined and a site visit conducted to assesses the right-of-way and adjacent properties to determine if there are any natural or man-made hazards that might have resulted in contamination.

Copies of IDOT memorandums acknowledging the PESAs can be found in [Appendix A](#).

Based on the results from the various PESAs, if the Phase II determines that the project will require excavation, subsurface utility relocation, right of way purchase/easement, or building demolition at any of the identified RECs, then a Preliminary Site Investigation will be required.

It is the responsibility of Phase II design engineer to determine if any of the PESA sites or right of way adjacent to the PESA site will be impacted with the proposed work and/or if any right of way will be required at any of the PESA sites. Any acquisitions shall be discussed with the Bureau of Land Acquisition prior to responding to the PESA to request further studies.

#### 4.12 Special Lands

##### 4.12.1 Section 6(f)

Section 6(f) lands are those lands that have Land and Water Conservation (LAWCON) funds involved in their purchase or development. There are no State Designated Lands in the project corridor.

##### 4.12.2 Open Space Lands Acquisition and Development (OSLAD) Act Lands

The project corridor does not contain any lands that have funds involved in their purchase or development that was obtained from Open Space Lands Acquisition and Development (OSLAD) funding.

#### 4.13 Section 4(f) Evaluation

The project corridor does not contain any properties that would require Section 4(f) evaluation. Correspondence from the Village of Lakewood regarding public land proposed for acquisition acknowledged that the property is not used for recreational purposes. (Copy of correspondence can be found in [Appendix A](#).) There are no publicly owned parks, recreational areas, wildlife and waterfowl refuges, or any land from a historic site of national, State, or local significance.

#### 4.14 Permits/Certifications Required

The proposed improvements would require the following permits. All permits would be obtained prior to start of construction, and all permit conditions will be complied with.

- Clean Water Act, Section 401 – Water Quality Certificate
- Clean Water Act, Section 404 – Discharge of Dredged or Fill Materials into Waters of the US
- Clean Water Act – National Pollutant Discharge Elimination System Construction General Permit
- Illinois Department of Natural Resources-Office of Water Resources permit

### 4.15 Other Issues

#### 4.15.1 Aesthetics

The view shed along IL 47 is composed of primarily flat, open space land. In the southern and northern portions of the corridor, commercial and residential development exists. In the central portion of the corridor, the landscape is primarily agricultural or open space (associated with rivers and wetlands).

The proposed construction will not greatly affect the view shed or aesthetics. The project consists of the widening of an existing roadway, and changes will be minimal. Through most of the corridor, the road improvements will incorporate a central median, that will be grassed and/or landscaped. This central median will improve the aesthetics of the corridor.

#### 4.15.2 Construction Impacts

Construction activities have the potential to impact travel patterns if lane closures or temporary detours are needed; lane closures can also result in increased congestion. Emergency services should not be interrupted as a result of the proposed project.

Construction has the potential to impact water resources due to increased erosion and sedimentation. Vegetation removal and soil disturbances would increase the potential for erosion, and structures placed within stream crossings can result in increased sedimentation. Increased sedimentation in turn can impact aquatic habitat and species. Erosion and sediment control will be managed per the IDOT *BDE Manual* (Chapters 41 [Construction Site Storm Water Pollution Control] and 59 [Landscape Design]) (2010) and IDEM *Storm Water Quality Manual* (October 2007). Project specific sediment and erosion control plans and a SWPPP will be developed, coupled with compliance with the NPDES permit, these measures will help minimize sedimentation impacts.

During construction there is the potential for short term increases in fugitive dust and equipment related particulate emissions to impact air quality. Soil disturbance during grading activities and emissions released from construction equipment can contribute to these impacts. Any air quality impacts that would occur as a result of construction would be short term. Compliance with IDOT's *Standard Specifications for Road and Bridge Construction* (January 2012) provisions for dust control during construction will minimize these impacts.



During construction, increased noise will be experienced due to vehicles and equipment. These increased noise levels would be confined to normal working hours and would be experienced primarily by residents adjacent to the roadway. Increased noise would be temporary and localized.

Construction activities would generate solid wastes that would require offsite disposal. Wastes most often generated during construction would include vegetation, old pavement, and miscellaneous debris. Disposal of solid waste will be done in accordance with all state and federal laws. It is not anticipated that any hazardous waste will be generated, but if it is, the on-site storage, transportation, and disposal will be done in accordance with all state and federal laws.

### **4.15.3 Energy Consumption**

Construction of the proposed improvement would require indirect consumption of energy for processing materials, construction activities, and maintenance for the lane miles to be added within the project limits. Energy consumption by vehicles in the area may increase during construction due to possible traffic delays.

Operation of the proposed improvement would reduce traffic congestion and turning conflicts along the route and thereby reduce vehicular stopping and slowing conditions. Additional benefits would be realized from increased capacity and smoother riding surfaces. This would result in less direct and indirect vehicular energy consumption for the proposed improvements than for the No-Action Alternative. Thus, in the long term, post-construction operational energy requirements should offset construction and maintenance energy requirements and result in a net savings in energy usage.

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# Chapter 5 Environmental Commitments and Mitigation

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## 5.0 Environmental Commitments and Design Consideration

### 5.1 Environmental Commitments

Wildlife crossings under IL 47 are recommended and will be further studied during the final engineering design. Proposed crossing locations are presented in Table 4-6.

In order to avoid impacts to the state threatened Iowa darter (*Etheostoma exile*), no in stream work shall be conducted from April 1 through June 15 of any construction year at the following locations:

- Site 1: Kishwaukee River at IL 47, approximately 200 feet to 600 feet south of Dieckman Road
- Site 2: Kishwaukee River at IL 47, approximately 650 feet north of Foster/Union Road

Bioswales will be installed along the outside ditches where feasible and practical. They will be installed in locations immediately upstream of surface water resources, such as streams and wetlands. Other BMPs will be installed in the vegetated medians where appropriate.

Accidental spills of hazardous materials and wastes during construction or operation of the transportation system require special response measures. Occurrences will be handled in accordance with local government response procedures. Refueling, storage of fuels, or maintenance of construction equipment will not be allowed within 100 feet of wetlands or water bodies to avoid accidental spills impacting these resources.

### 5.2 Special Design and Construction Considerations

Special waste issues that may arise in the construction phase will be managed in accordance with the “IDOT Standard Specifications for Road and Bridge Construction and Supplemental Specifications and Recurring Special Provisions.” Further environmental studies will be conducted if the proposed improvements require excavation adjacent to a property identified with a recognized environmental concern (REC) or requires excavation, including subsurface utility relocation, on a property with an easement.

## Chapter 5 Environmental Commitments and Mitigation

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# Chapter 6 Coordination and Public Involvement

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## 6.0 Coordination and Public Involvement

Public outreach and coordination has been extensive on this project. Coordination meetings have been conducted with resource and regulatory agencies through regularly conducted NEPA/404 Merger Meetings. A copy of minutes from these meetings can be found in [Appendix D](#). Public comments have been summarized in [Appendix E](#).

In addition, meetings have been conducted with the general public and the local communities. Five Stakeholder Workshops, and two Public Meetings were held during the course of the project. The following sections provide a summary of each of the public outreach meetings.

### 6.1 Open House Public Meeting #1 (September 30, 2008)

The first Public Informational Meeting was held on September 30, 2008 from 4:00 to 7:00 p.m. at the Chesak Elementary School (10910 Reed Road). The purpose of the presentation was to introduce the Context Sensitive Solutions process and present existing road conditions and data that had been collected. Advertisements for the meeting were published in the *Daily Herald* and the *Northwest Herald* on September 9<sup>th</sup> and 23<sup>rd</sup> and approximately 350 meeting invitations and brochures were mailed to residents who live in and around the study area. One of the primary issues discussed at the meeting was traffic mobility. Residents were concerned about the amount of traffic currently present along the route and the potential effects the increase in traffic would have on mobility in the future. Another primary issue was traffic safety.

Two comments resulting from the public meeting were received via email; another 16 were obtained via notes at the public meeting. A community questionnaire was developed in support of this meeting, 10 comments were received as a result of this questionnaire. Comments were somewhat general as this was the initial Public Meeting. They included concern for safety, bicycle accommodations, building the road as soon as possible, and how many lanes it would be. All comments were responded to either by U.S. Postal Service mail or email depending on how they were received. For more information please see Appendix E.

### 6.2 Stakeholder Workshop #1 (February 13, 2009)

The first Stakeholder Workshop Meeting was held on February 13, 2009 from 10:00 a.m. to 12:00 p.m. The workshop was held at the Huntley Park District Recreation Center (12015 Mill Street, Huntley, IL). The purpose of the workshop was to introduce the Context Sensitive Solutions process and obtain public input for the project's purpose and need. A total of 28 stakeholders were identified and invited to the workshop, 19 attended. Invitation letters were mailed to home or business addresses and electronic invitation cards were sent by email.

The workshop obtained consensus on four project goals and objectives. The goals and objectives developed were:

- improve safety of IL 47
- improve mobility on IL 47
- protect the environment along IL 47
- accommodate economic development along IL 47

### 6.3 Stakeholder Workshop #2 (May 29, 2009)

The second Stakeholder Workshop Meeting was held on May 29, 2009 from 10:00 a.m. to 12:00 p.m. The workshop was held at the Huntley Park District Recreation Center (12015 Mill Street, Huntley, IL). Consensus was obtained on the Project Problem Statement and the stakeholders were encouraged to comment on the Project Purpose and Need. The meeting was attended by 17 stakeholders.

The workshop obtained consensus on the following four project elements:

- number of lanes - four lanes were preferred
- median type - barrier median or wide grass median was preferred
- edge treatment – paved shoulder with or without curb and gutter was preferred
- pedestrian/bicycle accommodations – a bicycle path was preferred

### 6.4 Stakeholder Workshop #3 (October 6, 2009)

The third Stakeholder Workshop Meeting was held on October 6, 2009 from 10:00 a.m. to 12:00 p.m. The workshop was held at the Huntley Park District Recreation Center (12015 Mill Street, Huntley, IL). Invitation letters were mailed to home or business addresses, electronic invitation cards were sent by email, and stakeholder volunteers were contacted by telephone to participate in the workshop. The meeting was attended by 19 stakeholders.

The stakeholder response to the alternatives was favorable and the preferred options identified. Five major categories of comments were received, including concerns related to accommodations for possible future bicycle overpasses, wetland impacts, reduced access, stormwater detention, or quality, and residential or business impacts.

### 6.5 Public Meeting #2 (November 19, 2009)

The second Public Informational Meeting was held on November 19, 2009 from 4:00 to 7:00 p.m. at the Martin Elementary School (10920 Reed Road, Lake in the Hills). Advertisements for the meeting were published in the *Daily Herald* and the *Northwest Herald* on October 29<sup>th</sup> and November 12<sup>th</sup> and meeting invitations and brochures were mailed to public official, agencies, business owners, and residents who live in and around the study area. The meeting was attended by approximately 23 people.

The primary concerns of the stakeholders via discussion or in written comments were accessibility, providing bike paths, runoff water quality, wetland impacts, tree removal, general

geometric differences of the Public Meeting's two alternatives versus IDOT's Strategic Regional Arterial study, being a participant in further workshops, and right of way acquisition. Preferred alternatives were also identified.

Five comments resulting from the public meeting were received via email; another 16 were obtained via notes at the public meeting. Thirteen comments were received at the public meeting. Comments included the desire for separated pedestrian and bicycle accommodations, left turn access, and concern for a narrower right of way for less property take. All comments were responded to either by U.S. Postal Service mail or email depending on how they were received. For more information please see Appendix E.

### **6.6 Stakeholder Workshop #4 (August 23, 2011)**

The fourth Stakeholder Workshop Meeting was held on August 23, 2011 from 10:00 a.m. to 12:00 p.m. The workshop was held at the Huntley Park District Recreation Center (12015 Mill Street, Huntley, IL). Electronic invitation cards were sent by email to stakeholder volunteers to participate in the workshop. The meeting was attended by 17 stakeholders.

The workshop consisted of a power point presentation and a group exercise. The power point presentation included an overview of the project progress and presentation of the concepts being utilized to reduce impacts. Exhibits were available for stakeholders to review, including a roll plot of the project showing the alternatives over an aerial background, renderings of the typical sections, and charts summarizing the impacts.

### **6.7 Stakeholder Workshop #5 (March 5, 2014)**

The fifth Stakeholder Workshop was held on March 5, 2014 from 10:00 a.m. to 12:00 p.m. The workshop was held at the Huntley Park District Recreation Center (12015 Mill Street, Huntley, IL). Electronic invitation cards were sent by email to stakeholder volunteers to participate in the workshop. Invitation letters were mailed to home or business addresses for those stakeholder volunteers who had not previously provided an e-mail address. Twenty-two stakeholders attended the meeting.

The workshop included a power point presentation and exhibit boards. The power point presentation consisted of an update on the project progress and next steps, description of the Preferred Alternative and an overview of the proposed BMPs. The exhibits included a roll plot of the proposed improvements over an aerial background, renderings of the proposed cross sections, and exhibit boards showing the project purpose and need, crash data, and traffic volume data.

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**Exhibits 1-1 and 1-2**  
**Location Maps**

# Location Map

## IL 47 Reed Road to US 14

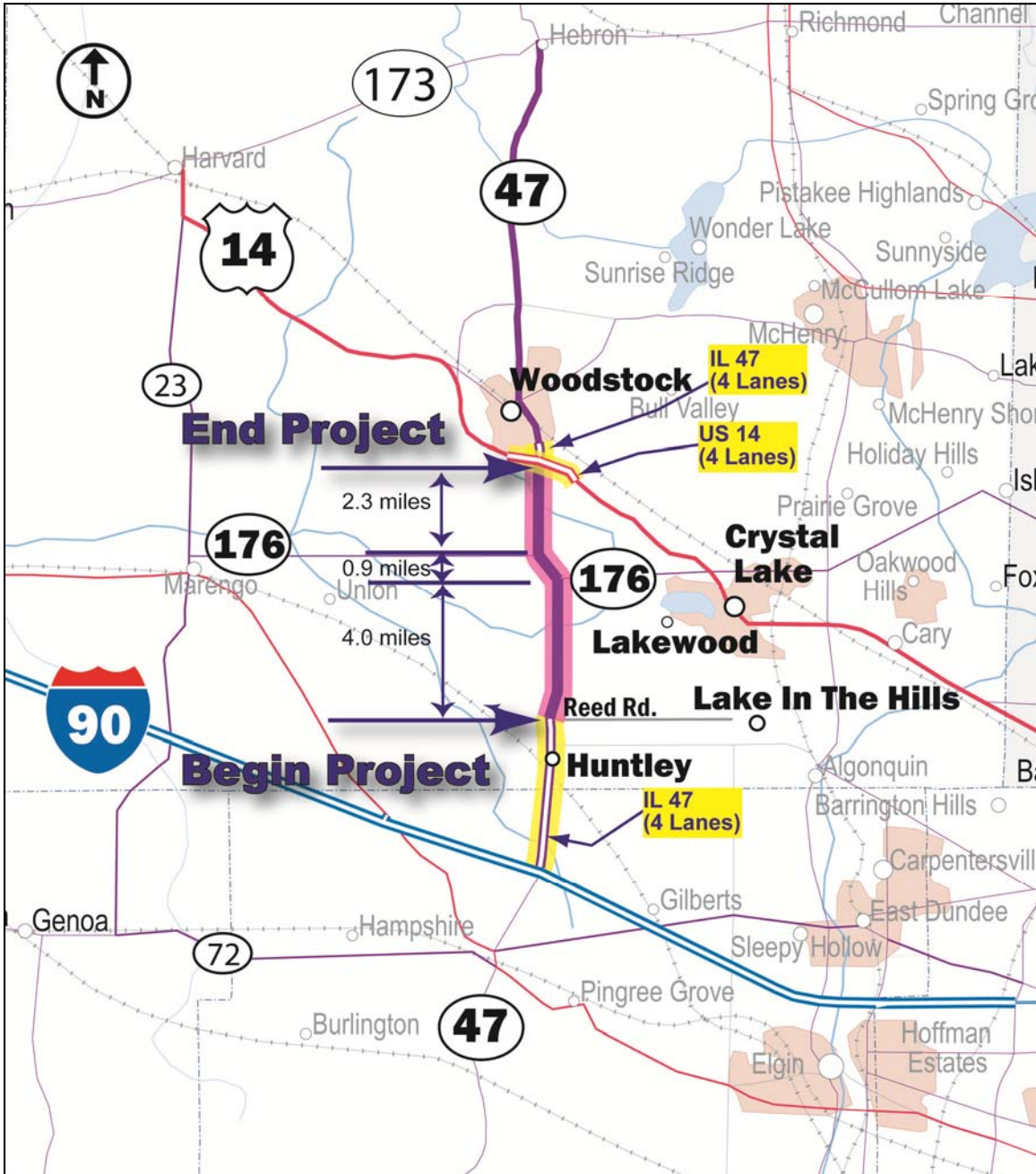


Exhibit 1-1 Location Map

# Detailed Location Map

## IL 47 Reed Road to US 14

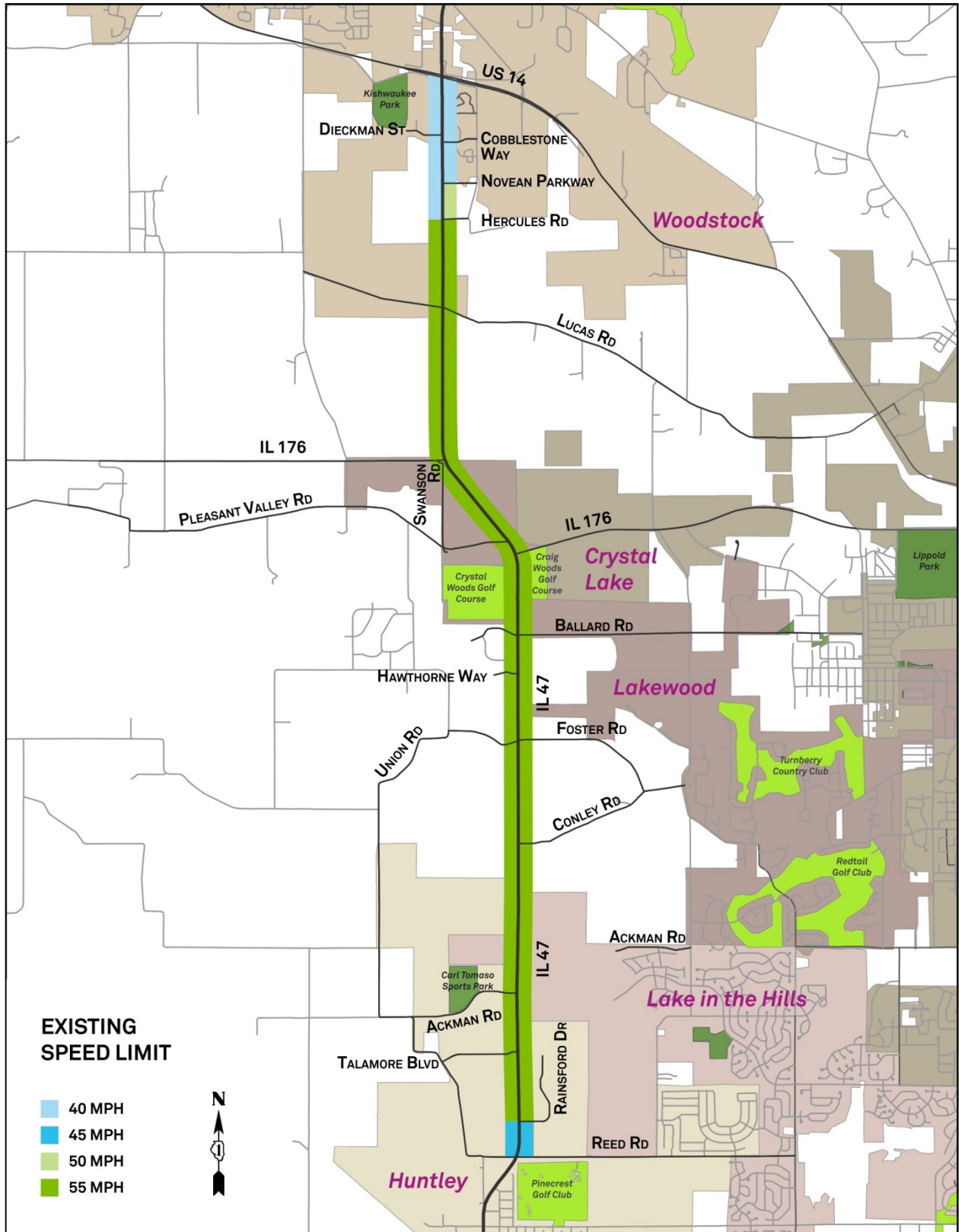
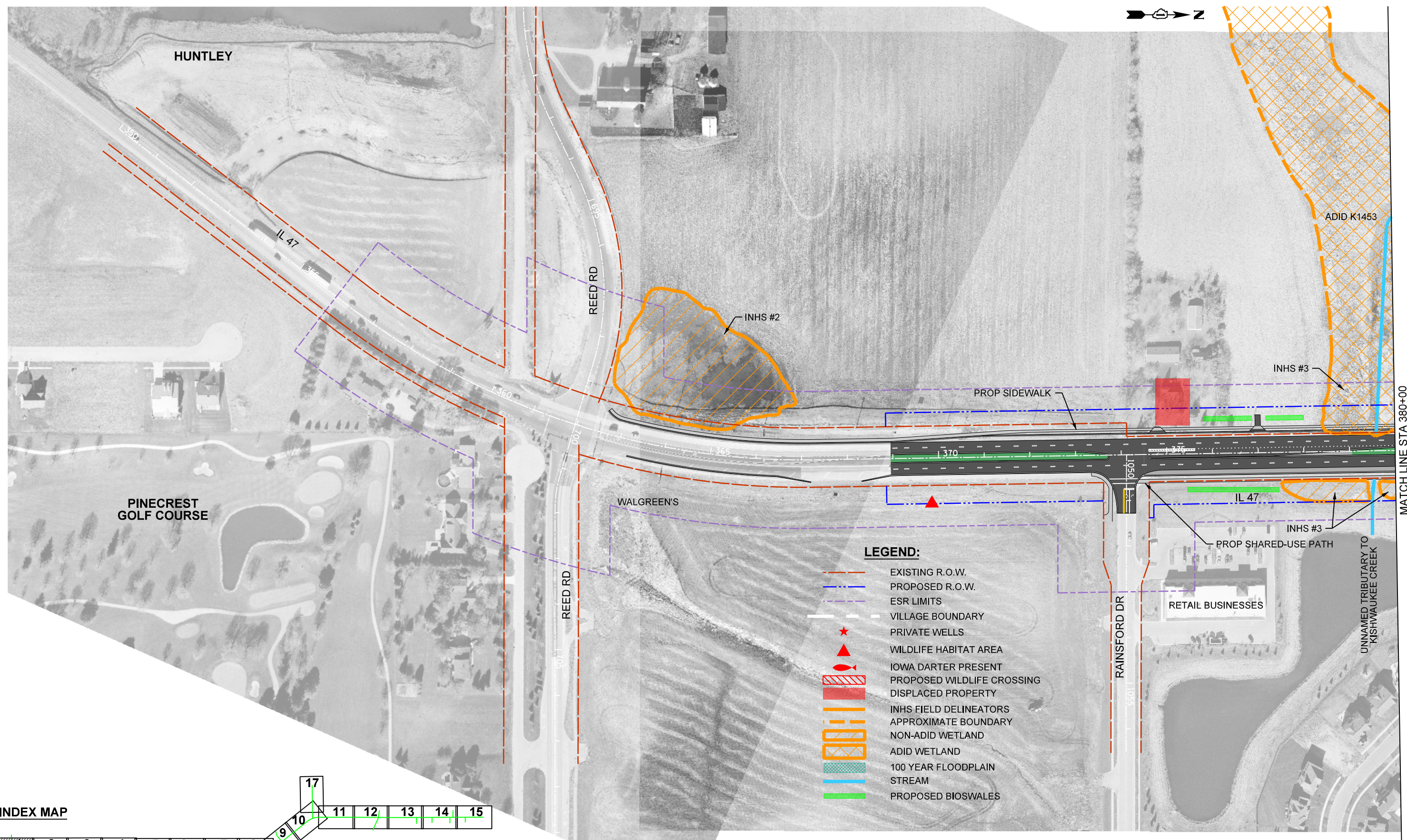


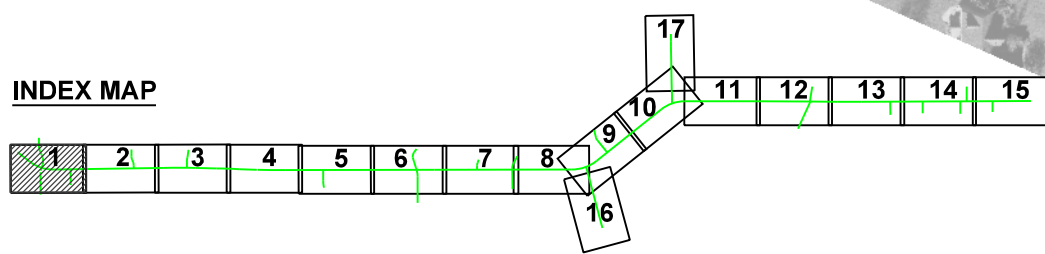
Exhibit 1-2 Detailed Location Map

**Exhibit 4-1**  
**Environmental Inventory Map**



- LEGEND:**
- EXISTING R.O.W.
  - PROPOSED R.O.W.
  - ESR LIMITS
  - VILLAGE BOUNDARY
  - PRIVATE WELLS
  - WILDLIFE HABITAT AREA
  - IOWA DARTER PRESENT
  - PROPOSED WILDLIFE CROSSING
  - DISPLACED PROPERTY
  - INHS FIELD DELINEATORS
  - APPROXIMATE BOUNDARY
  - NON-ADID WETLAND
  - ADID WETLAND
  - 100 YEAR FLOODPLAIN
  - STREAM
  - PROPOSED BIOSWALES

**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints01.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED -
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	PLOT DATE = 3/20/2014	DATE -	REVISED -

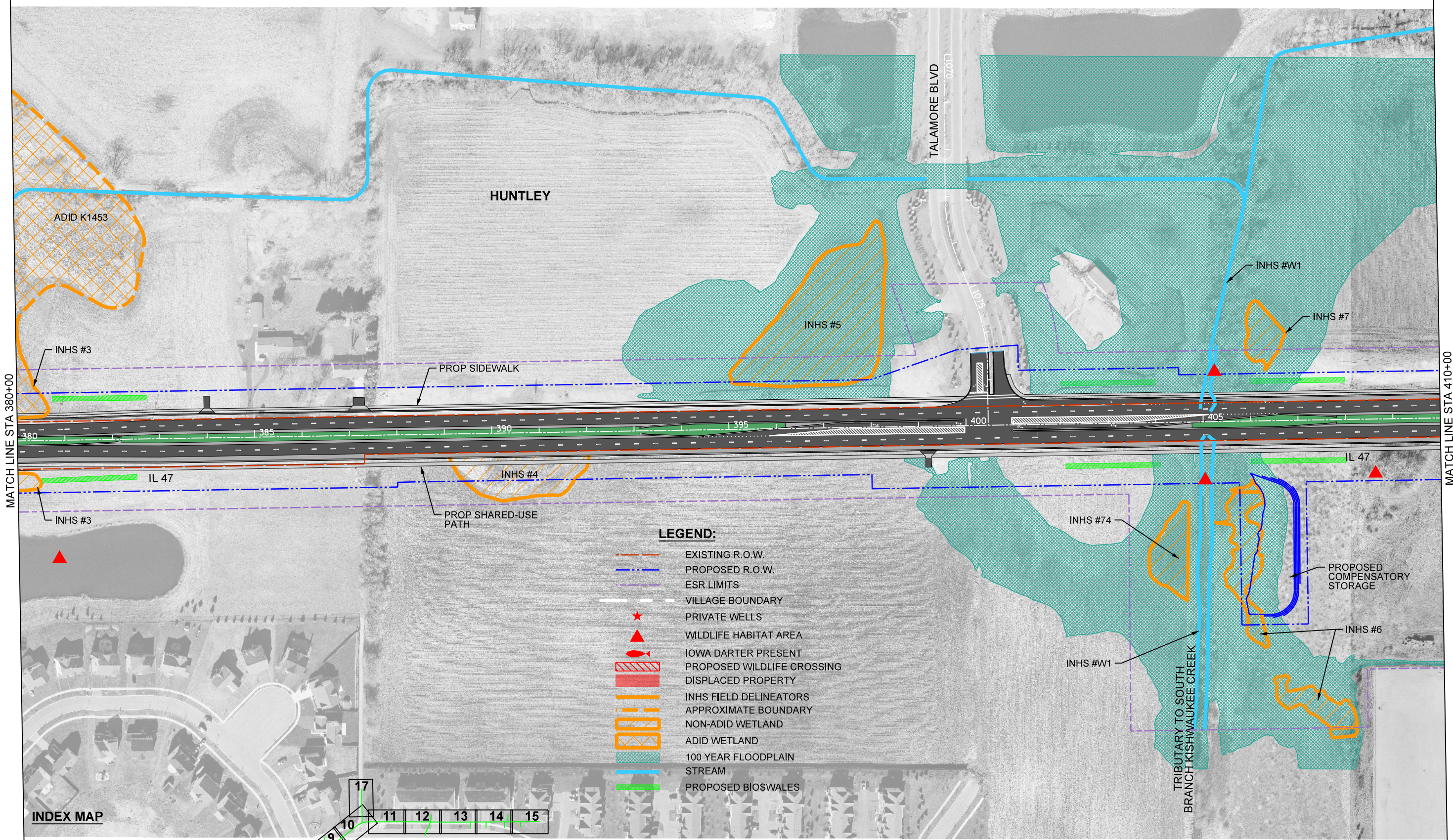
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200' SHEET NO. 1 OF 17 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	1
				CONTRACT NO.
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

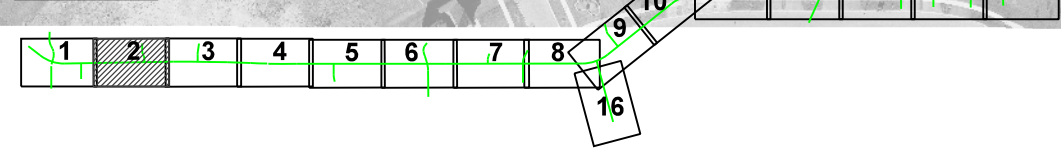
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3/20/2014



**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES

**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints02.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
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	PLOT DATE = 3/20/2014	DATE - ---	REVISED - ---

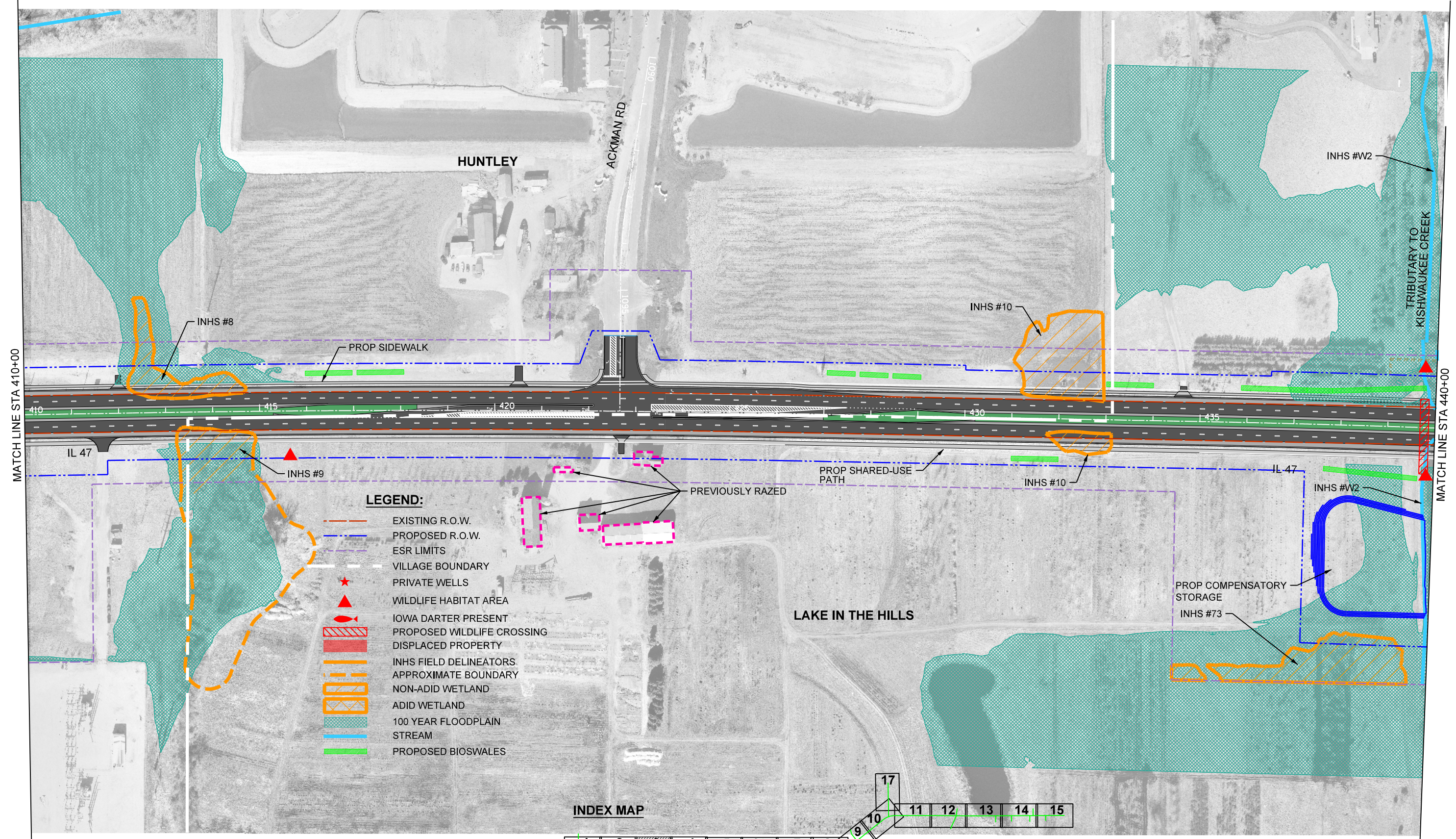
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 2 OF 17 SHEETS    STA.    TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	2
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

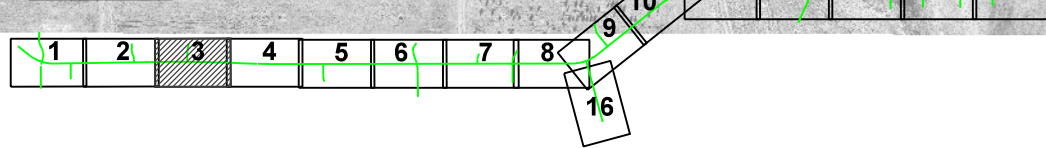
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3/20/2014



**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES

**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints03.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---
	PLOT DATE = 6/27/2014	DATE - ---	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**  
SCALE: 1" = 200'  
SHEET NO. 3 OF 17 SHEETS  
STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	3
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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6/27/2014



HUNTLEY

McHENRY COUNTY

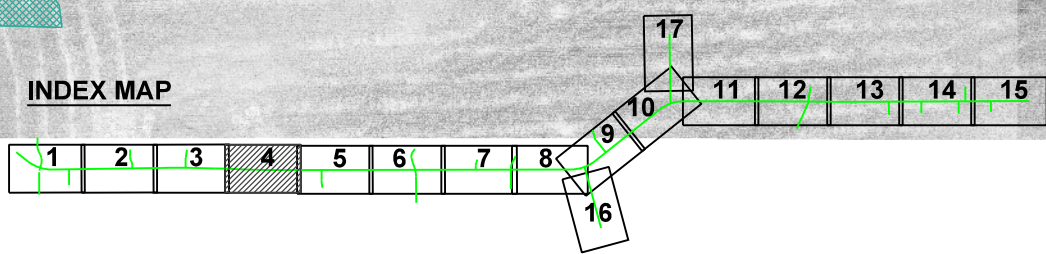
**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES

MATCH LINE STA 440+00

MATCH LINE STA 470+00

**INDEX MAP**



FILE NAME = 39027_SHT_ENV_Constraints04.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED -
		DRAWN - PHP	REVISED -
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED -
	PLOT DATE = 3/20/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 4 OF 17 SHEETS    STA.    TO STA.



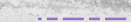

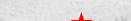






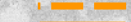




**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

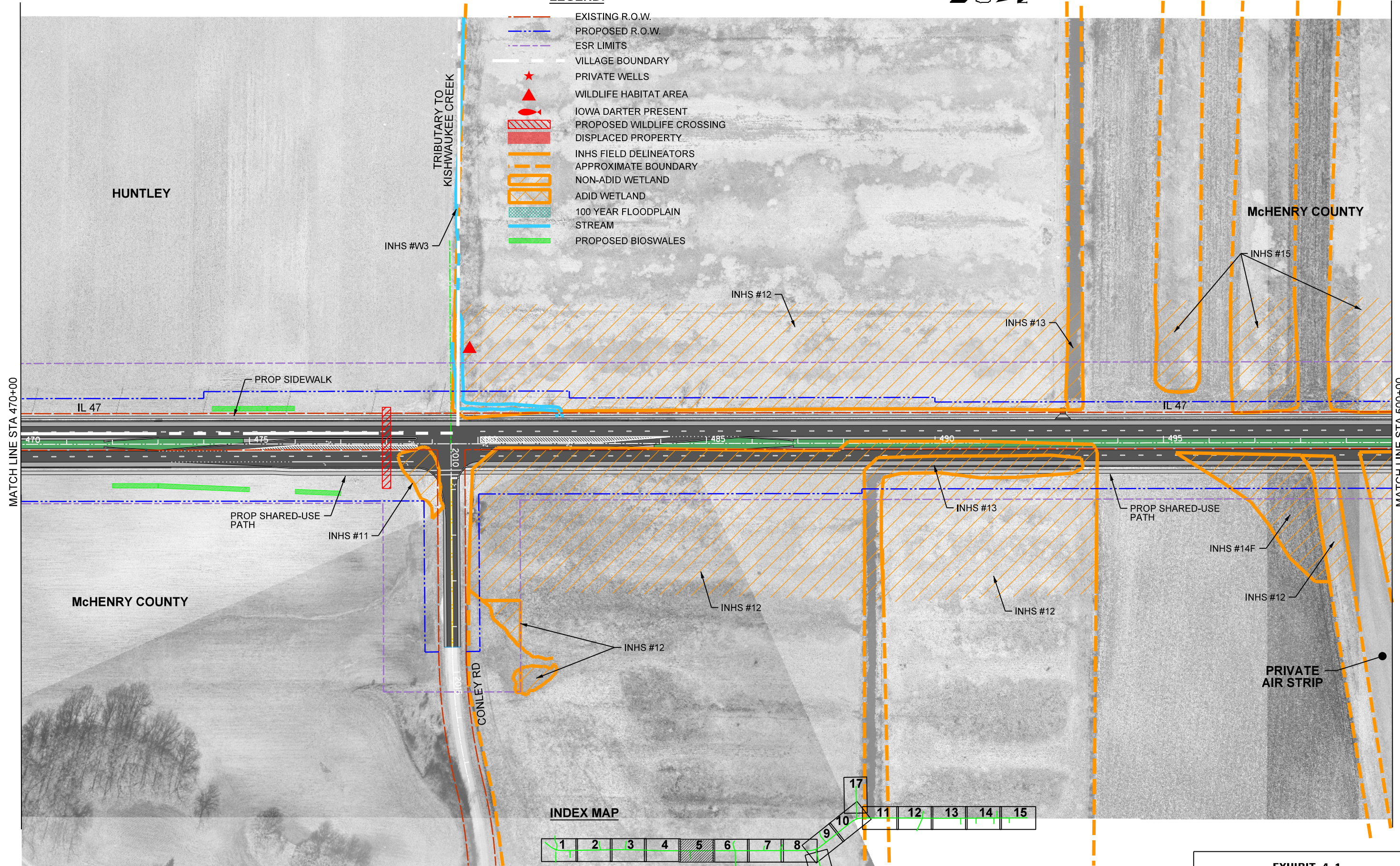
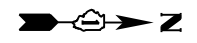
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	McHENRY	17	4
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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3/20/2014

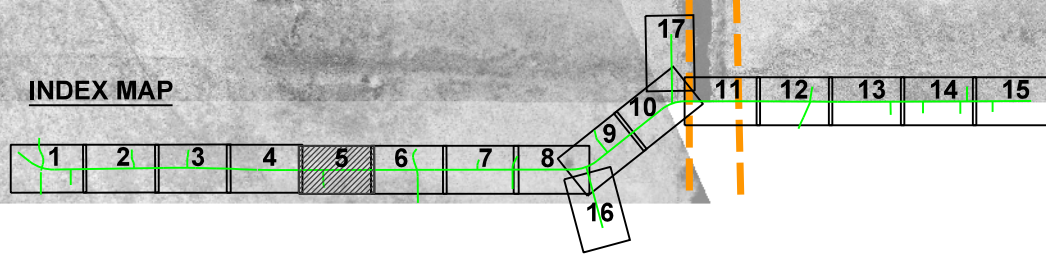


**LEGEND:**

-  EXISTING R.O.W.
-  PROPOSED R.O.W.
-  ESR LIMITS
-  VILLAGE BOUNDARY
-  PRIVATE WELLS
-  WILDLIFE HABITAT AREA
-  IOWA DARTER PRESENT
-  PROPOSED WILDLIFE CROSSING
-  DISPLACED PROPERTY
-  INHS FIELD DELINEATORS
-  APPROXIMATE BOUNDARY
-  NON-ADID WETLAND
-  ADID WETLAND
-  100 YEAR FLOODPLAIN
-  STREAM
-  PROPOSED BIOSWALES



**INDEX MAP**



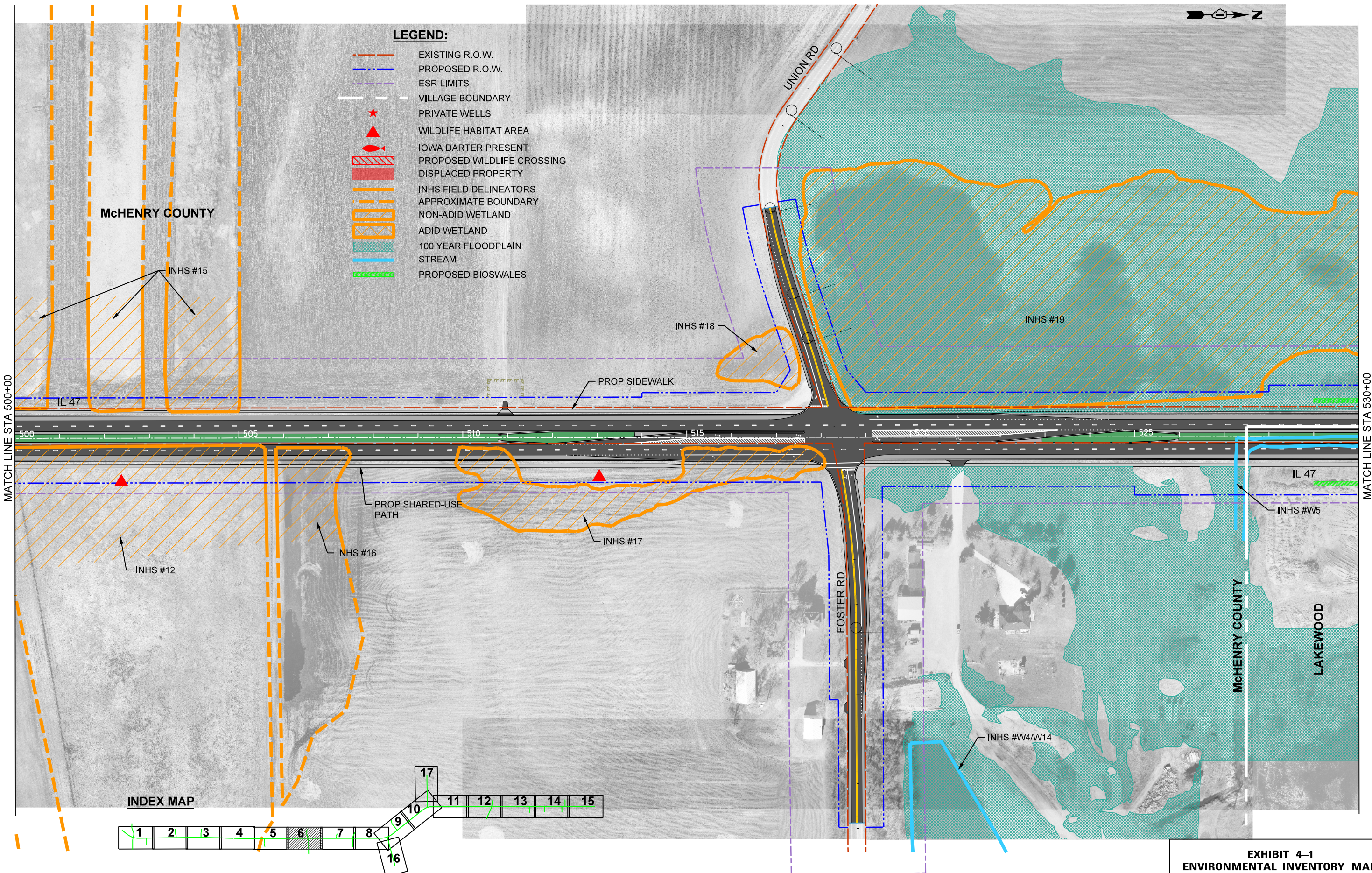
**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints05.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ENVIRONMENTAL CONSTRAINTS</b>			F.A.S. RTE. 47	SECTION REED ROAD TO US 14	COUNTY MCHENRY	TOTAL SHEETS 17	SHEET NO. 5
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---		SCALE: 1" = 200'	SHEET NO. 5 OF 17 SHEETS	STA.	TO STA.	CONTRACT NO.			
	PLOT DATE = 6/27/2014	DATE - ---	REVISED - ---		FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT							
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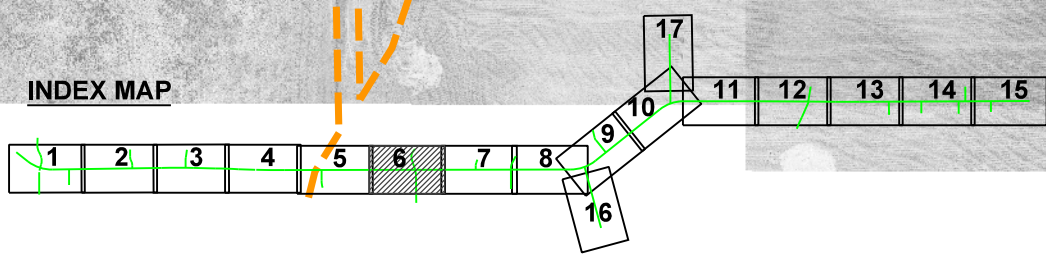


**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- ★ PRIVATE WELLS
- ▲ WILDLIFE HABITAT AREA
- ▲ IOWA DARTER PRESENT
- ▨ PROPOSED WILDLIFE CROSSING
- ▨ DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- ▨ NON-ADID WETLAND
- ▨ ADID WETLAND
- ▨ 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES



**INDEX MAP**



FILE NAME = 39027_SHT_ENV_Constraints06.dgn	USER NAME = #USER#	DESIGNED - ---	REVISED -
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		CHECKED - ---	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

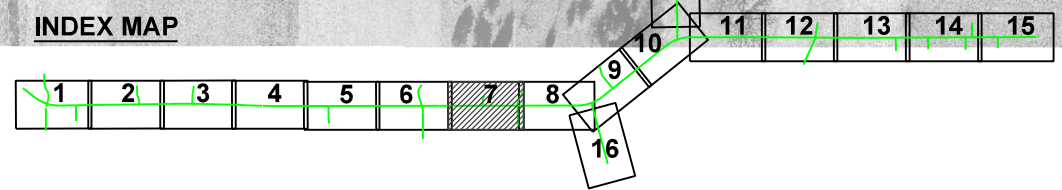
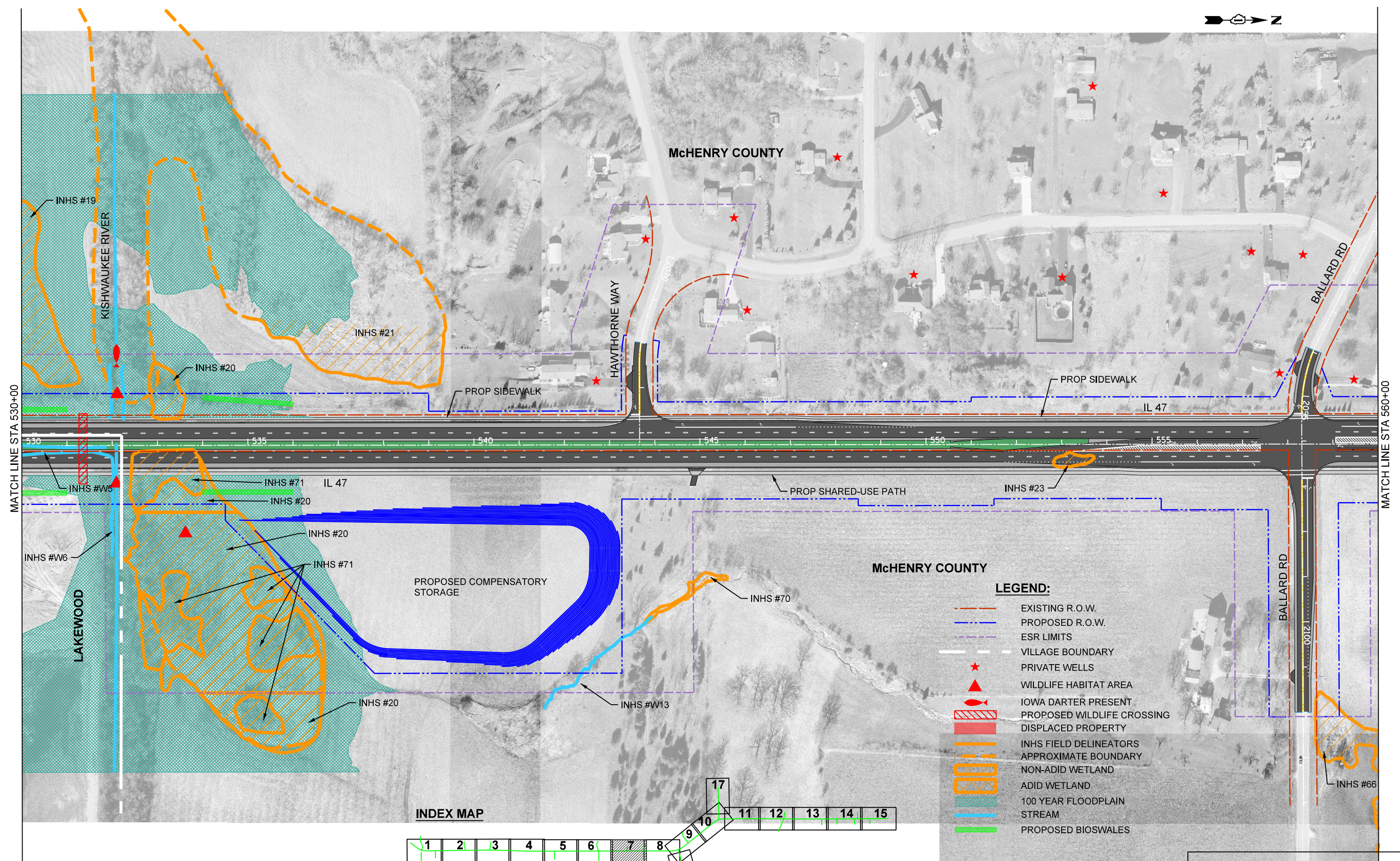
**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 6 OF 17 SHEETS    STA.    TO STA.

**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHEMRY	17	6
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

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3/20/2014



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

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	PLOT DATE = 3/20/2014	DATE -	REVISED -

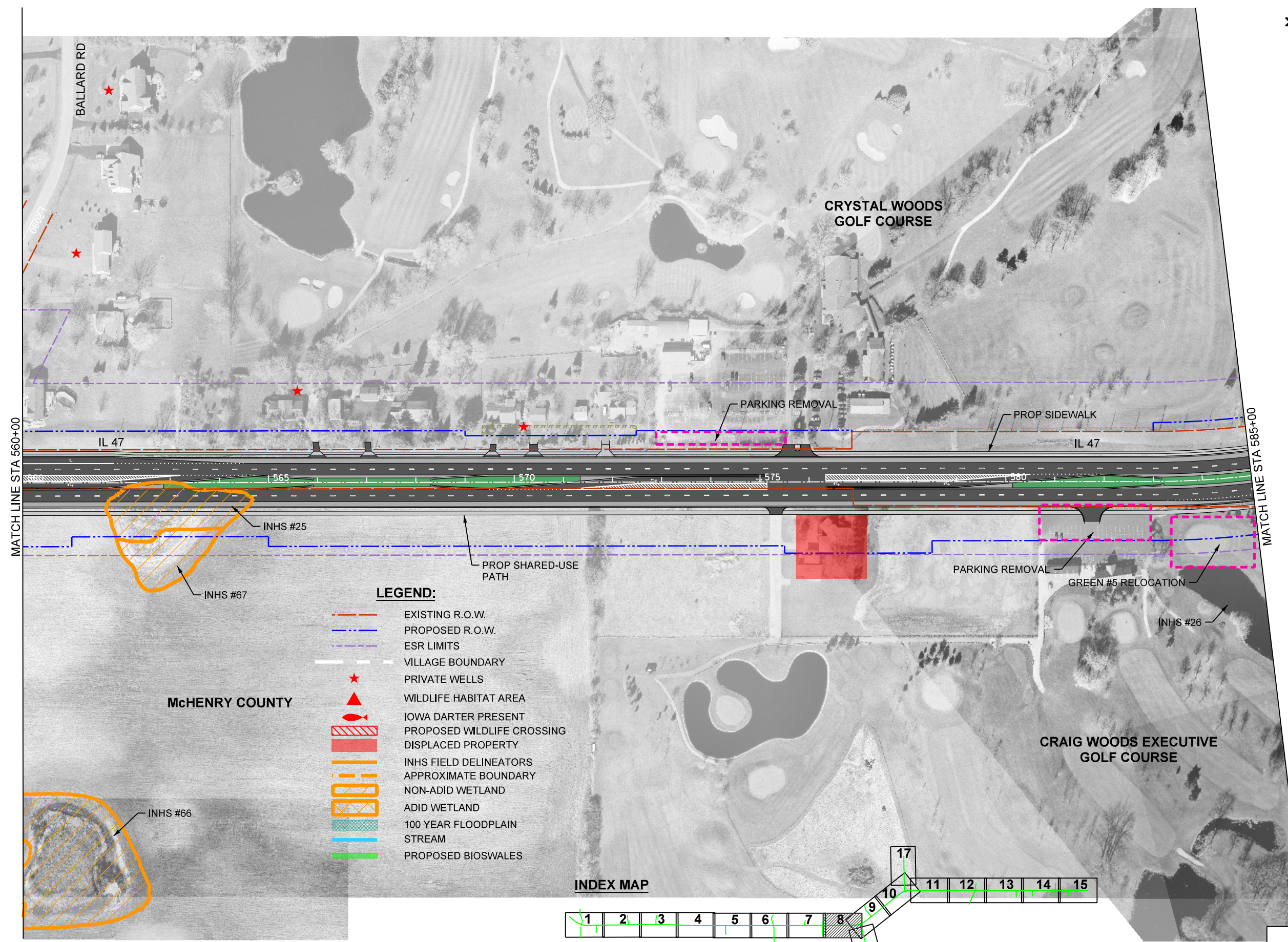
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 7 OF 17 SHEETS    STA.    TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHEMRY	17	7
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

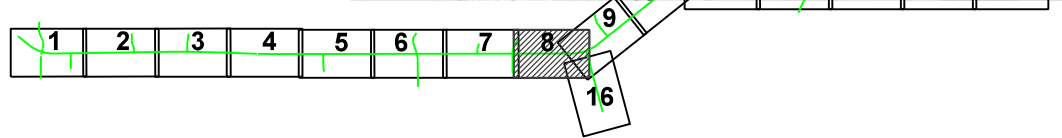
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3/20/2014



- LEGEND:**
- EXISTING R.O.W.
  - PROPOSED R.O.W.
  - ESR LIMITS
  - VILLAGE BOUNDARY
  - ★ PRIVATE WELLS
  - ▲ WILDLIFE HABITAT AREA
  - ▨ IOWA DARTER PRESENT
  - ▨ PROPOSED WILDLIFE CROSSING
  - ▨ DISPLACED PROPERTY
  - ▨ INHS FIELD DELINEATORS
  - ▨ APPROXIMATE BOUNDARY
  - ▨ NON-ADID WETLAND
  - ▨ ADID WETLAND
  - ▨ 100 YEAR FLOODPLAIN
  - ▨ STREAM
  - ▨ PROPOSED BIOSWALES

**McHENRY COUNTY**

**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints08.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---
	PLOT DATE = 3/20/2014	DATE - ---	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

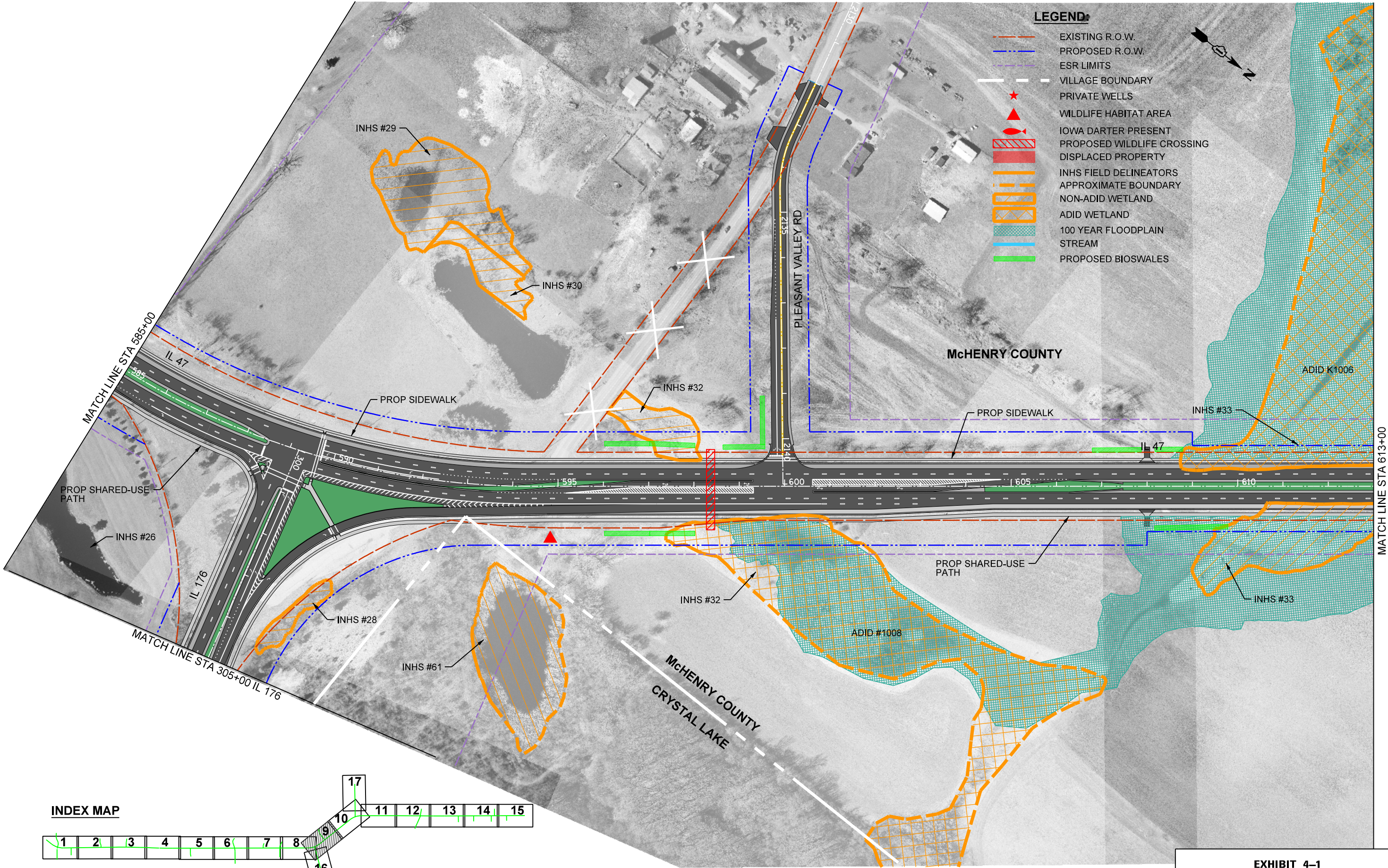
SCALE: 1" = 200'    SHEET NO. 8 OF 17 SHEETS    STA.    TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	8
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

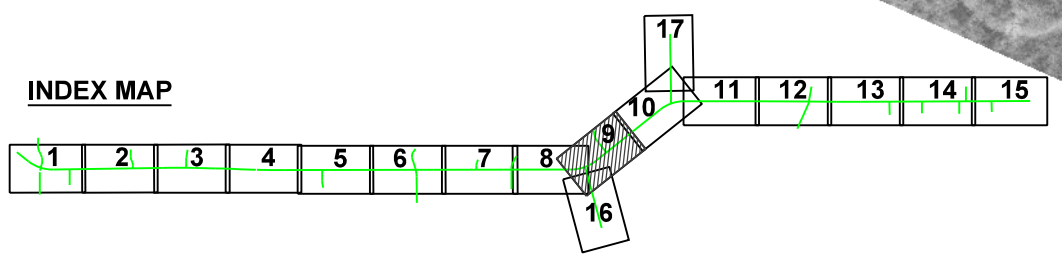
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3/20/2014

**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES



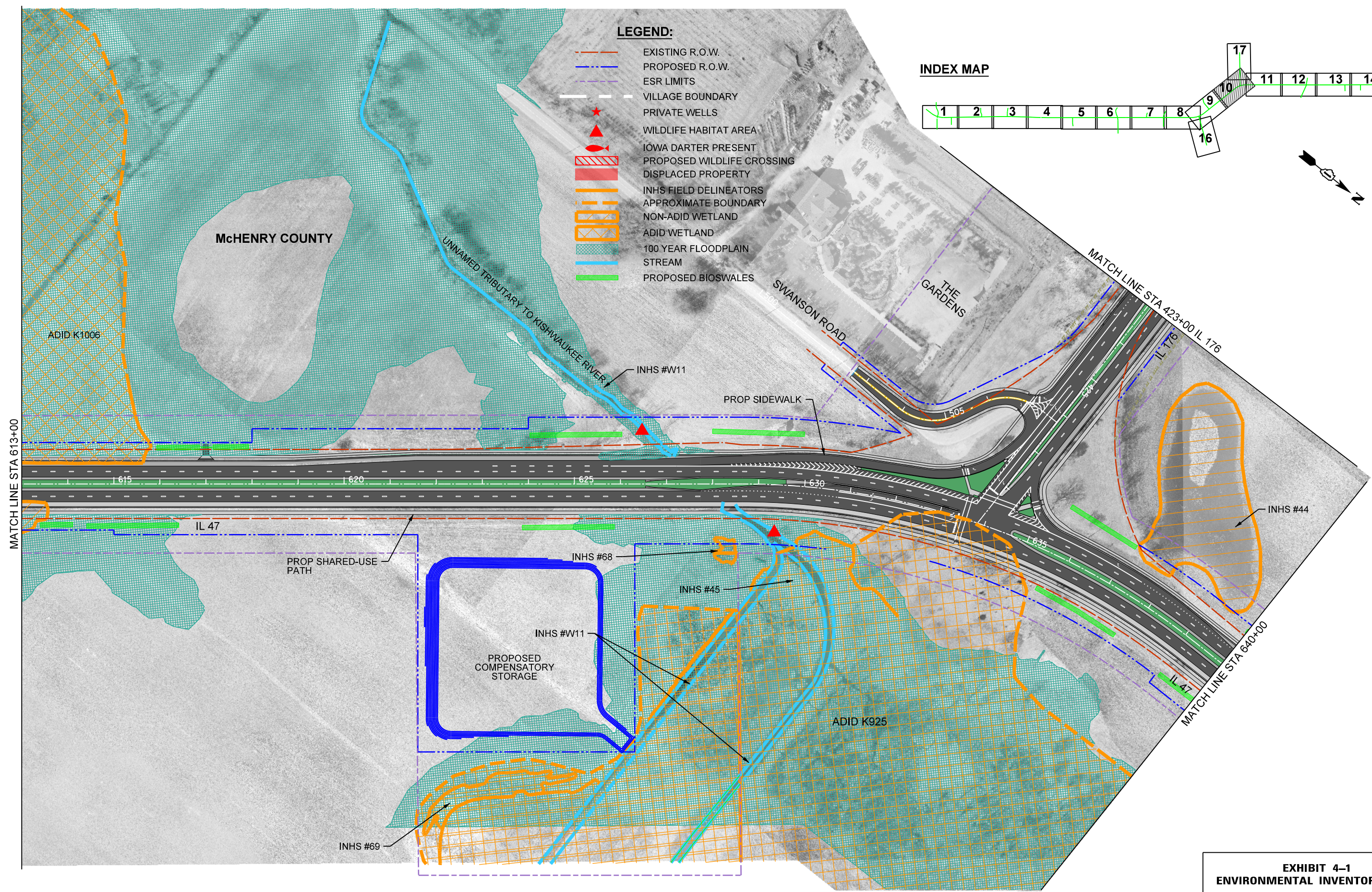
**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints09.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ENVIRONMENTAL CONSTRAINTS</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 200.000' / in.	DRAWN - PHP	REVISED - ---		SCALE: 1" = 200'	SHEET NO. 9 OF 17 SHEETS	STA.	TO STA.	47	REED ROAD TO US 14	MCHENRY	17	9
	PLOT DATE = 3/20/2014	CHECKED - ---	REVISED - ---										
		DATE -	REVISED - ---										
								CONTRACT NO.					
								FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT					

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3/20/2014



FILE NAME =	USER NAME = \$USER\$	DESIGNED - ---	REVISED -
39027_SHT_ENV_Constraints10.dgn		DRAWN - PHP	REVISED -
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED -
	PLOT DATE = 3/20/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 10 OF 17 SHEETS    STA.    TO STA.

EXHIBIT 4-1 ENVIRONMENTAL INVENTORY MAP				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	10
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO.	

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3/20/2014

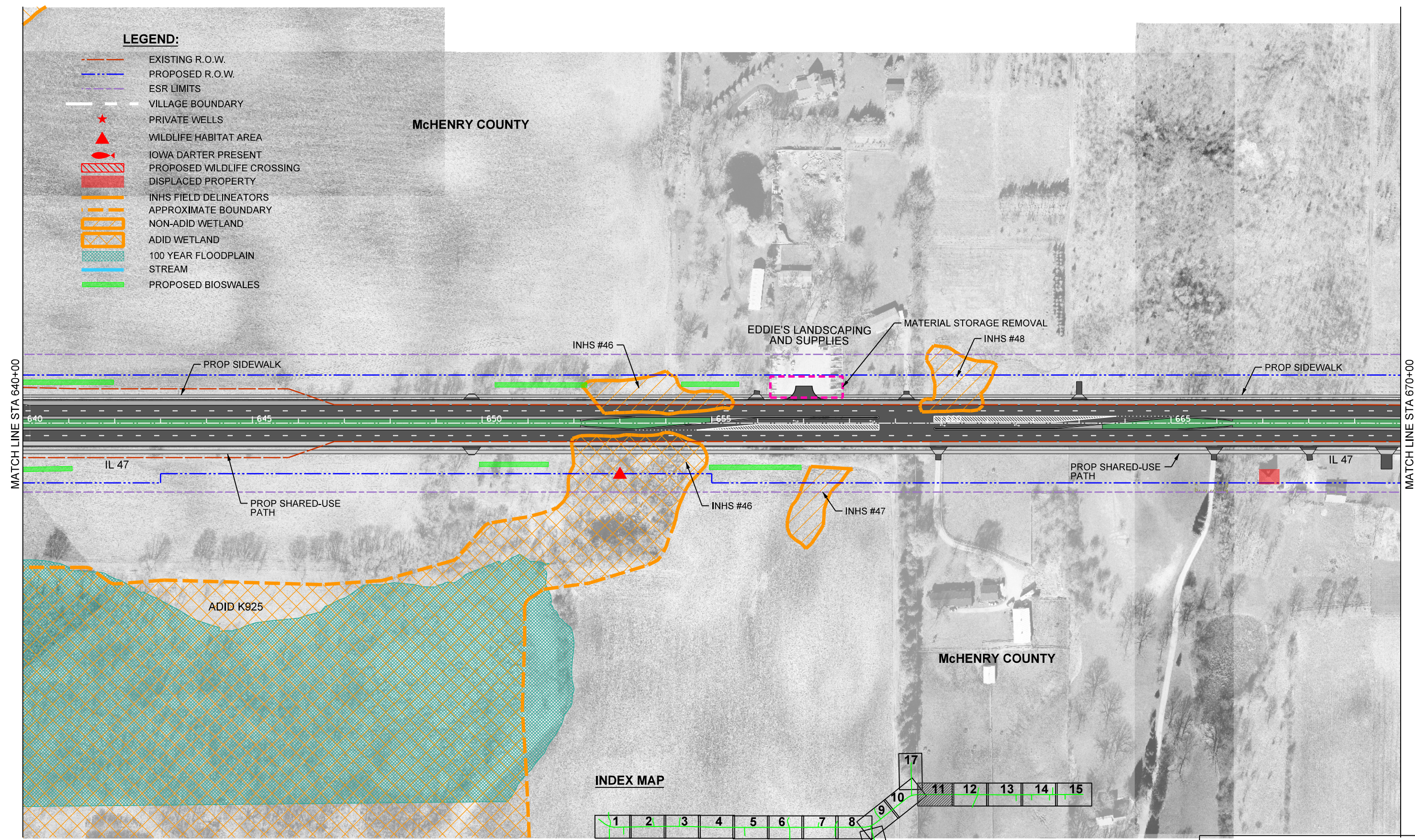


**LEGEND:**

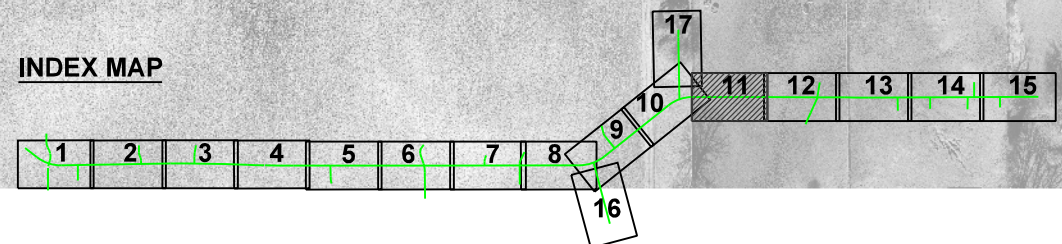
- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES

McHENRY COUNTY

McHENRY COUNTY



**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints1.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
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	PLOT DATE = 3/20/2014	DATE - ---	REVISED - ---

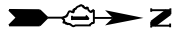
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 11 OF 17 SHEETS    STA.    TO STA.

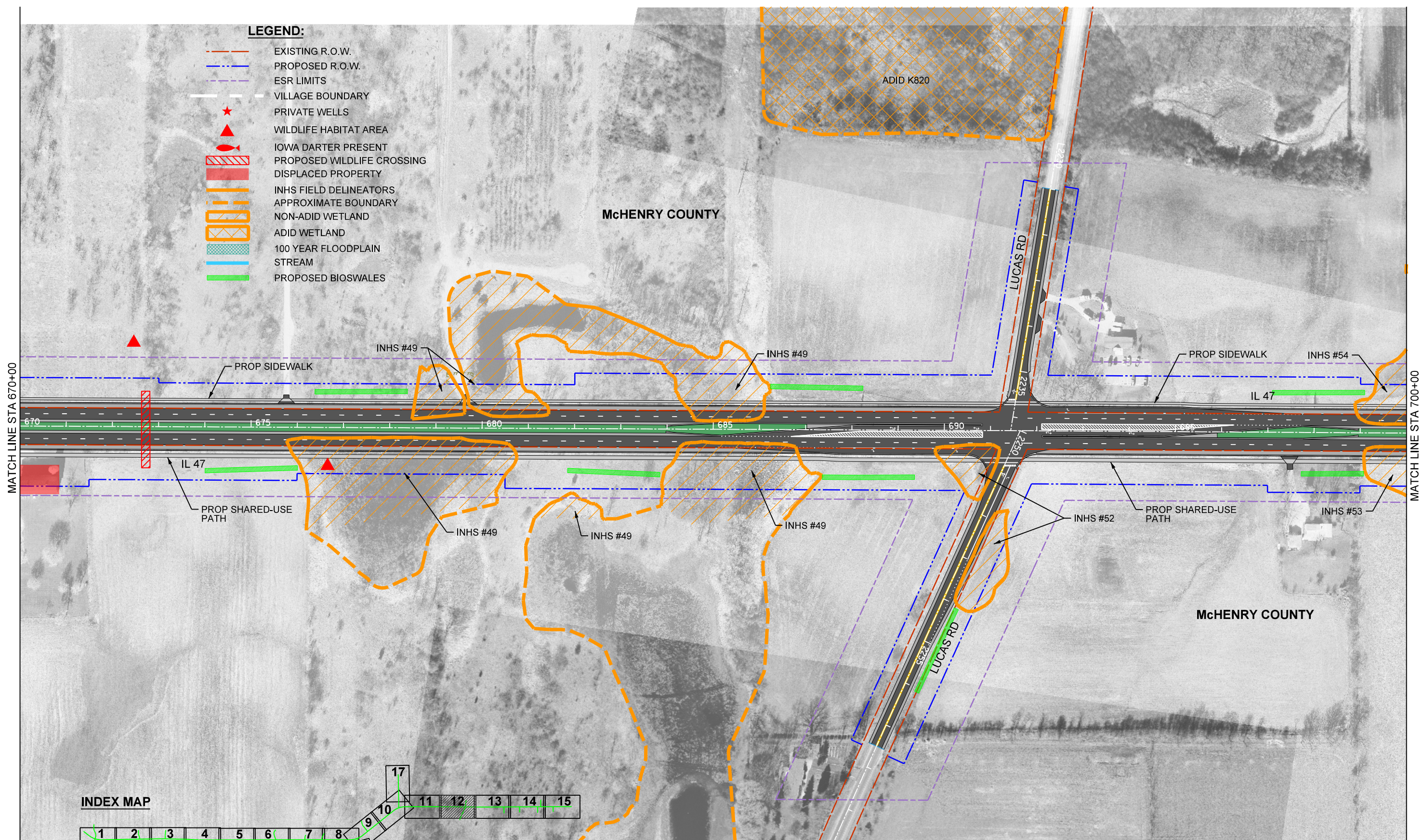
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	McHENRY	17	11
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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3/20/2014

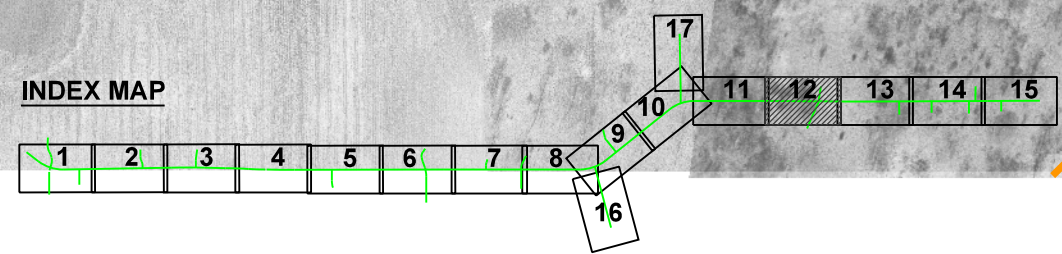


**LEGEND:**

- — — EXISTING R.O.W.
- — — PROPOSED R.O.W.
- — — ESR LIMITS
- — — VILLAGE BOUNDARY
- ★ PRIVATE WELLS
- ▲ WILDLIFE HABITAT AREA
- ▲ IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES



**INDEX MAP**



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints12.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

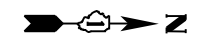
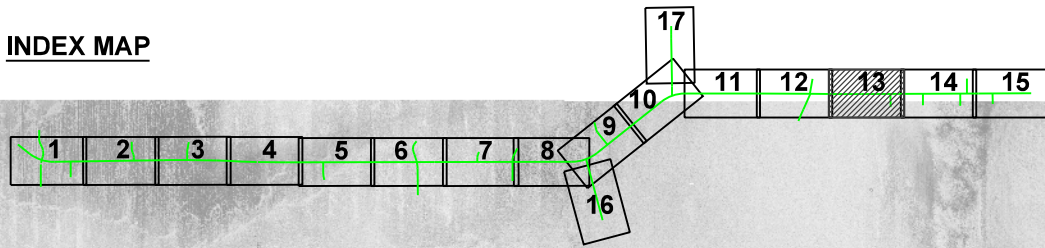
SCALE: 1" = 200'    SHEET NO. 12 OF 17 SHEETS    STA.    TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	12
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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3/21/2014

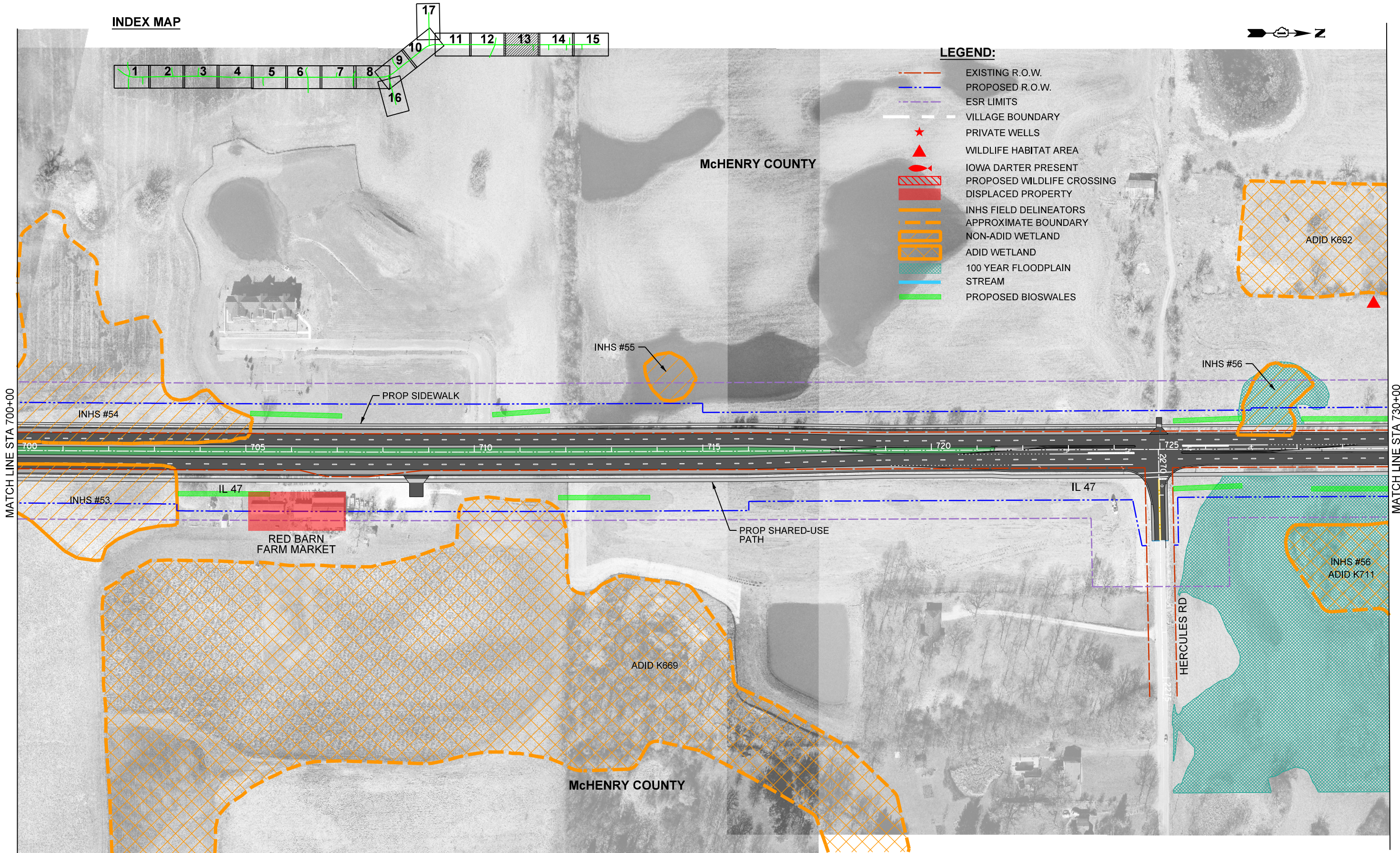


**INDEX MAP**



**LEGEND:**

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- IOWA DARTER PRESENT
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

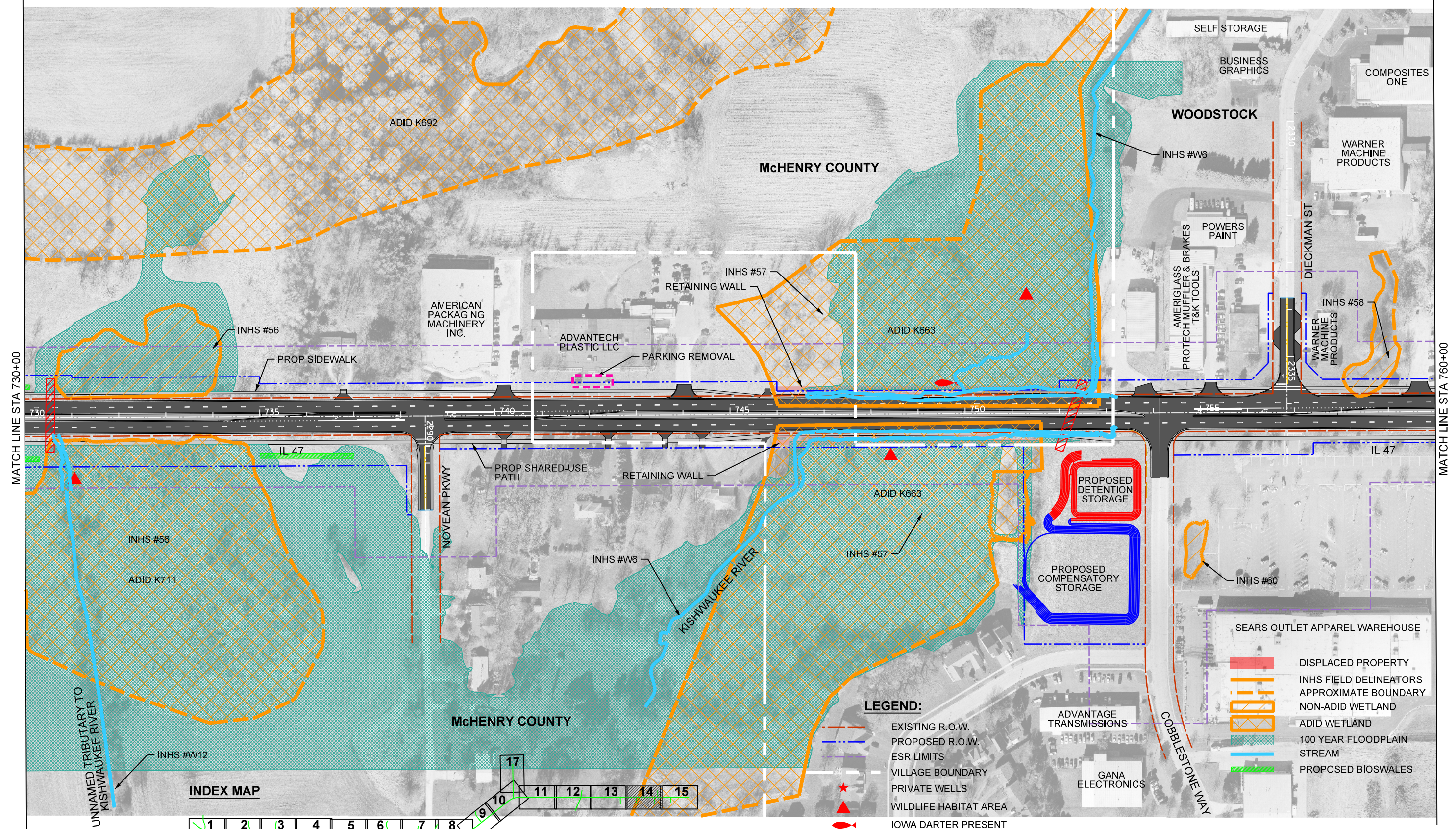
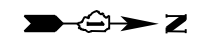
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	PLOT DATE = 3/20/2014	DATE - ---	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**  
SCALE: 1" = 200'  
SHEET NO. 13 OF 17 SHEETS  
STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	13
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

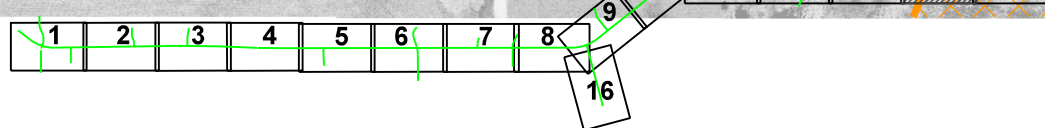
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3/20/2014



MATCH LINE STA 730+00

MATCH LINE STA 760+00

**INDEX MAP**



- LEGEND:**
- EXISTING R.O.W.
  - PROPOSED R.O.W.
  - ESR LIMITS
  - VILLAGE BOUNDARY
  - PRIVATE WELLS
  - WILDLIFE HABITAT AREA
  - IOWA DARTER PRESENT
  - PROPOSED WILDLIFE CROSSING

- SEARS OUTLET APPAREL WAREHOUSE
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES

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		CHECKED - ---	REVISED - ---
		DATE -	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

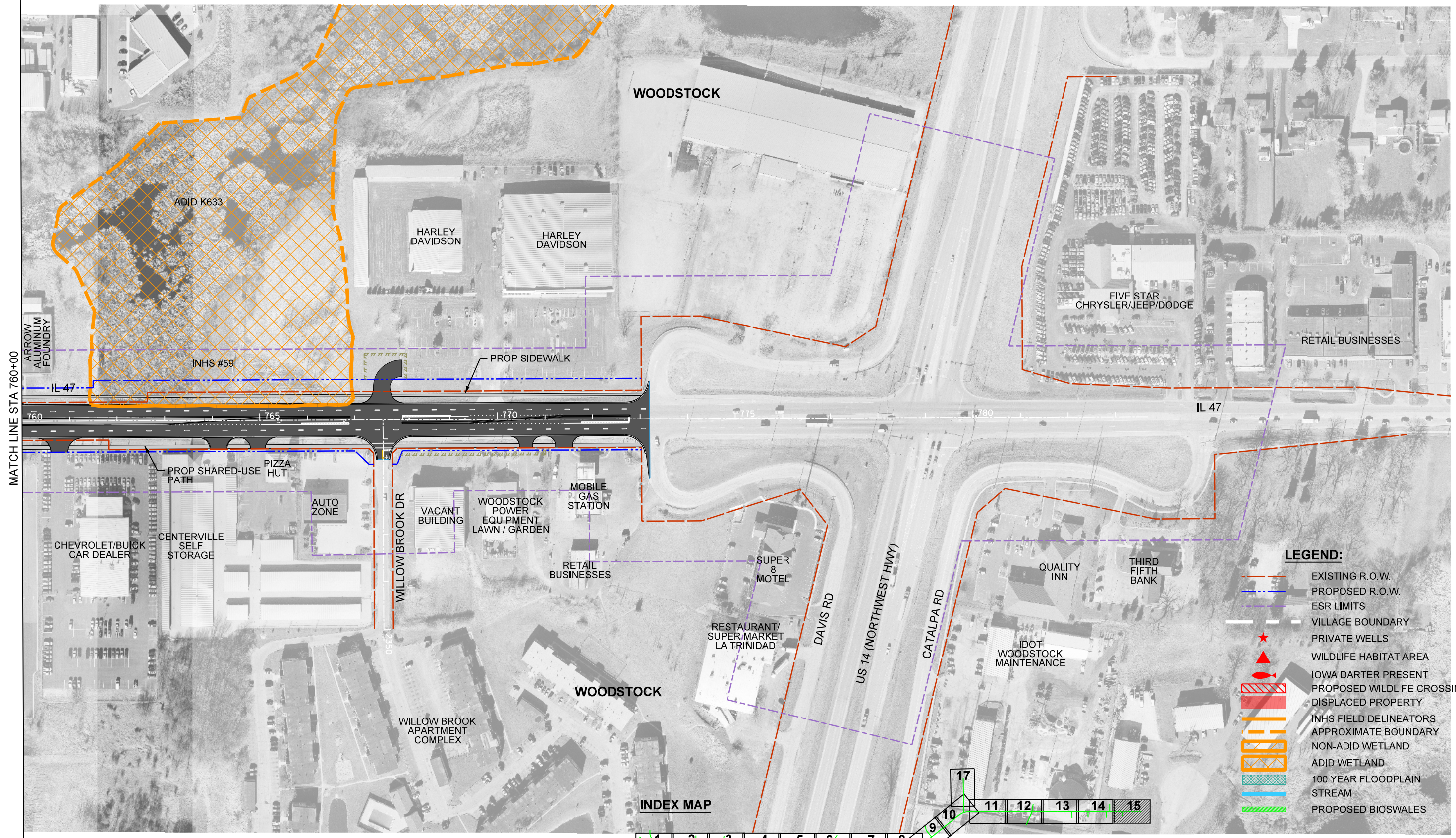
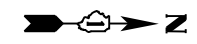
**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200' SHEET NO. 14 OF 17 SHEETS STA. TO STA.

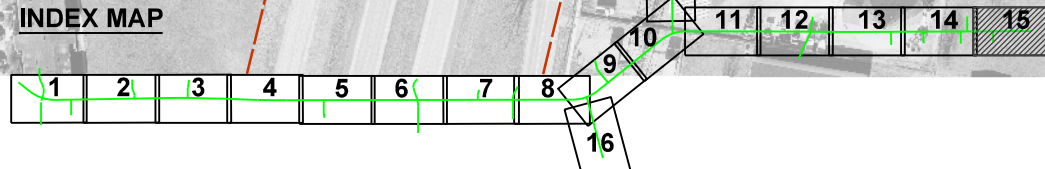
**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHEMRY	17	14
		CONTRACT NO.		
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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- LEGEND:**
- EXISTING R.O.W.
  - PROPOSED R.O.W.
  - ESR LIMITS
  - VILLAGE BOUNDARY
  - PRIVATE WELLS
  - WILDLIFE HABITAT AREA
  - IOWA DARTER PRESENT
  - PROPOSED WILDLIFE CROSSING
  - DISPLACED PROPERTY
  - INHS FIELD DELINEATORS
  - APPROXIMATE BOUNDARY
  - NON-ADID WETLAND
  - ADID WETLAND
  - 100 YEAR FLOODPLAIN
  - STREAM
  - PROPOSED BIOSWALES



**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	15
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

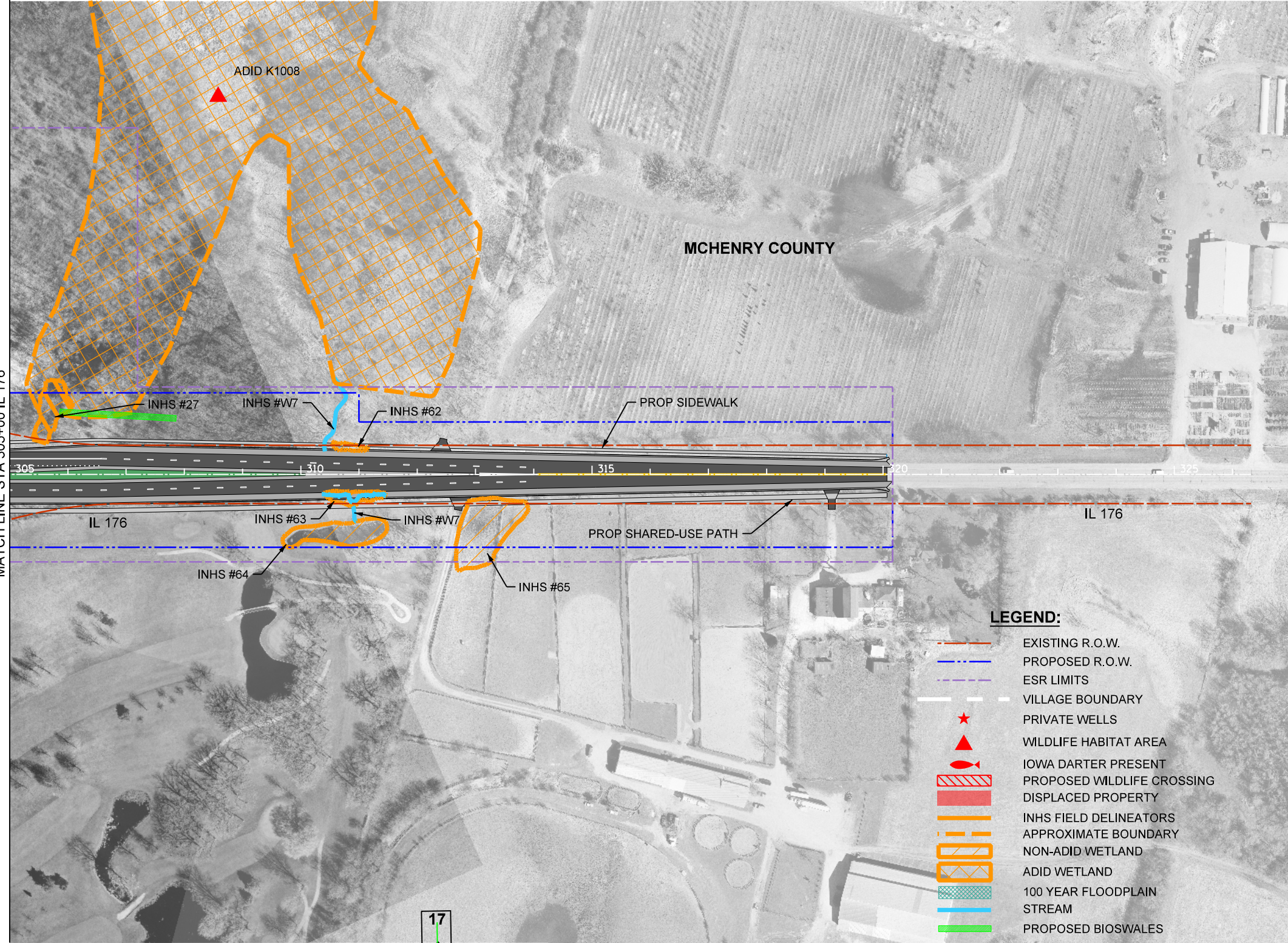
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		CHECKED - ---	REVISED - ---
		DATE - 3/20/2014	REVISED - ---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

SCALE: 1" = 200'    SHEET NO. 15 OF 17 SHEETS    STA.    TO STA.

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3/20/2014



MATCH LINE STA 305+00 IL 176

- LEGEND:**
- EXISTING R.O.W.
  - PROPOSED R.O.W.
  - ESR LIMITS
  - VILLAGE BOUNDARY
  - PRIVATE WELLS
  - WILDLIFE HABITAT AREA
  - IOWA DARTER PRESENT
  - PROPOSED WILDLIFE CROSSING
  - DISPLACED PROPERTY
  - INHS FIELD DELINEATORS
  - APPROXIMATE BOUNDARY
  - NON-ADID WETLAND
  - ADID WETLAND
  - 100 YEAR FLOODPLAIN
  - STREAM
  - PROPOSED BIOSWALES

**INDEX MAP**

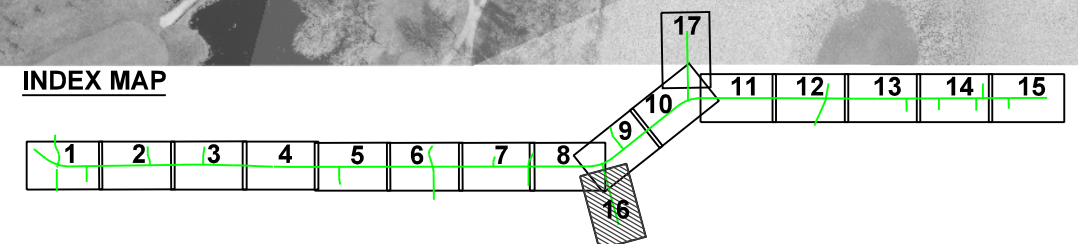


EXHIBIT 4-1 ENVIRONMENTAL INVENTORY MAP				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	16
CONTRACT NO.				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

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		DATE - ---	REVISED - ---
PLOT SCALE = 200.000' / in. PLOT DATE = 3/20/2014			


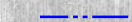














**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL CONSTRAINTS**

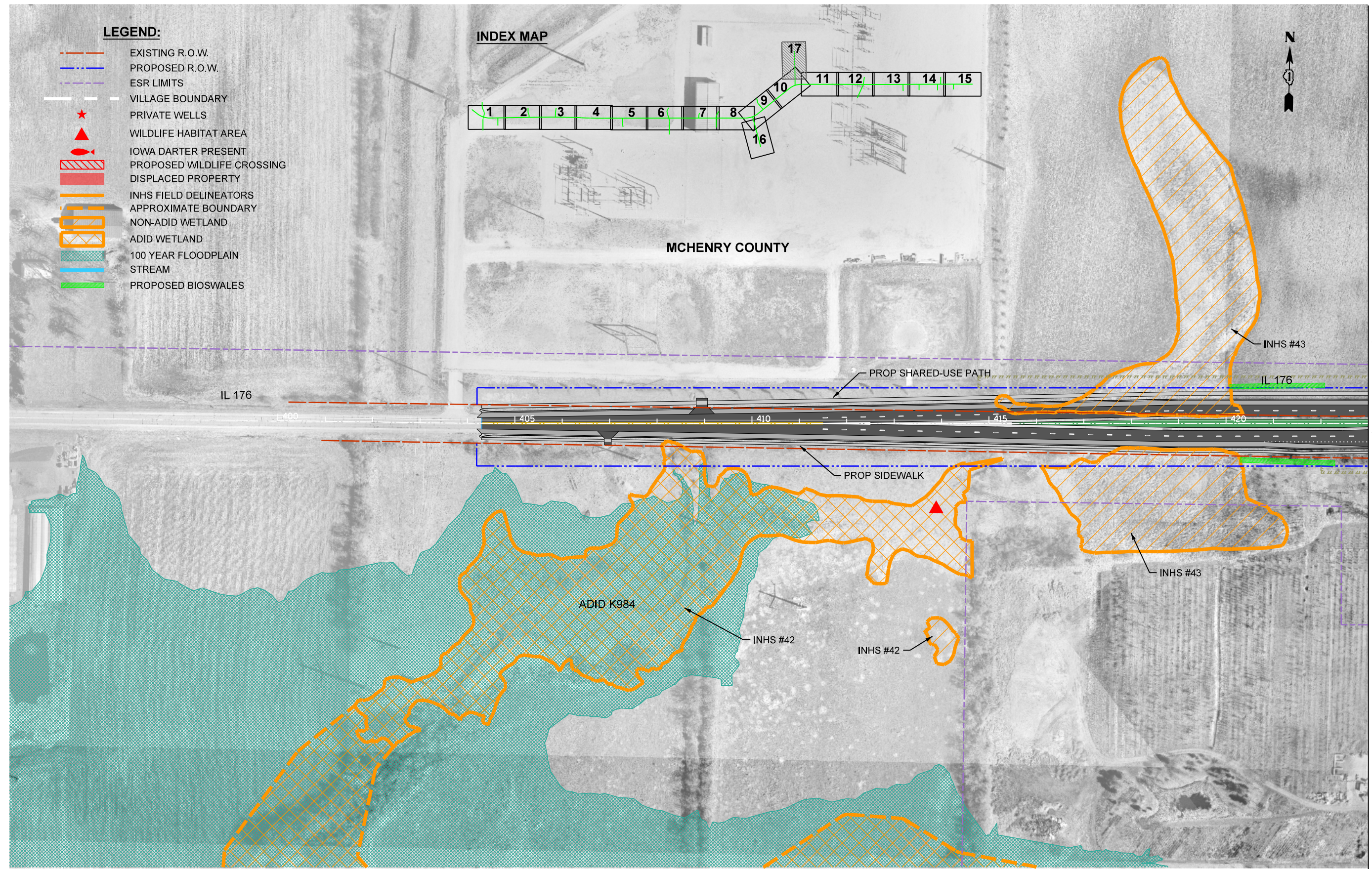
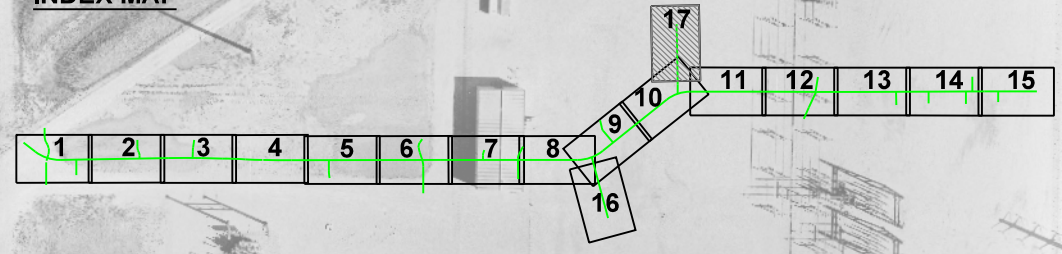
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3/20/2014

**LEGEND:**

-  EXISTING R.O.W.
-  PROPOSED R.O.W.
-  ESR LIMITS
-  VILLAGE BOUNDARY
-  PRIVATE WELLS
-  WILDLIFE HABITAT AREA
-  IOWA DARTER PRESENT
-  PROPOSED WILDLIFE CROSSING
-  DISPLACED PROPERTY
-  INHS FIELD DELINEATORS
-  APPROXIMATE BOUNDARY
-  NON-ADID WETLAND
-  ADID WETLAND
-  100 YEAR FLOODPLAIN
-  STREAM
-  PROPOSED BIOSWALES

**INDEX MAP**



MATCH LINE STA 423+00 IL 176

**EXHIBIT 4-1  
ENVIRONMENTAL INVENTORY MAP**

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	PLOT DATE = 3/20/2014		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

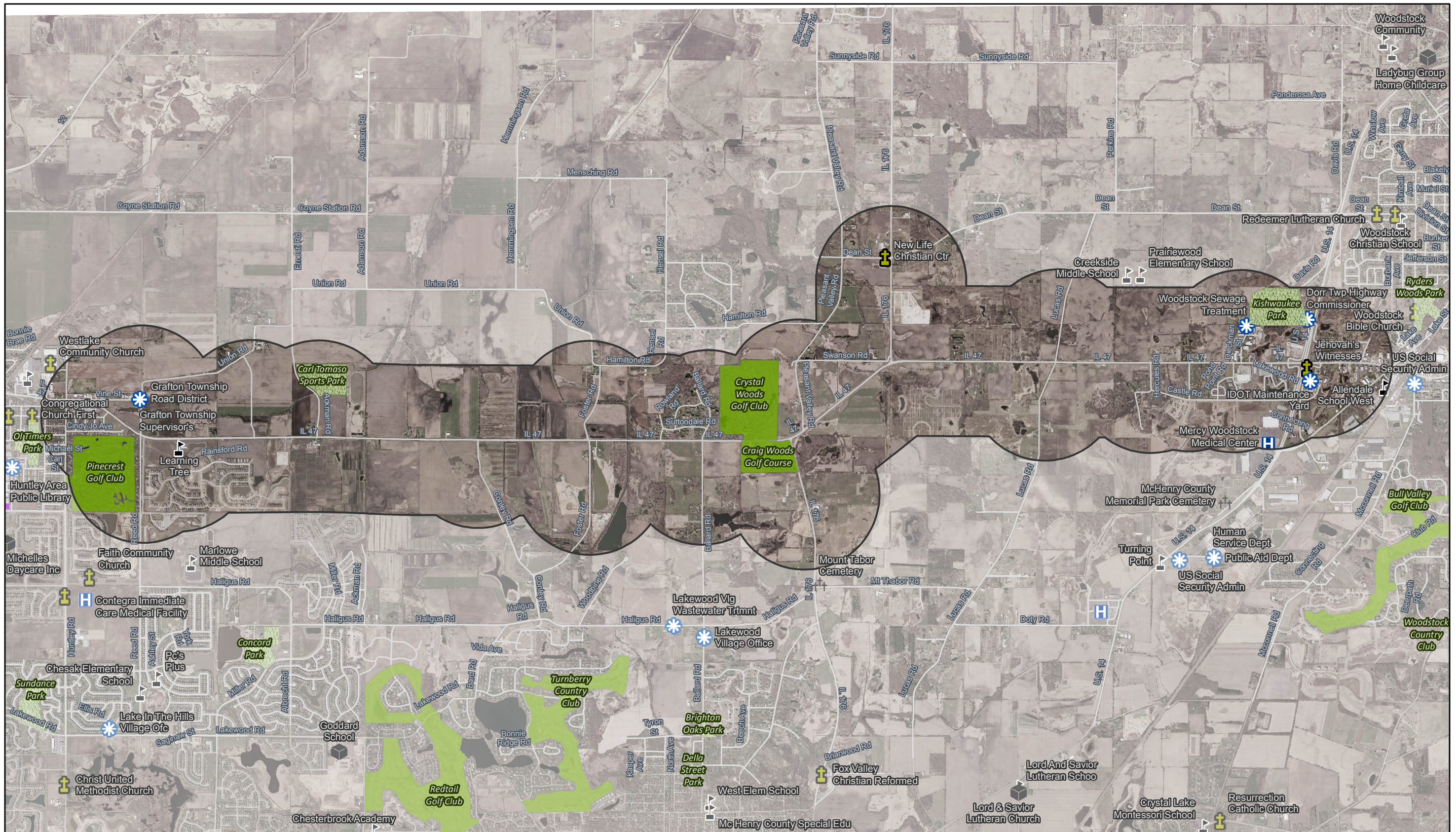
**ENVIRONMENTAL CONSTRAINTS**

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	17
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

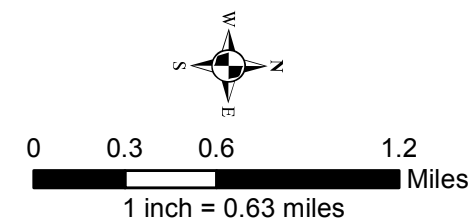
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3/20/2014

**Exhibit 4-2**  
**Public Facilities**



**Legend**

- |                       |                      |           |                    |
|-----------------------|----------------------|-----------|--------------------|
| †† Cemetery           | 🏫 School             | 📖 Library | 🏌️ Golf Course     |
| 🏠 Child Care Facility | 🏥 Medical Facility   | 🏠 Museum  | ⬜ Half Mile Buffer |
| 🏰 Place of Worship    | 🏛️ Government Office | 🌳 Parks   |                    |



**ILLINOIS ROUTE 47 STUDY**

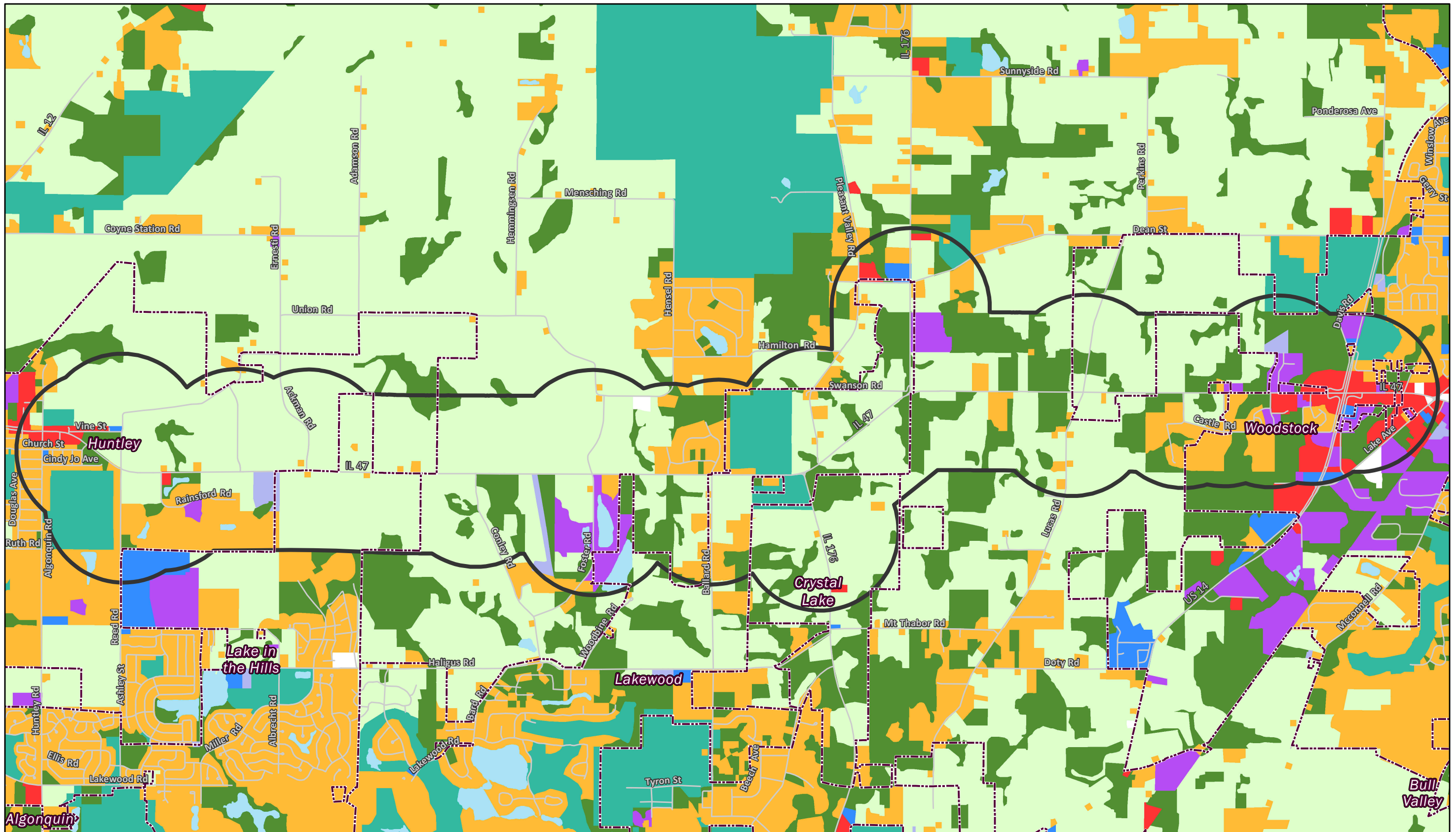
**Exhibit 4-2  
Public Facilities**

Date: 4/7/2014

**Exhibit 4-3**

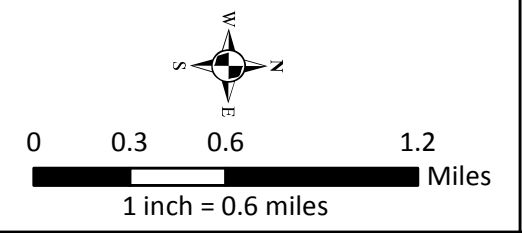
**Existing Land Use in Project Corridor**





**Legend**

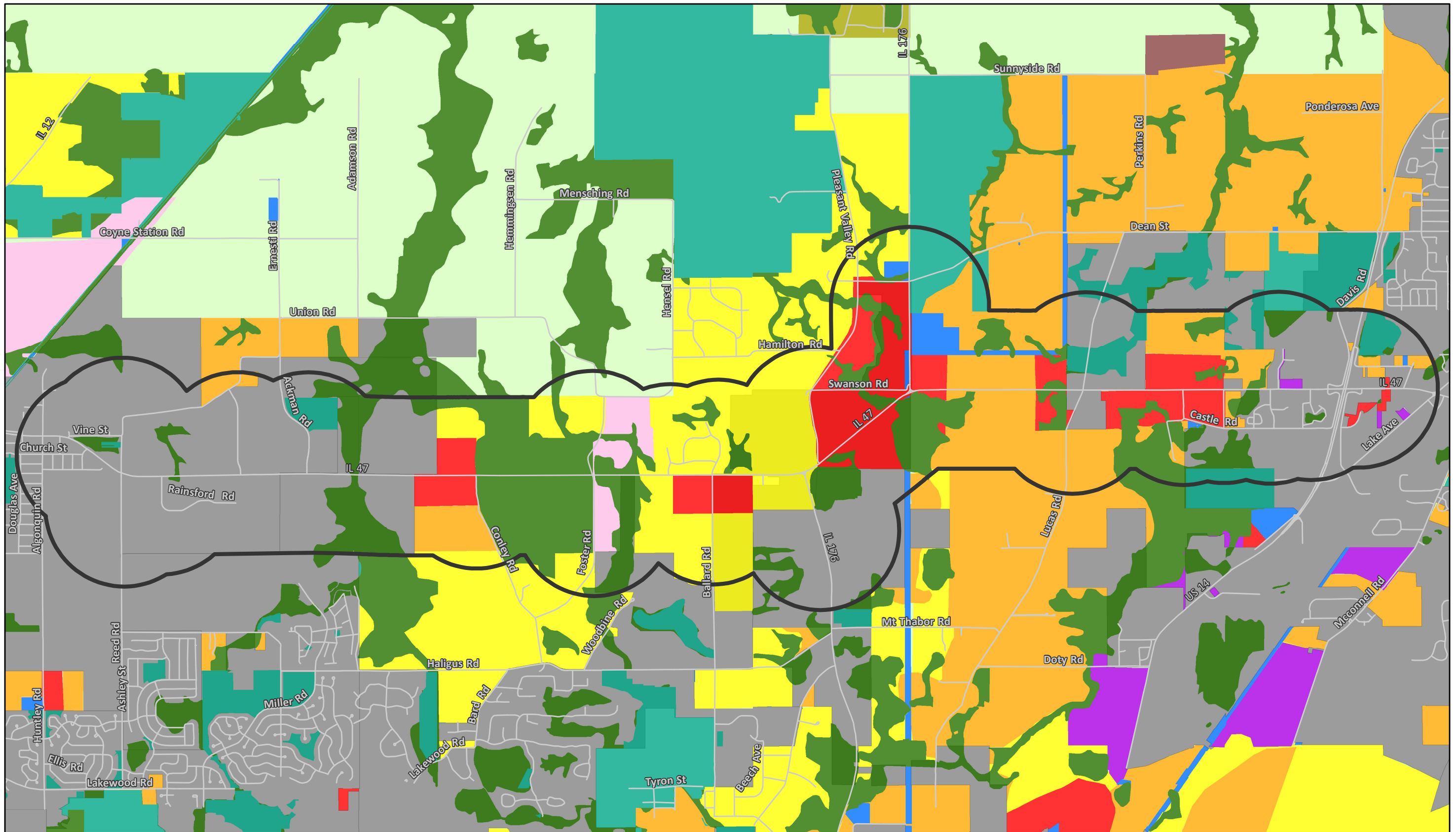
- |                    |                          |                           |                                |
|--------------------|--------------------------|---------------------------|--------------------------------|
| Municipal Boundary | <b>Existing Land Use</b> | Environmentally Sensitive | Residential                    |
| Half Mile Buffer   | Agriculture              | Industrial                | Trans/Communications/Utilities |
| Streets            | Commercial               | Institutional             | Open Space/Recreation          |
|                    |                          | Water                     |                                |



ILLINOIS ROUTE 47 STUDY  
**Exhibit 4-3**  
**Existing Land Use**  
 Date: 4/7/2014

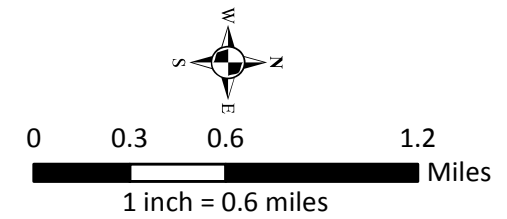
**Exhibit 4-4**

**Proposed Land Use in Project Corridor**



**Legend**

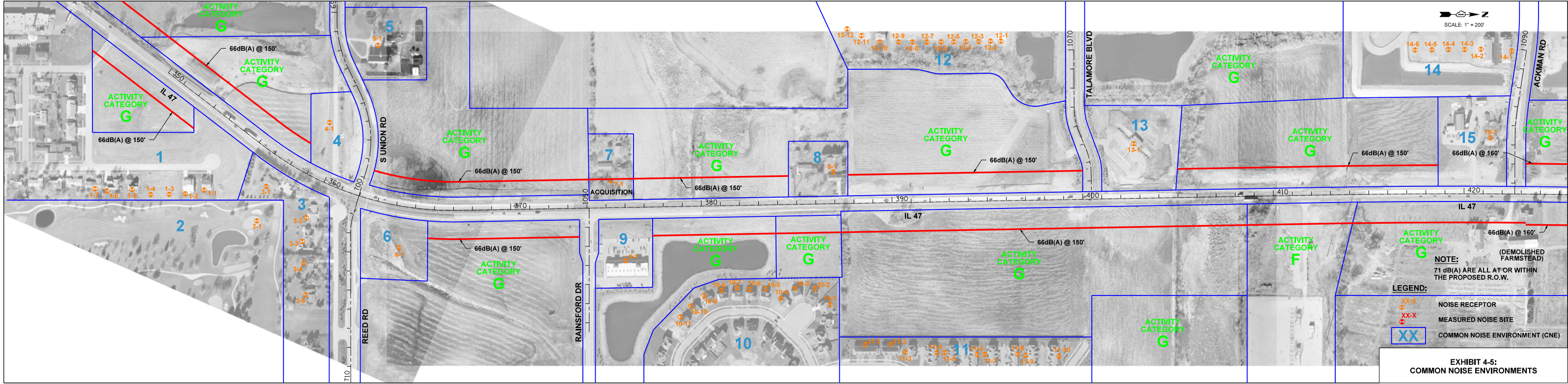
- |                      |                           |                 |                      |             |
|----------------------|---------------------------|-----------------|----------------------|-------------|
| Half Mile Buffer     | Future Land Use           | Estate          | Isolated Residential | Open Space  |
| Streets              | Agriculture               | Institutional   | Mixed Use            | Residential |
| Municipal Boundaries | Environmentally Sensitive | Isolated Estate | ORI                  | Retail      |



ILLINOIS ROUTE 47 STUDY  
**Exhibit 4-4**  
**Future Land Use**

Date: 4/7/2014

**Exhibit 4-5**  
**Common Noise Environments**



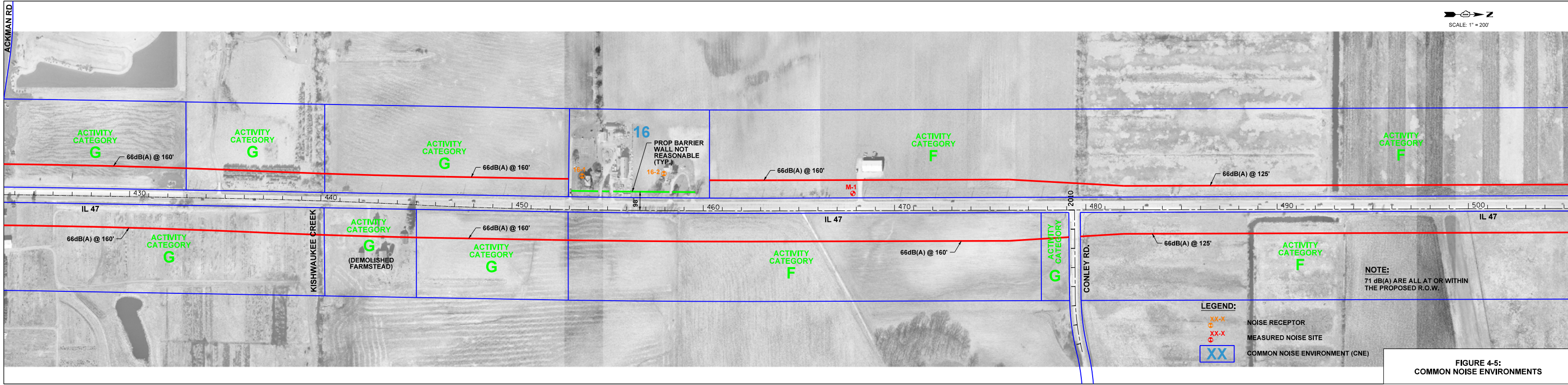


FIGURE 4-5:  
COMMON NOISE ENVIRONMENTS

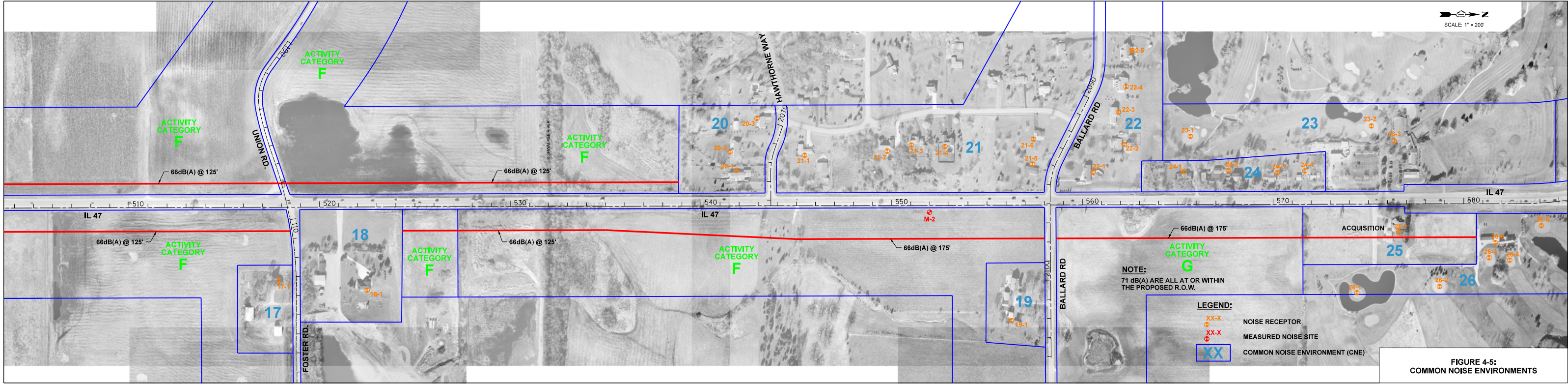
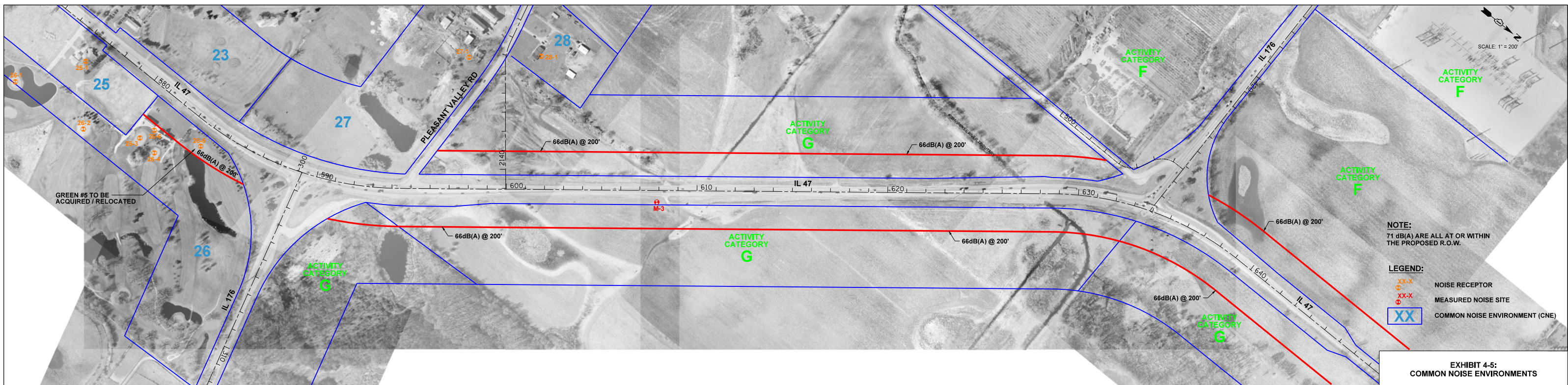


FIGURE 4-5:  
COMMON NOISE ENVIRONMENTS



GREEN #5 TO BE ACQUIRED / RELOCATED

SCALE: 1" = 200'

**NOTE:**  
71 dB(A) ARE ALL AT OR WITHIN THE PROPOSED R.O.W.

**LEGEND:**  
 XX-X NOISE RECEPTOR  
 XX-X MEASURED NOISE SITE  
 XX COMMON NOISE ENVIRONMENT (CNE)

**EXHIBIT 4-5:  
COMMON NOISE ENVIRONMENTS**



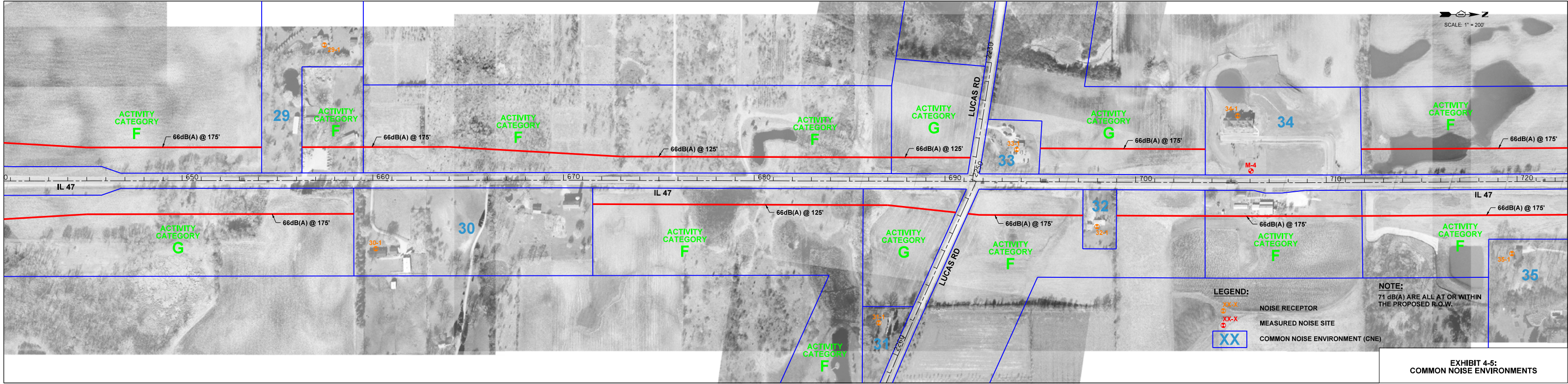


EXHIBIT 4-5:  
COMMON NOISE ENVIRONMENTS



**Appendix A**  
**Agency Coordination**

## Wetlands

<b>Submittal Date:</b> 09/05/2008	<b>Sequence No:</b> 14677	<b>Project No:</b>
<b>District:</b> 1	<b>Requesting Agency:</b> DOH	<b>Project No:</b>
<b>Contract #:</b>	<b>Job No.:</b> P-91-101-07	
<b>Counties:</b> McHenry		
<b>Route:</b> FAP 326	<b>Marked:</b> IL 47	
<b>Street:</b> S. Eastwood Drive		<b>Section:</b>
<b>Municipality(ies):</b> Huntley, Woodstock	<b>Project Length:</b> 12.070 km	7.5 miles
<b>FromTo (At):</b> Reed Rd. to US 14		
<b>Quadrangle:</b> Huntley, Woodstock	<b>Township-Range-Section:</b> T43N, R7E, T44M, R7E	
<b>Survey Target Date:</b>	<b>Anticipated Design Apprvl:</b> 11/30/2010	<b>Cleared for Design Apprvl:</b> 06/02/2014
<b>Cleared for Letting:</b>	<b>Mitigation:</b> Yes	<b>Mitigation Completed:</b>

**Initial Survey and WIE**

**Addendum No:**

Initiated	Due Date	Results Received	Wetland Present	District Notified	WIE Requested	WIE Received	Wetland Impacts	Resp to District	Coord Complete
09/29/2008	08/21/2009	01/27/2010	Yes	01/27/2010	Yes	05/13/2014	Yes	06/02/2014	No

**Comments:** Seq. 14964 part of this job; 7/15/09: deadline extended from 6/30/09 to 8/7/09 due to hi water/scope, ok w/ D-1; 8/3/09: deadline changed fr 8/7/09 to 8/14/09; told D-1; 8/14/09: INHS deadline changed to 8/21/09; told dst; 8/24/09: sent wet rep to dst; 1/27/10: wet del redone w/ ADIDs; 6/1/10: sent wet del to IDNR, FWS, COE (SED)

**Clearances:** Cultural: 11/18/2009 Bio 8/4/2010 SW:

<b>Submittal Date:</b> 11/19/2010	<b>Sequence No:</b> 14677 A	<b>Project No:</b>
<b>District:</b> 1	<b>Requesting Agency:</b> DOH	<b>Project No:</b>
<b>Contract #:</b>	<b>Job No.:</b> P-91-101-07	
<b>Counties:</b> McHenry		
<b>Route:</b> FAP 326	<b>Marked:</b> IL 47	
<b>Street:</b> S. Eastwood Drive		<b>Section:</b>
<b>Municipality(ies):</b> Huntley, Woodstock	<b>Project Length:</b> 12.070 km	7.5 miles
<b>FromTo (At):</b> Reed Rd. to US 14		
<b>Quadrangle:</b> Huntley, Woodstock	<b>Township-Range-Section:</b> T43N, R7E, T44M, R7E	
<b>Survey Target Date:</b>	<b>Anticipated Design Apprvl:</b> 11/30/2010	<b>Cleared for Design Apprvl:</b> 06/02/2014
<b>Cleared for Letting:</b>	<b>Mitigation:</b> Yes	<b>Mitigation Completed:</b>

**Initial Survey and WIE**

**Addendum No:** A

Initiated	Due Date	Results Received	Wetland Present	District Notified	WIE Requested	WIE Received	Wetland Impacts	Resp to District	Coord Complete
11/29/2010	06/30/2011	08/22/2011	Yes	08/30/2011	Yes		Yes		No

**Comments:** 7/22/11: discussed w/ INHS (SW); will do field work for WOUS of orig proj now that that is required; submit w/ Add. A report in couple wks (SDH)

**Clearances:** Cultural: 11/24/2010 Bio 8/30/2011 SW: 6/20/2011

**Submittal Date:** 05/01/2013 **Sequence No:** 14677 B  
**District:** 1 **Requesting Agency:** DOH **Project No:**   
**Contract #:** **Job No.:** P-91-101-07  
**Counties:** McHenry  
**Route:** FAP 326 **Marked:** IL 47  
**Street:** S. Eastwood Drive **Section:**   
**Municipality(ies):** Huntley, Woodstock **Project Length:** 12.875 km 8 miles  
**FromTo (At):** Reed Rd. to US 14  
**Quadrangle:** Huntley, Woodstock **Township-Range-Section:** T43N, R7E, T44M, R7E  
**Survey Target Date:** 11/01/2013 **Anticipated Design Apprvl:** 12/31/2013 **Cleared for Design Apprvl:** 06/02/2014  
**Cleared for Letting:** **Mitigation:** Yes **Mitigation Completed:**

**Initial Survey and WIE**

**Addendum No:** B

Initiated	Due Date	Results Received	Wetland Present	District Notified	WIE Requested	WIE Received	Wetland Impacts	Resp to District	Coord Complete
05/17/2013	08/17/2013	09/03/2013	Yes	09/13/2013	Yes	05/12/2014	Yes		No

**Comments:** Deadline extended to 8/22/13 for Jesse (SDH)

**Clearances:** Cultural: 12/4/2013 Bio: 9/13/2013 SW: 10/30/2013

**Processing** Programmatic Action

**Individual Compensation Plan Required:**

**404 Individual Permit Required:**

**Mitigation Site:** Wetland Bank Site  
**Mitigation Basin:** In-Basin  
**Bank:** Yes  
**Accumulation:** No

**Owner:**  
**Name:**  
**Location:**  
**Size:**  
**Types:**  
**Quad:**  
**Basin:**

**Processing Comments:**

**Wetland Impacts Evaluation**

**Submittal Date:** 04/03/2014 **Submitted By:**  
**Does the project have wetland impacts?** Yes **Type:** Permanent  
**Briefly describe the measures considered to avoid and minimize adverse impacts to the wetlands:** Multiple alternatives were were studies, the alternative with the least amount of wetland impacts was chosen. The median was narrowed from 50' to 30', further minimizing impacts.  
**Summarize briefly why there are no practicable alternatives to the use of the wetland(s):** Wetlands are on both sides of existing IL 47.  
**Wetland mitigation is being proposed:** wetland bank site  Reviewed

**Memo Date:** 06/02/2014 **Memo By:** Susan Hargrove

**Memo:** The WIE is acceptable to this office after questions were answered and revisions made. Please note that this WIE response should be considered preliminary because this is early in the review process; therefore, wetland impacts and thus mitigation acreage are likely to change at a later date. Because this project occurs along existing alignment, it shall be processed as a Programmatic Review Action in accordance with the IDOT Wetlands Action Plan. ADID and/or High Functional Value wetlands shall be mitigated at 3:1 ratio. Wetland 12 shall be mitigated at 5.5:1.0 ratio due to mean C of 4.0. Mitigation may occur at an in-basin or out-of-basin bank. Exact mitigation location shall be determined at a later date. If the bank is in-basin, the mitigation ratio shall be 1.5:1.0 for most wetlands, with 67.13 acres of wetland mitigation. If the bank is out-of-basin, the mitigation ratio shall be 2:1 for most wetlands, with 74.64 acres of wetland mitigation. This office concurs. Total wetland impacts are 25.77 ac. Please see attached for details of wetland impacts and mitigation ratios.

WOUS impacts totaling 1.49 ac require mitigation at 1.5:1.0 ratio, resulting in 2.24 acreage of mitigation.

Because of the large acreage of wetland impacts, this project will need to be coordinated with Mr. Patrick Malone of IDNR for his concurrence regarding wetland mitigation. The coordination will occur when the project is closer to construction. Hence, this project is cleared for design approval but not letting, with respect to wetlands.

**Memo Date:** 04/03/2014      **Memo By:** V. Ruiz

**Memo:** ADID Wetland sites: 3w - K1453; 27 - K1008; 32e-K1008; 33w-K1006; 42-K984; 45-K925; 46e-K925; 56e-k711; 57-K663; 59-K633. The following ADID site was not picked up by the INHS, as such there is no corresponding site number. Impacts were assessed as it is mapped ADID. The site was also verified using aerial photography, ADID K-669. ADID sites K820 and K692 were also identified via ADID maps, however there are no impacts to these two sites. Mitigation ratios for ADID site shall be 5.5:1. WOUS impacts total 1.49 acres. Please refer to "WOUS impact spreadsheet" in Sharepoint.

**Wetland Impacts and Mitigation Required**

Site No.	Type	T&E	Nature Preserve	Natural Area	Essential Habitat	Size (acres)	Acres of Impact	Ratio	Acres of Compensation
2	Marsh	No	No	No	No	1.81	.060	2.0	.120
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.2		
<b>Describe the work:</b>	Fill								
3e	Marsh	No	No	No	No	0.24	.240	2.0	.480
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	11.0		
<b>Describe the work:</b>	Fill								
3w	Marsh	No	No	No	No	11.0	.290	3.0	.870
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.8		
<b>Describe the work:</b>	Fill								
4	Marsh	No	No	No	No	0.57	.570	2.0	1.140
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.8		
<b>Describe the work:</b>	Fill								
5	Marsh	No	No	No	No	1.51	.050	2.0	.100
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.5		
<b>Describe the work:</b>	Fill								
6	Marsh	No	No	No	No	0.58	.250	2.0	.500
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	11.0		
<b>Describe the work:</b>	Fill								
8	Marsh	No	No	No	No	0.36	.250	2.0	.500
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	9.6		
<b>Describe the work:</b>	Fill								
9	Forested	No	No	No	No	2.0	.230	2.0	.460
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	10.9		
<b>Describe the work:</b>	Fill								
10	Marsh	No	No	No	No	0.8	.330	2.0	.660
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.8		
<b>Describe the work:</b>	Fill								
11	Marsh	No	No	No	No	0.18	.180	2.0	.360
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.9		
<b>Describe the work:</b>	Fill								
12	Wet Mead	No	No	No	No	206+	4.940	5.5	27.170
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	15.5		
<b>Describe the work:</b>	Fill								
13	Pond	No	No	No	No	5.0+	.480	2.0	.960
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	8.1		
<b>Describe the work:</b>	Fill								
14	Farmed	No	No	No	No	0.88	.400	2.0	.800
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	1.6		
<b>Describe the work:</b>	Fill								

15	Wet Mead	No	No	No	No	17+	.380	2.0	.760
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	11.3		
<b>Describe the work:</b>	Fill								
16	Marsh	No	No	No	No	2.0+	.280	2.0	.560
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	3.0		
<b>Describe the work:</b>	Fill								
17	Wet Mead	No	No	No	No	1.61	.680	2.0	1.360
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	5.7		
<b>Describe the work:</b>	Fill								
18	Farmed	No	No	No	No	0.38	.080	2.0	.160
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	4.0		
<b>Describe the work:</b>	Fill								
19	Marsh	No	No	No	No	14.0+	.800	2.0	1.600
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	9.4		
<b>Describe the work:</b>	Fill								
20	Forested	No	No	No	No	2.64	.340	2.0	.680
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	14.8		
<b>Describe the work:</b>	Fill								
21	Wet Mead	No	No	No	No	12.0+	.030	2.0	.060
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	9.2		
<b>Describe the work:</b>	Fill								
23	Wet Mead	No	No	No	No	0.04	.040	2.0	.080
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	3.5		
<b>Describe the work:</b>	Fill								
25	Forested	No	No	No	No	0.57	.570	2.0	1.140
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	9.4		
<b>Describe the work:</b>	Fill								
27	Forested	No	No	No	No	27.0+	.190	3.0	.570
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	15.8		
<b>Describe the work:</b>	Fill								
28	Forested	No	No	No	No	0.17	.170	2.0	.340
<b>Basin</b>	07120006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	13.3		
<b>Describe the work:</b>	Fill								
32e	Wet Mead	No	No	No	No	27+	.500	3.0	1.500
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.3		
<b>Describe the work:</b>	Fill								
32w	Wet Mead	No	No	No	No	0.37	.150	2.0	.300
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.3		
<b>Describe the work:</b>	Fill								
33e	Wet Mead	No	No	No	No	1.15	.470	2.0	.940
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	4.0		
<b>Describe the work:</b>	Fill								
33w	Wet Mead	No	No	No	No	9+	.750	3.0	2.250
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	4.0		
<b>Describe the work:</b>									
42	Wet Mead	No	No	No	No	6+	.080	3.0	.240
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	10.5		
<b>Describe the work:</b>	Fill								
43	Marsh	No	No	No	No	5.09	.730	2.0	1.460
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	17.1		
<b>Describe the work:</b>	Fill								
44	Marsh	No	No	No	No	1.88	.050	2.0	.100
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	8.7		
<b>Describe the work:</b>	Fill								

45	Marsh	No	No	No	No	53+	.830	3.0	2.490
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.5		
<b>Describe the work:</b>		Fill							
46e	Wet Shrub	No	No	No	No	53+	.540	3.0	1.620
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	4.2		
<b>Describe the work:</b>		Fill							
46w	Wet Shrub	No	No	No	No	0.44	.440	2.0	.880
<b>Basin</b>	07120006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	4.2		
<b>Describe the work:</b>		Fill							
47	Farmed	No	No	No	No	0.27	.060	2.0	.120
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	8.9		
<b>Describe the work:</b>		Fill							
48	Wet Mead	No	No	No	No	0.36	.360	2.0	.720
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	8.9		
<b>Describe the work:</b>		Fill							
49	Marsh	No	No	No	No	13+	2.380	2.0	4.760
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.0		
<b>Describe the work:</b>		Fill							
52	Wet Mead	No	No	No	No	0.55	.550	2.0	1.100
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	5.0		
<b>Describe the work:</b>		Fill							
53	Wet Mead	No	No	No	No	1.46	.840	2.0	1.680
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	2.8		
<b>Describe the work:</b>		Fill							
54	Wet Mead	No	No	No	No	3.0+	1.160	2.0	2.320
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	5.8		
<b>Describe the work:</b>		Fill							
56e	Wet Mead	No	No	No	No	8.0	.550	3.0	1.650
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	5.3		
<b>Describe the work:</b>		Fill							
56w	Wet Mead	No	No	No	No	1.52	.460	2.0	.920
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	5.3		
<b>Describe the work:</b>		Fill							
57	Marsh	No	No	No	No	17+	1.280	3.0	3.840
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	9.4		
<b>Describe the work:</b>		Fill							
58	Wet Mead	No	No	No	No	0.5	.050	2.0	.100
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	6.4		
<b>Describe the work:</b>		Fill							
59	Marsh	No	No	No	No	10+	.680	3.0	2.040
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	6.3		
<b>Describe the work:</b>		Fill							
62	Wet Mead	No	No	No	No	0.01	.010	2.0	.020
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	8.3		
<b>Describe the work:</b>		Fill							
63	Marsh	No	No	No	No	0.04	.040	2.0	.080
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.7		
<b>Describe the work:</b>		Fill							
64	Pond	No	No	No	No	0.13	.130	2.0	.260
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	10.7		
<b>Describe the work:</b>		Fill							
65	Marsh	No	No	No	No	0.23	.230	2.0	.460
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	6.8		
<b>Describe the work:</b>		Fill							



66	Marsh	No	No	No	No	1.64	.050	2.0	.100
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.4		
<b>Describe the work:</b>		Fill							
67	Marsh	No	No	No	No	0.36	.040	2.0	.080
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.5		
<b>Describe the work:</b>		Fill							
68	Farmed	No	No	No	No	0.04	.010	2.0	.020
<b>Basin</b>	07090006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	NA		
<b>Describe the work:</b>		Fill							
71	Forested	No	No	No	No	1.35	.330	2.0	.660
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	11.0		
<b>Describe the work:</b>		Fill							
73	Wet Mead	No	No	No	No	0.68	.070	2.0	.140
<b>Basin</b>	07090006	<b>Quadrangle</b>	Huntley			<b>FQI</b>	7.2		
<b>Describe the work:</b>		Fill							
669	Farmed	No	No	No	No	13	.120	3.0	.360
<b>Basin</b>	07120006	<b>Quadrangle</b>	Woodstock			<b>FQI</b>	NA		
<b>Describe the work:</b>		Fill							
<b>Total</b>							25.770		74.640

Mitigation Site Suitability Study:

Wetland Compensation Plan:

Preparer:

Preparer:

Conceptual					Final				
Plan Received	Agency	Report Sent and District Notified	Agency Response	District Notified	Plan Received	Agency	Report Sent and District Notified	Agency Response	District Notified
	IDNR					IDNR			
	USFWS					USFWS			
	COE					COE			

**Monitoring**

	Monitoring Reports				Monitoring Agency: <input type="text"/>
	Received	COE Notified	IDNR Notified	District Notified	
Year 1					Construction Begin Date: <input type="text"/>
Year 2					Construction Complete Date: <input type="text"/>
Year 3					Tasked Date: <input type="text"/>
Year 4					Monitoring Begin Date: <input type="text"/>
Year 5					Monitoring Complete Date: <input type="text"/>

Monitoring Comments:

Permit(s) Type:  Corps Dist.:  Permit Issued:

Special Conditions:

Permit Agreements/Commitments:

**Project Phase**

**Project  
Phase  
Comments:**

--

**From:** Samudovsky, Joseph  
**Sent:** Thursday, April 03, 2014 3:38 PM  
**To:** Morse, Marnell M  
**Cc:** Schumm, Linda K.  
**Subject:** RE: IL 47 from Reed Road to US 14 McHenry County

Marty:

I am following up in regards to the private airstrip "Phyllis Field" near the proposed IL 47 improvement project. Based on the information provided, it appears the runway will need to be shortened approximately 70 on the West end of the airstrip. With the displaced threshold to provide a clear 15:1 approach slope, this will bring the effective length of the runway from 2,000 down to 1,930. The State minimum length for a private sod runway is 1,600'.

Thank you,

**Joseph Samudovsky**

*Flight Safety Coordinator*

Illinois Department of Transportation

Division of Aeronautics

1 Langhorne Bond Drive

Springfield, IL 62707

T: (217) 524-5269 M: (217) 685-2945

F: (217) 785-4533

[Joseph.Samudovsky@illinois.gov](mailto:Joseph.Samudovsky@illinois.gov)

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 Please consider the environment before printing this e-mail.



# Illinois Department of Transportation

## Memorandum

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To: John Fortmann                      Attn: Pete Harmet  
From: John Baranzelli                By: Brad Koldehoff  
Subject: Cultural Resource Concurrence  
Date: December 4, 2013

---

**McHenry County**  
**FAP 326, IL 47**  
**Job No. P-91-101-07**  
**Seq. #14677B**

The attached letter documents the concurrence of the State Historic Preservation Officer in the following determination by IDOT's professional cultural resources staff: "No Historic Properties Affected." This concurrence completes the necessary cultural resource coordination for the above referenced project.

Attachment

BK:km

A handwritten signature in cursive script, reading "Brad Koldehoff".



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

McHenry County  
FAP 326, IL 47  
Huntley & Woodstock  
Roadway Improvements  
IDOT Sequence #14677B  
ISAS Log #13064

December 3, 2013

Federal - Section 106 Project

## ***NO HISTORIC PROPERTIES AFFECTED***

Ms. Anne Haaker  
Deputy State Historic Preservation Officer  
Illinois Historic Preservation Agency  
Springfield, Illinois 62701

Dear Ms. Haaker:

Enclosed are copies of the Phase I Survey Report completed by Illinois State Archaeological Survey personnel concerning historical and archaeological resources potentially impacted by the above referenced project. Survey of the 40-acre project area resulted in the identification of one archaeological site (11MH516), a late 19<sup>th</sup> to middle 20<sup>th</sup> century Euro-American habitation, which lacks integrity and information potential. No architectural resources eligible for National Register consideration were identified by IDOT's cultural resources staff within the project area.

In accordance with the established procedure for coordination of proposed IDOT projects, we request the concurrence of the State Historic Preservation Officer in our determination that no historic properties subject to protection under Section 106 of the National Historic Preservation Act of 1966, as amended, will be affected by the proposed project.

Very truly yours,

Brad H. Koldehoff, RPA  
Cultural Resources Unit  
Bureau of Design and Environment

# CONCUR

By:   
Deputy State Historic Preservation Officer

Date: 12/3/13



**Illinois Department of Transportation**

201 West Center Court  
Schaumburg, IL 60196-1096

**Informal Transmittal**

To:	Kimberly Murphy
Bureau:	Programming
Attn:	Cary Lewis

From:	Tyler Petersen
Bureau:	Programming
	Environmental Studies Unit
Subject:	IL 47; Reed Rd. to US 14
	Special Waste

Date:	11/05/2013
-------	------------

**Please check appropriate box below:**

- |  |  |                                 |
|--|--|---------------------------------|
| <input type="checkbox"/> Take Necessary Action | <input checked="" type="checkbox"/> For Your Information | <input type="checkbox"/> Reply  |
| <input type="checkbox"/> For Your Comments     | <input type="checkbox"/> See Me About the Attached       | <input type="checkbox"/> Return |
| <input type="checkbox"/> Per Your Request      | <input type="checkbox"/> Draft (Letter)(Memo) For        | <input type="checkbox"/> Route  |
| <input type="checkbox"/> For Your Approval     | My signature   | <input type="checkbox"/> File   |

**Message**

Attached is a copy of the PESA for the above-mentioned project. The PESA Review cover memo, dated October 30, 2013, states that there are Recognized Environmental Conditions (REC's) along the project route and that further studies may be required if the project will require land acquisition or linear excavation from or adjacent to a property with RECs. Special Waste studies are now complete for Phase I and the project is clear for Design Approval.

A Special Design/Construction Consideration shall be added to the Project Report that states:

\*\*\*\*\* "A Preliminary Environmental Site Assessment (PESA) has been completed for this project. It is the responsibility of Phase II to determine if any of the sites or ROW adjacent to the site will be impacted with the proposed work and/or if any ROW will be required at any of the locations."

If you have any questions, please call me at extension 4122.

Signature

Copies to	PESA File	David Howorth – Land Acq.	
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**Response**

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Signature





# Illinois Department of Transportation

## Memorandum

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To: John Fortmann                      ATTN: Peter E. Harnet  
From: John D. Baranzelli              By: Thomas C. Brooks  
Subject: Biological Resources Review  
Date: September 13, 2013

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*Thomas C Brooks*

FAP 326 (IL 47) Addendum B  
Job No. P-91-101-07 (Seq. 14677B)  
From Reed Road to US 14  
Municipalities of Huntley and Woodstock  
McHenry County

The Natural Resources Unit has reviewed this project. The project, as described on the Environmental Survey Request Form, does not require biological surveys. The IDNR Natural Heritage Database has no new records of listed species, natural areas or nature preserves within the project corridor, discussed below. The records previously described are still extant; see prior coordination for details (three IDNR DIRT Reports dated May 17, 2013, which updated the entire project). In accordance with the 2013 Memorandum of Understanding by and between IDNR and IDOT, consultation is terminated based upon implementation of previously agreed upon commitments.

### Commitment for Iowa Darter

The prior commitment described in the Biological Resources Reviews dated July 23, 2010, for the original project and August 30, 2011 for Addendum A still applies to Addendum B and is described below:

Please place the following commitment in the final project plans or plan notes in the appropriate location:

No instream work shall occur April 1 through June 15 of any construction year at the following two locations:

1. Site 1: Kishwaukee River at IL route 47, approximately 0.6 miles south of U.S. 14.
2. Site 2: Kishwaukee River at IL Route 47, approximately 5 miles south of U.S. 14.
- 3.

**Please note that the start date of the commitment is April 1, a change from the original start date of April 25.**



A preliminary review was performed of the project area for the potential impact on threatened or endangered species pursuant to Section 7 of the Endangered Species Act as amended. The following threatened or endangered species are listed by the United States Fish and Wildlife Service (USFWS) as occurring in McHenry County: Eastern prairie fringed orchid (*Platanthera leucophaea*) and prairie bush clover (*Lespedeza leptostachya*). This office has determined that there will be no effect to the species listed for McHenry County, Illinois, as described below. Please keep this memorandum in your project files as it documents and concludes consultation with the IDNR and USFWS.

The federally threatened and Illinois endangered Eastern prairie fringed orchid (*Platanthera leucophaea*) is a plant of open-canopied mesic to wet prairies and wetlands. There is no prairie or high quality wetland (FQI of 20 and/or mean C of 3.5 or greater) within the project area, except Wetland Site 12, which is a wet meadow with a mean C of 4. However, the site is dominated with exotic invasive reed canary grass, one of only five species at this site. The reason it has a mean C of 4 is due to the presence of two species each with high coefficients of conservatism of 5 (*Mentha arvensis* var. *villosa* and *Stachys palustris* var. *homotricha*). Therefore, we conclude absence of Eastern prairie fringed orchid in the project area.

Prairie bush clover requires dry to mesic prairies with gravelly soils. There is no such habitat in the project area.

The National Wetland Inventory Map (Antioch Quadrangle) depicts wetlands in the project area. The project was sent for field survey, with results received September 3, 2013. The INHS wetland delineation report and GIS data are posted on the shared drive. The results of the survey indicate the presence of 11 jurisdictional wetlands within the project area (Sites 6, 12, 20, 45, 57, 68, 69, 70, 71, 73, and 74). Please see the attached wetland report for further details.

In accordance with IDOT BDE Manual Section 26-8, wetland impacts are to be avoided, minimized and then mitigated. Section 26-8.05(c)4 states that for all projects that are surveyed for wetlands and determined to have wetlands within the study area, a Wetland Impact Evaluation (WIE) form must be completed and submitted to the BDE, even if there are no wetland impacts. Further information on completing and processing of WIEs is contained in IDOT BDE Manual Section 26-8.

By agreement, no coordination with the Illinois Department of Natural Resources and the U.S. Fish and Wildlife Service is required at this time.

SDH



2500 LAKE AVENUE • VILLAGE OF LAKEWOOD, IL 60014  
815 / 459-3025 • FAX 815 / 459-3156

May 17, 2013

Mr. John Fortmann, Acting Deputy Director  
Region 1 Engineer  
Illinois Department of Transportation  
201 W. Center Court  
Schaumburg, IL 60196

**RE: Intersection Improvements at IL Route 47 and IL Route 176**

Dear Mr. Fortmann:

Thank you for arranging for your staff to meet with us to discuss the proposed intersection improvements to the southern junction of IL Route 47 and IL Route 176. As always, we truly appreciate the respect accorded to us by staff and the dialogue about roadway improvements.

In terms of a meeting summary, we were simply seeking to affirm the conceptual support of the Illinois Department of Transportation (IDOT) for the improvements to the aforementioned intersection that were initially reviewed in 2010. In general, these improvements consist of realigning Pleasant Valley Road (currently located approximately 500 feet north of the southern intersection) with the southern leg of IL Route 176 to create a signalized four way intersection (it is currently a T intersection). Please see the attached preliminary engineering plan for additional detail. During our meeting on April 10, 2013 minor revisions to the initial plan were discussed and a final plan will be completed in full cooperation with IDOT staff.

One of the significant changes since 2010 has been our purchase of approximately forty-five (45) acres of property immediately west of the southern intersection of IL Route 47 and IL Route 176. The purchase of this property allows the Village of Lakewood to work cooperatively with IDOT regarding the right-of-way that will be needed for the realignment of Pleasant Valley Road.

As stated at several times throughout the meeting, the Village of Lakewood is not specifically seeking funding from IDOT for this project – simply conceptual approval and support so that we can aggressively work to identify alternative funding sources. Thank you for the time that you and your staff have already invested in this project. Please do not hesitate to contact me for further information or assistance regarding this matter.

Sincerely,

Erin Smith, President  
Village of Lakewood

cc: Mr. Steve Travia, P.E.  
Bureau Chief of Traffic Operations

<b>RECORD OF DISCUSSION</b>		ORIGINAL TO FILE	60039027
		COPY TO FILE(S)	
<b>PROJECT NUMBER</b> 60039027		<b>PROJECT DESCRIPTION</b> IL 47 Reed Rd to US 14 Environmental Assessment	
<b>BY</b> Cheryl Nash		<b>DATE</b> 6/18/2012	<b>TIME</b> 10:45
<b>WITH</b>		<b>ORGANIZATION</b> U.S. Consolidated Farmed Service Agency	
<b>OUTGOING CALL</b> <input checked="" type="checkbox"/>	<b>INCOMING CALL</b> <input type="checkbox"/>	<b>TELEPHONE NUMBER</b> 815.338.0099	<b>FAX NUMBER</b>
<b>VISIT</b> <input type="checkbox"/>	<b>SITE/LOCATION</b>		
<b>TOPIC</b> Protected agricultural areas in project corridor.			
<b>DISCUSSION</b> I requested information on the potential for there to be Centennial Farms or Conservation Reserve Program farms within the project corridor. I was told that there are no farms of either category within the corridor.			
<b>ACTION REQUIRED</b> none		<b>ACTION TAKEN</b> none	



# Illinois Department of Transportation

## Memorandum

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To: Diane M. O'Keefe                      Attn: Peter E. Harmet  
From: Scott E. Stitt                      By: Thomas C. Brooks  
Subject: Biological Resources Review  
Date: August 30, 2011

---

*Thomas C. Brooks*

FAP 326 (IL 47) Addendum A  
Job No. P-91-101-07 (Seq. 14677A)  
From Reed Road to U.S. 14  
McHenry County

The Natural Resources Unit has reviewed this project. The project, as described on the Environmental Survey Request Form, does not require biological surveys. The IDNR Natural Heritage Database has a record of the state threatened Iowa darter (*Etheostoma exile*) within the project corridor (IDNR EcoCAT Response letter dated November 29, 2010). In accordance with the 2011 Memorandum of Understanding by and between IDNR and IDOT, consultation is terminated with the implementation of the prior commitment to protect the Iowa darter; see below. **Please note that the start date of the commitment is April 1, a change from a previous start date of April 25.**

### Commitment for Iowa Darter

Please place the following commitment in the final project plans or plan notes:

No instream work shall occur April 1 through June 15 of any construction year at the following two locations:

1. Site 1: Kishwaukee River at IL Route 47, approximately 0.6 miles south of U.S. 14.
2. Site 2: Kishwaukee River at IL Route 47, approximately 5 miles south of U.S. 14.

A preliminary review was performed of the project area for the potential impact on threatened or endangered species pursuant to Section 7 of the Endangered Species Act as amended. The following threatened or endangered species are listed by the United States Fish and Wildlife Service (USFWS) as occurring in McHenry County: Eastern prairie fringed orchid (*Platanthera leucophaea*) and prairie bush clover (*Lespedeza leptostachya*). This office has determined that there will be no effect to the species listed for McHenry County, Illinois, as described below. Please keep this memorandum in your project files as it documents and concludes consultation with the IDNR and USFWS.

The federally threatened and Illinois endangered Eastern prairie fringed orchid (*Platanthera leucophaea*) is a plant of open-canopied mesic to wet prairies and wetlands. There is no prairie or high quality wetland (FQI at or above 20 or native mean C of 3.5 or greater with 4 or more associates present) within the project area. Wetland Sites 61 and 64 had mean Cs of 3.5 and 3.6, respectively. However, Wetland Sites 61 and 64 contained only one associate each (*Carex vulpinoidea* and *Lycopus americanus*, respectively). Therefore, we conclude absence of Eastern prairie fringed orchid in the project area.

The prairie bush clover requires dry to mesic prairies with gravelly soils. There is no such habitat in the project area.

The National Wetland Inventory Map (Huntley and Woodstock Quadrangles) depicts wetlands in the project area. The project was sent for field survey, with results received August 22, 2011. The INHS wetland delineation report and GIS data are posted on the shared O: drive. The results of the survey indicate the presence of ten jurisdictional wetlands within the project area (Sites 12, 19, 20, 32, 60-64, and 67 with Sites 27, 28, 52, 65 and 66 considered isolated) and twelve Waters of the United States (Sites 1-12).

In accordance with IDOT BDE Manual Section 26-8, wetland impacts are to be avoided, minimized and then mitigated. Section 26-8.05(c)4 states that for all projects that are surveyed for wetlands and determined to have wetlands within the study area, a Wetland Impact Evaluation (WIE) form must be completed and submitted to the BDE, even if there are no wetland impacts. Further information on completing and processing of WIEs is contained in IDOT BDE Manual Section 26-8.

By agreement, no coordination with the Illinois Department of Natural Resources and the U.S. Fish and Wildlife Service is required at this time.

Attachments

SDH

h/w

### Environmental Survey Request Addendum

**A. Project Information**       Bio    Cultural    Wetlands    Special Waste

Submittal Date: 11/09/2010   Sequence No: 14677 | A

District: 1   Requesting Agency: DOH   Project No: \_\_\_\_\_

Contract #: \_\_\_\_\_   Job No.: P- 91-101-07

Counties: McHenry

Route: FAP 326   Marked: IL 47

Street: S. Eastwood Drive   Section: \_\_\_\_\_

Municipality(ies): Huntley, Woodstock   Project Length: 12.070 km   7.5 miles

From To (At): Reed Rd. to US 14

Quadrangle: Huntley, Woodstock   Township-Range-Section: T43N, R7E, T44M, R7E

Anticipated Design Approval: 11/30/2010

**B. Reason for Submittal (Check all that apply)**

Acquisition of additional ROW or easement   Addendum: \_\_\_\_\_ acres   Total Project: \_\_\_\_\_ acres

In-Stream Work   Stream Name: Kishwaukee River

Other: Wetland survey needed. Not all of the wetlands at southern leg of IL 176 and IL 47 were delineated by INHS.

Field Sign Off (Bio & Cultural Only)

**C. Addendum Description:** Extended project length at cross roads, and shifted alignment to avoid homes.

**D. Tree Removal?:** Don't Know   Number?: \_\_\_\_\_ ha/ \_\_\_\_\_ acres

Existing Bridge(s) Structure Number: 056-0025   On Historic Bridge List: No

Wetland delineation performed by: BDE   End. Species Consultation performed by: BDE

<b>Contact Person:</b> Steve Schlike	<b>Local Contact Person:</b> _____
<b>Telephone #:</b> (847) 705-4125 ext.	<b>Telephone #:</b> _____
<b>Env. Contact:</b> Sam Mead	<b>E-Mail:</b> _____
<b>Telephone #:</b> 8477054101	<b>Title/Company:</b> _____

Update Entire Project

Addendum Only

Field Sign Off (Bio & Cultural Only)   \_\_\_\_\_    Received in CO   \_\_\_\_\_

**BIOLOGICAL RESOURCES**  
**NO** SURVEY OR FURTHER  
COORDINATION REQUIRED  
8-30-11  
*Thomas C. Orzales*  
SIGNED (SON) DATE  
Implement commitments.

---

**From:** Terry.Savko@Illinois.gov  
**Sent:** Thursday, February 10, 2011 4:57 PM  
**To:** MattFuller@Illinois.gov  
**Cc:** Steve.Chard@Illinois.gov  
**Subject:** Environmental Assessment-Proposed Improvement of IL Route 47 - Cooperatiing Agency  
**Attachments:** image001.jpg

Subject: IL Route 47 from Reed Road to US 14

McHenry County, Illinois

Environmental Assessment

Hi Matt,

Thank you for your February 8, 2011 correspondence notifying the Illinois Department of Agriculture (IDOA) that the Federal Highway Administration, in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment for proposed transportation improvements to IL Route 14 in McHenry County, Illinois.

Proposed improvements include the proposed upgrade of IL Route 14 from Reed Road to U.S. 14 in McHenry County.

The IDOA accepts your invitation to become a participating agency in the development of the Environmental Assessment.

Terry

---

Terry Savko, Bureau of Land and Water Resources  
State Fairgrounds, Springfield, IL 62794-9281  
217-785-4458 Fax 217-557-0993 [terry.savko@illinois.gov](mailto:terry.savko@illinois.gov)<mailto:terry.savko@illinois.gov>



## Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

RECEIVED  
FEB 22 2011  
ILLINOIS  
DIVISION

Quinn, Governor  
Marc Miller, Acting Director

February 10, 2011

Mr. Matt Fuller P.E.  
Federal Highway Administration  
3250 Executive Drive  
Springfield, IL 62703

RE: IL Rt. 47  
Reed Road to US 1'4  
McHenry Co.  
IDNR Cooperating Agency

Dear Mr. Fuller:

Thank you for the opportunity to participate as a Cooperating Agency in the development of the Environmental Assessment for the above referenced project. It is important that the Illinois Department of Natural Resources be involved in the review process to assure resources protection and compliance with the state Endangered Species Protection Act and the Illinois Wetlands Protection Act of 1989.

Please address all correspondence and meeting agenda to Mr. Steve Hamer of the Office of Realty and Environmental Planning at One Natural Resources Way, Springfield, IL. 62702-1271.

If you have any questions on the above, please contact me at 217-785-4862.

Sincerely,  
Steve Hamer  
Transportation Review Program  
Division of Environment and Ecosystems

file





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Illinois Division**

3250 Executive Park Dr.  
Springfield, IL 62703  
(217) 492-4640  
[www.fhwa.dot.gov/ildiv/index.htm](http://www.fhwa.dot.gov/ildiv/index.htm)

February 8, 2011

Refer To: HPER-IL

Ms. Terry Savko  
Illinois Department of Agriculture  
PO Box 19281  
Springfield, IL 62794-9281

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Ms. Savko:

The Federal Highway Administration (FHWA), in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment (EA) for the proposed improvement of IL Route 47 from Reed Road to U.S. 14 in McHenry County, Illinois. The FHWA and IDOT will develop the project in accordance with the Illinois NEPA-404 merger process because the project will likely require an individual Section 404 permit.

The Council on Environmental Quality regulations define a cooperating agency as, any Federal agency, other than a lead agency, which has jurisdiction by law or special expertise, with respect to any environmental impact involved in a major Federal action. State agencies may also be cooperating agencies, provided they have similar qualifications and agree to become a cooperating agency. Based on the environmental issues that will be analyzed for this project, it is likely that your agency has jurisdiction by law, or possesses special expertise with respect to environmental impacts of the proposed project. Therefore, the FHWA requests your agency become a cooperating agency for the IL Route 47 EA from Reed Road to U.S. 14 in McHenry County.

If your agency chooses to become a cooperating agency, the FHWA does not expect your agency to write or otherwise produce any portion of the EA. If you have any questions concerning cooperating agency status, please contact me by phone at (217) 492-4625 or by e-mail at [Matt.Fuller@dot.gov](mailto:Matt.Fuller@dot.gov).

Sincerely,

Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

Mr. Dan Heacok  
Illinois Environmental Protection Agency  
1021 N. Grand Avenue East  
PO Box 19276  
Springfield, IL 62794-9276

Ms. Anne Haaker  
Illinois Historic Preservation Agency  
1 Old State Capitol Plaza  
Springfield, IL 62701-1512

Mr. Steve Hamer  
Illinois Department of Natural Resources  
1 Natural Resources Way  
Springfield, IL 62702-1271

ecc: Jon-Paul Kohler, Scott McGuire, Mike Hine, Robin Helmerichs, JD Stevenson, Jan Piland,



# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Illinois Division**

3250 Executive Park Dr.  
Springfield, IL 62703  
(217) 492-4640  
[www.fhwa.dot.gov/ildiv/index.htm](http://www.fhwa.dot.gov/ildiv/index.htm)

February 8, 2011

Refer To: HPER-IL

Mr. Steve Hamer  
Illinois Department of Natural Resources  
1 Natural Resources Way  
Springfield, IL 62702-1271

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Mr. Hamer:

The Federal Highway Administration (FHWA), in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment (EA) for the proposed improvement of IL Route 47 from Reed Road to U.S. 14 in McHenry County, Illinois. The FHWA and IDOT will develop the project in accordance with the Illinois NEPA-404 merger process because the project will likely require an individual Section 404 permit.

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Sincerely,

Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

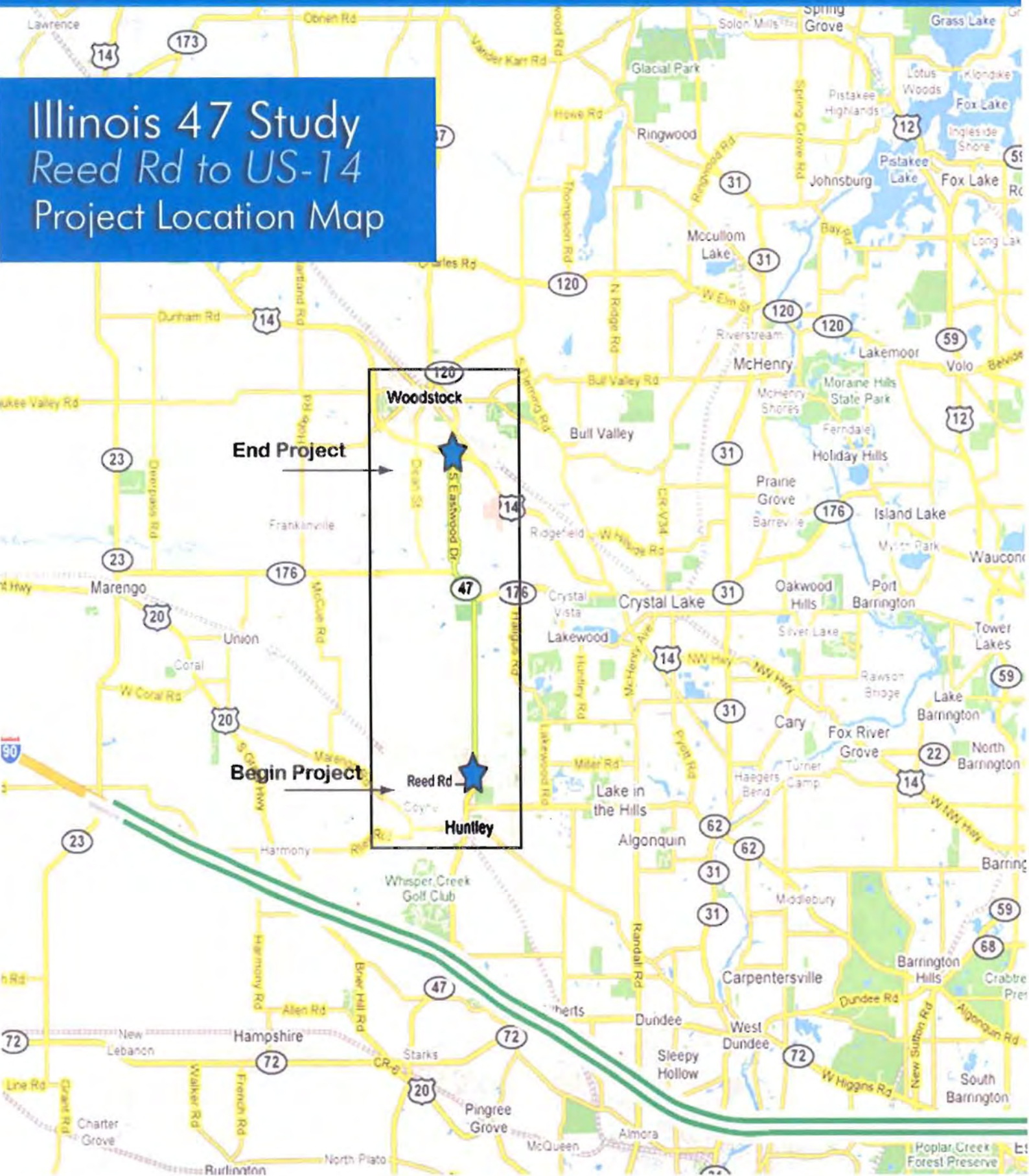
Ms. Terry Savko  
Illinois Department of Agriculture  
PO Box 19281  
Springfield, IL 62794-9281

Mr. Dan Heacok  
Illinois Environmental Protection Agency  
1021 N. Grand Avenue East  
PO Box 19276  
Springfield, IL 62794-9276

Ms. Anne Haaker  
Illinois Historic Preservation Agency  
1 Old State Capitol Plaza  
Springfield, IL 62701-1512



# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
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February 8, 2011

Refer To: HPER-IL

Mr. Dan Heacok  
Illinois Environmental Protection Agency  
1021 N. Grand Avenue East  
PO Box 19276  
Springfield, IL 62794-9276

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Mr. Heacok:

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Sincerely,

Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

Ms. Anne Haaker  
Illinois Historic Preservation Agency  
1 Old State Capitol Plaza  
Springfield, IL 62701-1512

Mr. Steve Hamer  
Illinois Department of Natural Resources  
1 Natural Resources Way  
Springfield, IL 62702-1271

Ms. Terry Savko  
Illinois Department of Agriculture  
PO Box 19281  
Springfield, IL 62794-9281

ecc: Jon-Paul Kohler, Scott McGuire, Mike Hine, Robin Helmerichs, JD Stevenson, Jan Piland,





# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Illinois Division**

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February 8, 2011

Refer To: HPER-IL

Ms. Anne Haaker  
Illinois Historic Preservation Agency  
1 Old State Capitol Plaza  
Springfield, IL 62701-1512

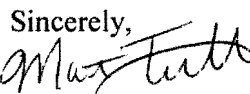
Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Ms. Haaker:

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Sincerely,  


Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

Mr. Steve Hamer  
Illinois Department of Natural Resources  
1 Natural Resources Way  
Springfield, IL 62702-1271

Ms. Terry Savko  
Illinois Department of Agriculture  
PO Box 19281  
Springfield, IL 62794-9281

Mr. Dan Heacok  
Illinois Environmental Protection Agency  
1021 N. Grand Avenue East  
PO Box 19276  
Springfield, IL 62794-9276

ecc: Jon-Paul Kohler, Scott McGuire, Mike Hine, Robin Helmerichs, JD Stevenson, Jan Piland,



# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
of Transportation

**Federal Highway  
Administration**

**Illinois Division**

February 8, 2011

3250 Executive Park Dr.  
Springfield, IL 62703  
(217) 492-4640  
[www.fhwa.dot.gov/ildiv/index.htm](http://www.fhwa.dot.gov/ildiv/index.htm)

Refer To: HPER-IL

Mr. Soren Hall  
U.S. Army Corps of Engineers – Chicago District  
111 North Canal Street, Suite 600  
Chicago, IL 60606-7206

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Mr. Hall:

The Federal Highway Administration (FHWA), in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment (EA) for the proposed improvement of IL Route 47 from Reed Road to U.S. 14 in McHenry County, Illinois. The FHWA and IDOT will develop the project in accordance with the Illinois NEPA-404 merger process because the project will likely require an individual Section 404 permit.

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Sincerely,

Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

Mr. Shawn Cirton  
U.S. Fish and Wildlife Service  
Ecological Services Field Office  
1250 S. Grove Ave, Suite 103  
Barrington, IL 60010-2668

Mr. Kenneth Westlake  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Mailcode (E-19J)  
Chicago, IL 60604-3590



# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

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3250 Executive Park Dr.  
Springfield, IL 62703  
(217) 492-4640  
[www.fhwa.dot.gov/ildiv/index.htm](http://www.fhwa.dot.gov/ildiv/index.htm)

February 8, 2011

Refer To: HPER-IL

Mr. Kenneth Westlake  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Mailcode (E-19J)  
Chicago, IL 60604-3590

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Mr. Westlake:

The Federal Highway Administration (FHWA), in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment (EA) for the proposed improvement of IL Route 47 from Reed Road to U.S. 14 in McHenry County, Illinois. The FHWA and IDOT will develop the project in accordance with the Illinois NEPA-404 merger process because the project will likely require an individual Section 404 permit.

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Sincerely,

Matt Fuller

Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT





Identical letters were sent to:

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U.S. Fish and Wildlife Service  
Ecological Services Field Office  
1250 S. Grove Ave, Suite 103  
Barrington, IL 60010-2668

Mr. Soren Hall  
U.S. Army Corps of Engineers – Chicago District  
111 North Canal Street, Suite 600  
Chicago, IL 60606-7206



# Illinois 47 Study Reed Rd to US-14 Project Location Map





U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Illinois Division**

3250 Executive Park Dr.  
Springfield, IL 62703  
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[www.fhwa.dot.gov/ildiv/index.htm](http://www.fhwa.dot.gov/ildiv/index.htm)

February 8, 2011

Refer To: HPER-IL

Mr. Shawn Cirton  
U.S. Fish and Wildlife Service  
Ecological Services Field Office  
1250 S. Grove Ave, Suite 103  
Barrington, IL 60010-2668

Subject: Environmental Assessment- Proposed Improvement of IL Route 47

Dear Mr. Cirton:

The Federal Highway Administration (FHWA), in cooperation with the Illinois Department of Transportation (IDOT), is preparing an Environmental Assessment (EA) for the proposed improvement of IL Route 47 from Reed Road to U.S. 14 in McHenry County, Illinois. The FHWA and IDOT will develop the project in accordance with the Illinois NEPA-404 merger process because the project will likely require an individual Section 404 permit.

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Sincerely,

Matt Fuller  
Environmental Programs Engineer

For: Norman R. Stoner, P.E.  
Division Administrator

Enclosure

cc: Mr. Scott Stitt, Bureau of Design and Environment, IDOT  
Ms. Diane O'Keefe, District 1, IDOT



Identical letters were sent to:

Mr. Kenneth Westlake  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson Boulevard  
Mailcode (E-19J)  
Chicago, IL 60604-3590

Mr. Soren Hall  
U.S. Army Corps of Engineers – Chicago District  
111 North Canal Street, Suite 600  
Chicago, IL 60606-7206



# Illinois 47 Study Reed Rd to US-14 Project Location Map





# Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271  
<http://dnr.state.il.us>

Pat Quinn, Governor  
Marc Miller, Director

November 29, 2010

Susan D. Hargrove  
Illinois Department of Transportation-BDE  
2300 South Dirksen Parkway  
Room 330  
Springfield, IL 62764

**Re: FAP 326 (IL 47), P-91-101-07, seq. 14677A, Add. A**  
**Project Number(s): 1105223 [14677A, 0902656 for original project in 2008]**  
**County: McHenry**

Dear Applicant:

This letter is in reference to the project you recently submitted for consultation. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, you must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Steve Hamer  
Division of Ecosystems and Environment  
217-785-5500

*Applicant:* Illinois Department of Transportation-BDE  
*Contact:* Susan D. Hargrove  
*IDNR Project #:* 1105223  
*Alternate #:* 14677A,  
0902656 for  
original project  
in 2008  
*Address:* 2300 South Dirksen Parkway  
Springfield, IL 62764  
*Date:* 11/29/2010  
*Project:* FAP 326 (IL 47), P-91-101-07, seq. 14677A, Add. A  
*Address:* n/a, Huntley, Woodstock

*Description:* Add. A for extending proj length at various cross rds & alignment shift to avoid homes. Unknown new ROW/tree removal. Instream work Kish R. Prior no instream construction work commitment 4/1-6/15 for IA darter in 2 Kish R locations apply to Add. A. New ROW at southernmost IA darter location.

### Natural Resource Review Results

#### Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Hum Railroad Prairie East INAI Site  
Kishwaukee Fen INAI Site  
Pleasant Valley INAI Site  
Woodstock Marsh INAI Site  
Kishwaukee Fen Nature Preserve  
Blanding'S Turtle (*Emydoidea blandingii*)  
Blanding'S Turtle (*Emydoidea blandingii*)  
Iowa Darter (*Etheostoma exile*)  
Iowa Darter (*Etheostoma exile*)  
Iowa Darter (*Etheostoma exile*)  
Iowa Darter (*Etheostoma exile*)  
Least Bittern (*Ixobrychus exilis*)  
Swainson'S Hawk (*Buteo swainsoni*)  
Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*)

**An IDNR staff member will evaluate this information and contact you within 30 days to request additional information or to terminate consultation if adverse effects are unlikely.**

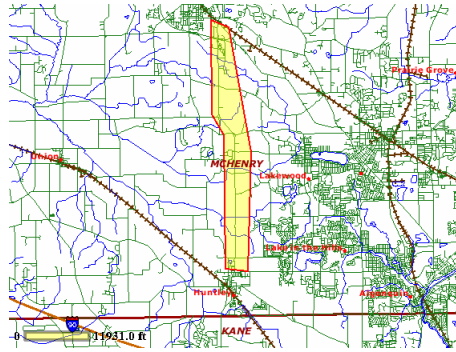
**Location**

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:

- 43N, 7E, 3                    43N, 7E, 4
- 43N, 7E, 9                    43N, 7E, 10
- 43N, 7E, 15                    43N, 7E, 16
- 43N, 7E, 21                    43N, 7E, 28
- 44N, 7E, 8                    44N, 7E, 9
- 44N, 7E, 16                    44N, 7E, 17
- 44N, 7E, 20                    44N, 7E, 21
- 44N, 7E, 28                    44N, 7E, 29
- 44N, 7E, 32                    44N, 7E, 33
- 44N, 7E, 34



**IL Department of Natural Resources Contact**  
 Steve Hamer  
 217-785-5500  
 Division of Ecosystems & Environment

**Local or State Government Jurisdiction**  
 IL Department of Transportation  
 Susan Dees Hargrove  
 2300 South Dirksen Parkway  
 Room 330  
 Springfield, Illinois 62764

**Disclaimer**

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.
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# Illinois Department of Transportation

## Memorandum

---

To: Diane O'Keefe                      Attn: Pets Harnet  
From: Scott E. Stitt                    By: J. A. Walthall  
Subject: Cultural Resource Clearance  
Date: November 24, 2010

---

**McHenry County**  
FAP 326, IL 47  
Job. P-91-101-07  
Seq. 14677A

Attached is a copy of the "Environmental Survey Request Form" submitted for the above project. It is the opinion of our professional staff that no Cultural Resource survey is required for this project. This determination follows the stipulations of the joint agreement for the Exclusion of Classes of "No Effect" from Illinois SHPO Coordination ratified by FHWA, the SHPO, and IDOT on December 11, 2006. The signed request form attached is your evidence of coordination.

A handwritten signature in cursive script, appearing to read "J. A. Walthall".

Attachment

JAW:km





# Illinois Department of Transportation

## Memorandum

To: Diane M. O'Keefe                      Attn: Peter E. Hamet  
From: Scott E. Stitt                      By: Thomas C. Brooks  
Subject: Biological Resources Review  
Date: July 23, 2010

*Thomas C. Brooks*

FAP 326 (IL 47) (South Eastwood Drive)  
Job No. P-91-101-07 (Seq. 14677)  
From Reed Road to U.S. 14  
Municipalities of Huntley and Woodstock  
McHenry County

### Introduction

The proposed project involves reconstruction of 7.5 miles of IL 47, with the anticipation of adding lanes from the existing two-lane section to four 12' lanes with median, shoulders, and open drainage. There will be structure replacement at the Kishwaukee River. An unknown acreage of additional right of way will be required.

The proposed project is being processed as an Environmental Assessment. Based on the information your office has provided regarding the scope of work, a discussion of relevant biological resources is provided. This project has been discussed with the resource agencies as part of the NEPA/404 Merger Process, most recently on February 18, 2010.

### Endangered and Threatened Species

The U.S. Fish and Wildlife Service Region 3 list of threatened or endangered species in Illinois (<http://www.fws.gov/midwest/endangered/lists/illinois-cty.html>) lists the Indiana bat (*Myotis sodalis*) as occurring statewide and Eastern prairie fringed orchid (*Platanthera leucophaea*) and prairie bush clover (*Lespedeza leptostachya*) as occurring in McHenry County. Because there are no mesic to wet prairies in the project area, or high quality emergent wetlands (i.e., with FQI more than 20 or mean C 3.5 or higher), there is no suitable habitat for the Eastern prairie fringed orchid. Because there are no dry to mesic prairies with gravelly soil in the project area, there is no suitable habitat for the prairie bush clover.

Appendix 2 of the Indiana bat (*Myotis sodalis*) Draft Recovery Plan: First Revision lists no range-wide distribution records for *Myotis sodalis* in McHenry County. The Blue-Ribbon study performed in conjunction with IDOT, USFWS, and INHS did not capture any Indiana bats in northeastern Illinois.

There is no suitable habitat for any federal threatened and endangered species in the project area. We have determined that there will be no effect to any of the federally listed

species for McHenry County as a result of this project. Please keep this memorandum in your project files as it documents and concludes consultation with the USFWS.

The Illinois Endangered Species Protection Board lists a number of species as occurring in McHenry and adjacent counties. This office has concluded that there is no suitable habitat for any of these species in the project area, except as discussed below. The IDNR Natural Heritage Database has records of several listed species and natural areas near the project corridor, but none are close enough to be adversely impacted except for the Iowa darter. Due to a 2003 record of the state threatened Iowa darter (*Etheostoma exile*) occurring in the Kishwaukee River, Steve Hamer requested fish surveys (IDNR EcoCAT Response letter dated September 29, 2008).

#### Iowa Darter

The Illinois Natural History Survey conducted fish surveys in the project area on July 15, 2009 (report attached). They found thirteen Iowa darters at Site 1 and 6 Iowa darters at Site 2, both in the Kishwaukee River crossing the project area. No Iowa darters were found at Site 3, an unnamed tributary of the South Branch of the Kishwaukee River. Iowa darters spawn from late April to mid-June in clear streams. In order to reduce siltation, and hence impacts to the Iowa darter, a commitment should be made that no instream work occur during construction at Sites 1 and 2 from April 25 through June 15 of any construction year. This information should be placed in the project plans or plan notes. If this construction date restriction is adhered to, this office concludes that no adverse impact shall occur to the Iowa darter as a result of the project.

#### Commitment

The following commitment shall be placed at the appropriate location in the final project plans or plan notes, and adhered to:

In order to avoid impacts to the state threatened Iowa darter (*Etheostoma exile*), no instream work shall be conducted from April 25 through June 15 of any construction year at the following locations:

1. Site 1: Kishwaukee River at IL Route 47, approximately 0.6 miles south of U.S. Route 14.
2. Site 2: Kishwaukee River at IL Route 47, approximately 5 miles south of U.S. Route 14.

#### Wetlands

The National Wetland Inventory Map (Huntley and Woodstock Quadrangles) depicts wetlands in the project area. The project was sent for field survey by the Illinois Natural History Survey. Results were transmitted to District One via Sharepoint. Wetland definitions and aerials depicting the wetland sites were emailed June 1, 2010, to IDNR (Mr. Steve Hamer and Mr. Patrick Malone), USFWS (Mr. Shawn Cirton), and USACOE (Ms. Kathy Chernich) for their information.

Wetland Sites 2-4, 6-21, 25, 29, 30, 32-35, 39, 40, 42, 43, 45, 46, 54, and 56-59 were considered jurisdictional by the Illinois Natural History Survey. Wetland Sites 5, 23, 27, 28, 44, 47-49, 52, 53, and 55 were considered isolated by the Illinois Natural History Survey. Wetland Sites 3, 27, 32, 33, 38, 41, 42, 45, 46, 56, 57, and 59 are ADID sites.

Please  
note attached  
email -  
date  
restriction  
is April  
1 through  
June 15.  
R

D. O'Keefe  
July 23, 2010  
Page 3 of 3

FQIs range from 0.5 to 17.1; mean Cs range from 0.2 to 3.4. If Wetland Site 27 is impacted, IEPA Case Specific Water Quality Certification may be necessary due to presence of river birch (*Betula nigra*); however, this site is considered isolated.

In accordance with Section V of the IDOT Wetlands Action Plan, wetland impacts are to be avoided, minimized and then mitigated.

For unavoidable impacts, it is now requested that District One fill out the Wetland Impact Evaluation Form (WIE Tab in the Wetland Form of the Project Monitoring Database) and submit the form to this office.

#### Streams

The project crosses the Kishwaukee River, which is listed as a Class I stream under the Memorandum of Understanding between IDNR and IDOT. The IDNR Biological Stream Rating (BSR) indicates that this portion of the Kishwaukee River is a Biologically Significant Stream and is rated C for diversity.

Instream work involves that which is necessary to remove and replace the existing structure over the Kishwaukee River.

Because of the construction activity in and around the stream, short-term sedimentation will occur. In accordance with Chapter 59, Section 8 of the BDE Manual, an erosion and sediment control plan will be designed incorporating measures to minimize sedimentation effects.

#### Tree Removal

Project construction will involve the removal of an unknown quantity of trees. Trees should be replaced in accordance with Departmental Policy D&E-18.

#### Coordination

By copy of this memorandum, IDNR and USFWS are being notified of this project. Their mitigation recommendations and our recommendations for further coordination will be forwarded to your office upon receipt of a response.

#### Conclusion

Project development may proceed with no additional Biological Resources Review unless (a) the scope of work is changed or otherwise different from that described to us, (b) IDNR or USFWS response requires further coordination, or (c) otherwise notified by this office.

#### Attachments

cc: Steve Hamer (IDNR)  
Janice Engle (USFWS)

SED

**Ruiz, Vanessa V**

---

**From:** Hamer, Steve  
**Sent:** Wednesday, August 04, 2010 2:16 PM  
**To:** Ruiz, Vanessa V; Dees, Susan E  
**Cc:** Mead, Sam M  
**Subject:** RE: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Consultation is closed. Thanks

Steve Hamer  
Division of Ecosystems and Environment  
One Natural Resources Way  
Springfield, Illinois 62702-1271  
Phone: 217-785-4862  
Fax: 217-524-4177

---

**From:** Ruiz, Vanessa V  
**Sent:** Wednesday, August 04, 2010 2:11 PM  
**To:** Dees, Susan E  
**Cc:** Hamer, Steve; Mead, Sam M  
**Subject:** FW: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Okay, we are good to go with the commitment of no in-stream work as indicated below.

---

**From:** Smith, Brian J. [mailto:brian.smith@aecom.com]  
**Sent:** Wednesday, August 04, 2010 2:08 PM  
**To:** Mead, Sam M  
**Cc:** Ruiz, Vanessa V; Lewis, Cary D; Havel, Joe; Morse, Marnell M  
**Subject:** RE: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Yes. These are standard seasonal restrictions for in-stream work. The project reports will indicate restrictions for no in-stream work from April 1 through June 15 of any construction year to avoid the spawning of the Iowa darter.

---

**From:** Morse, Marnell M [mailto:Marnell.Morse@illinois.gov]  
**Sent:** Wednesday, August 04, 2010 8:47 AM  
**To:** Havel, Joe; Smith, Brian J.  
**Cc:** Ruiz, Vanessa V; Mead, Sam M; Lewis, Cary D  
**Subject:** RE: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Please reply to the below question to Sam Mead ASAP with a cc to all above.

If you agree make sure it is documented in the CDR and environmental documents.

---

**From:** Mead, Sam M  
**Sent:** Tuesday, August 03, 2010 12:10 PM  
**To:** Morse, Marnell M; Lewis, Cary D

**Cc:** Ruiz, Vanessa V; Dees, Susan E  
**Subject:** FW: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Please review the e-mail below from IDNR and provide your concurrence ASAP so that we can close this issue. Please note that this will require an environmental commitment in the CDR and environmental document. Otherwise a lengthy ITA will be necessary.

*Sam Mead*

Environmental Unit Head

District One/Region One

847/705-4101

847/705-4159 (fax)

[sam.mead@illinois.gov](mailto:sam.mead@illinois.gov)

---

**From:** Dees, Susan E  
**Sent:** Tuesday, August 03, 2010 11:15 AM  
**To:** Ruiz, Vanessa V; Mead, Sam M  
**Cc:** Hamer, Steve  
**Subject:** FW: FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Dear Sam and Vanessa,

If this date change is acceptable to District 1, please email Steve Hamer back stating such. Please cc me.

Thanks,

Susan E. Dees  
Biological Resources Specialist  
Bureau of Design and Environment  
Illinois Department of Transportation  
2300 South Dirksen Parkway, Room 330  
Springfield, Illinois 62764  
217/785-0150  
Fax 217/524-9356  
[Susan.Dees@illinois.gov](mailto:Susan.Dees@illinois.gov)

---

**From:** Hamer, Steve  
**Sent:** Monday, August 02, 2010 2:37 PM  
**To:** Dees, Susan E  
**Subject:** FAP 326 (IL 47) Job P-91-101-07 (Seq. 14677)

Official response for above project:

I have received the BRR for the above reference project and have one comment. The dates for no instream work should be April 1 through June 15 of any construction year to avoid the spawning of the Iowa darter. If these dates are



implemented and put into the Commitment notes, consultation will be closed upon receipt of an email stating acceptance of these dates.

Steve Hamer

Division of Ecosystems and Environment

One Natural Resources Way

Springfield, Illinois 62702-1271

Phone: 217-785-4862

Fax: 217-524-4177



# Illinois Department of Transportation

## Memorandum

---

To: Diane O'Keefe                      Attn: Pete Harmet  
From: Charles Ingersoll              By: J. A. Waltball  
Subject: Cultural Resource Concurrence  
Date: November 18, 2009

---

McHenry County  
FAP 326, IL 147  
Job No. P-91-101-07  
Seq. #14677

Attached is a letter of concurrence from the State Historic Preservation Officer indicating that the proposed project referenced above will have no effect on significant cultural resources.

This completes the necessary coordination relative to evaluating the impact of this project on significant cultural resources.

Attachment

JAW:km

A handwritten signature in cursive script, appearing to read "JAWaltball".



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

October 8, 2009

McHenry County  
FAP 326, IL 147  
Kishwaukee River  
Project: P-91-101-07

IDOT Seq# 14677  
ITARP# 08177

## FEDERAL 106 PROJECT

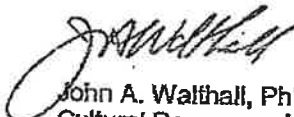
Ms. Anne Haaker  
Deputy State Historic Preservation Officer  
Illinois Historic Preservation Agency  
Springfield, Illinois 62701

Dear Ms. Haaker:

Enclosed are two copies of an Archaeological Report and Phase I documentation completed by University of Illinois personnel concerning historical and archaeological properties and sites potentially to be impacted by the 523 acre project referenced above. Four archaeological sites, 11-MH-276, 440, 497-98, were recorded. These sites consist of scatters of late 19<sup>th</sup> -20<sup>th</sup> century cultural materials that do not meet the criteria for listing on the National Register.

In accordance with the established procedure for coordination of Illinois Department of Transportation projects, we request the concurrence of the State Historic Preservation Officer in our determination that no sites subject to protection under Section 106 of the National Historic Preservation Act of 1966, as amended, will be affected by this proposed project.

Very truly yours,

  
John A. Walfhall, PhD  
Cultural Resources Unit

# CONCUR

By: Jane E. Hudson  
Deputy State Historic Preservation Officer

Date: 11.17.09

*Applicant:* Illinois Department of Transportation-BDE  
*Contact:* Susan Dees  
*Address:* 2300 South Dirksen Parkway  
Springfield, IL 62764

*IDNR Project #:* 0902656  
*Alternate #:* 14677  
*Date:* 09/24/2008

*Project:* FAP 326 (IL 47), P-91-101-07, seq. 14677  
*Address:* n/a, Woodstock and south

*Description:* This may be a dupe request as I may have timed out 1st time. Reconstruction IL 47 from Reed Rd to US 14, going from 2 to 4 lanes & potential realign IL 176; new bridge over Kishwaukee R. Map may show larger area than actual due to EcoCAT's limitations. WIRT: 2003 IA darter in Kish; 1994 Swainson's hawk sec. 9; Woodstock Marsh INAI & 1998 YHBB N end sec. 17.

### Natural Resource Review Results

#### Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Hum Railroad Prairie East INAI Site  
Pleasant Valley INAI Site  
Woodstock Marsh INAI Site  
Blanding'S Turtle (*Emydoidea blandingii*)  
Blanding'S Turtle (*Emydoidea blandingii*)  
Iowa Darter (*Etheostoma exile*)  
Iowa Darter (*Etheostoma exile*)  
Least Bittern (*Ixobrychus exilis*)  
Sandhill Crane (*Grus canadensis*)  
Slippershell (*Alasmidonta viridis*)  
Swainson'S Hawk (*Buteo swainsoni*)  
Yellow-Headed Blackbird (*Xanthocephalus xanthocephalus*)

**An IDNR staff member will evaluate this information and contact you within 30 days to request additional information or to terminate consultation if adverse effects are unlikely.**

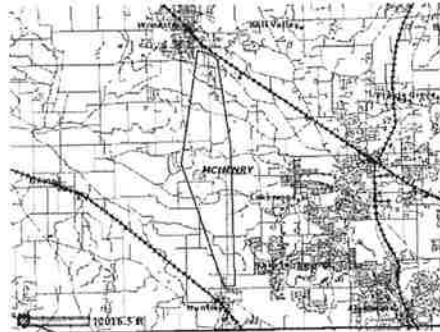
**Location**

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:

- |             |             |
|-------------|-------------|
| 43N, 7E, 4  | 43N, 7E, 5  |
| 43N, 7E, 6  | 43N, 7E, 8  |
| 43N, 7E, 9  | 43N, 7E, 16 |
| 43N, 7E, 17 | 43N, 7E, 20 |
| 43N, 7E, 21 | 43N, 7E, 28 |
| 44N, 7E, 8  | 44N, 7E, 9  |
| 44N, 7E, 16 | 44N, 7E, 17 |
| 44N, 7E, 20 | 44N, 7E, 21 |
| 44N, 7E, 28 | 44N, 7E, 29 |
| 44N, 7E, 31 | 44N, 7E, 32 |
| 44N, 7E, 33 |             |



**IL Department of Natural Resources Contact**  
Steve Hamer  
217-785-5500  
Division of Ecosystems & Environment

**Local or State Government Jurisdiction**  
Illinois Department of Transportation  
Susan Dees  
2300 South Dirksen Parkway  
Room 330  
Springfield, Illinois 62764

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**Appendix B**  
**Farmland Conversion Impact Rating**

United States Department of Agriculture



Natural Resources Conservation Service  
2118 West Park Court  
Champaign, IL 61821  
Phone: 217/353-6600  
Fax: 217/353-6676

---

November 20, 2013

Steve Chard, Acting Bureau Chief  
Attn: Teresa Savko  
IDA, Bureau of Land & Water Resources  
State Fairgrounds, P.O. Box 19281  
Springfield, IL 62794-9281

Re: Illinois 47  
McHenry County, Illinois  
Reed Road to US 14

Dear Mr. Chard:

Enclosed is Form AD-1006 for the above project. If you have questions, please call me.

Sincerely,

A handwritten signature in cursive script that reads "Ronald D. Collman".

RONALD D. COLLMAN  
State Soil Scientist

Enclosures

cc: (w/o enclosures)

Don McCallon, ASTC A4, USDA-NRCS, 3605 N IL Route 47, Suite C, Morris, Illinois 60450 A3  
Lewis Nichols, District Conservationist, USDA-NRCS, 1648 S. Eastwood Drive, Woodstock,  
Illinois 60098 A3

John A. Baczek, P.E., Project & Environmental Studies Section Chief, Division of Highways,  
Region One, District One, 201 West Center Court, Schaumburg, Illinois 60196-1096

Tim Prescott, Resource Inventory Specialist, USDA-NRCS, 2118 W. Park Court, Champaign,  
Illinois 61821

The Natural Resources Conservation Service provides leadership in a partnership effort to help people  
conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer



U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request 8/20/13			
Name Of Project IL Route 47, Reed Road to U.S. 14		Federal Agency Involved FHWA			
Proposed Land Use Roadway widening		County And State McHenry County, IL			
<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS 10/19/13			
Does the site contain prime, unique, statewide or local important farmland? <i>(If no, the FPPA does not apply – do not complete additional parts of this form).</i>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated N/A	Average Farm Size 372
Major Crop(s) Corn, soybeans, wheat, hay	Farmable Land In Govt. Jurisdiction Acres: 29,633,500 % 97	Amount Of Farmland As Defined in FPPA Acres: 27,695,900 % 91			
Name Of Land Evaluation System Used Illinois	Name Of Local Site Assessment System Statewide	Date Land Evaluation Returned By NRCS 11/15/13			
<b>PART III (To be completed by Federal Agency)</b>		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		91.6			
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		91.6	0.0	0.0	0.0
<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>					
A. Total Acres Prime And Unique Farmland		79.8			
B. Total Acres Statewide And Local Important Farmland		8.9			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		0.0			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		50.7			
<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b> 150 Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		118	0	0	0
<b>PART VI (To be completed by Federal Agency)</b> Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))		Maximum Points			
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
<b>TOTAL SITE ASSESSMENT POINTS</b>		150*	180	0	0
<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)		150*	180	118	0
Total Site Assessment (From Part VI above or a local site assessment)		150*	180	44	0
<b>TOTAL POINTS (Total of above 2 lines)</b>		300*	360	162	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	

See the attached  
Illinois LESA Site Assessment  
CORRIDOR Factors

Reason For Selection:

\*\* When utilizing the Illinois State Site Assessment Corridor factors, 150 points are assigned to the Land Evaluation portion, and 150 points are assigned to the Site Assessment portion of the LESA System for a maximum score of 300 points.

**IL Route 47, Reed Road to US Route 14  
McHenry County, Illinois  
Federal Highway Administration Funds**

<b>PART VI-B Illinois Site Assessment <i>CORRIDOR</i> Factors</b>	<b>Maximum Points</b>	<b>Site A</b>
1. Amount of agricultural land required	30	12
2. Location of the proposed alignment	30	13
3. Acres of off-site agricultural land required for borrow materials	15	15
4. Acres of Prime and Important farmland required for mitigation	15	0
5. Creation of severed farm parcels	10	0
6. Creation of uneconomical remnants	10	0
7. Creation of landlocked parcels	10	0
8. Creation of adverse travel	10	1
9. Relocations of rural residences and farm buildings	10	1
10. Utilization of minimum design standards	10	2
<b>TOTAL SITE ASSESSMENT <i>CORRIDOR</i> POINTS</b>	<b>150</b>	<b>44</b>

**PART VII**

Relative Value of Farmland	150	118
Total Site Assessment <i>CORRIDOR</i> Factors	150	44
<b>TOTAL ILLINOIS LESA POINTS</b>	<b>300</b>	<b>162</b>

120613  
TS

\* *The Illinois LESA System applies the 225 point cutoff when evaluating state and federally funded projects. Site or Corridor alternatives receiving 175 or fewer points have a low rating for protection, and it is not necessary to evaluate additional alternatives. Those alternatives receiving 176 to 225 points are in the moderate range for protection. In most cases, alternatives exceeding the 225 point level should be retained for agricultural use, and an alternate site should be utilized for the intended project. Selecting the alternative with the lowest total points will usually protect the best farmland located in the most agriculturally viable areas. LESA also serves to maintain and promote the agricultural industry in Illinois.*

U.S. Department of Agriculture

# FARMLAND CONVERSION IMPACT RATING

<b>PART I</b> (To be completed by Federal Agency)	Date Of Land Evaluation Request 8/20/13
Name Of Project IL Route 47, Reed Road to U.S. 14	Federal Agency Involved FHWA
Proposed Land Use Roadway widening	County And State McHenry County, IL

<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS 10/19/13	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Major Crop(s) Corn, soybeans, wheat, hay		Farmable Land In Govt. Jurisdiction Acres: 29,633,500 % 97	Acres Irrigated N/A Average Farm Size 372
Name Of Land Evaluation System Used Illinois		Name Of Local Site Assessment System Statewide	Date Land Evaluation Returned By NRCS 11/15/13

<b>PART III</b> (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	39.7			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	39.7	0.0	0.0	0.0

<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	31.2			
B. Total Acres Statewide And Local Important Farmland	7.5			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.0			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	50.7			

<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	112	0	0	0
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<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
<b>TOTAL SITE ASSESSMENT POINTS</b>	160	0	0	0	0

<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	112	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	260	112	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>
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Reason For Selection:

\*\* When utilizing the Illinois State Site Assessment Corridor factors, 150 points are assigned to the Land Evaluation portion, and 150 points are assigned to the Site Assessment portion of the LESA System for a maximum score of 300 points.

## **Appendix C**

### **Air Quality COSIM Pre-Screen Modeling Results**

# COSIM 4.0 PRE-SCREEN MODELING RESULTS



06-09-13

07:59 AM

IL 47 at IL Route 176

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Performed by:	Walt Zyznieuski
Intersection Location:	Mc Henry County
Intersection Name:	IL 47 at IL 176
Highest Approach Volume:	1075 vph
Closest Receptor:	955 feet

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## Pass

Intersection PASSES Pre-Screen. COSIM analysis not required.  
Highest design-year approach volume on the busiest leg of the intersection  
is less than 5,000 vph or 62,500 ADT.

Please include the following statement in the project report or NEPA document:

**In accordance with the IDOT-IEPA Agreement on Microscale Air Quality Assessments for IDOT Sponsored Transportation Projects, this project is exempt from a project-level carbon monoxide air quality analysis because the highest design-year approach volume on the busiest leg of the intersection is less than 5,000 vph or 62,500 ADT.**

**Appendix D**  
**NEPA/404 Merger Process**  
**and FHWA Meeting Minutes**

## **NEPA/404 Concurrence Summary**

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The IL 47 project from Reed Road to US 14 followed the NEPA/404 merger process to coordinate the project with the environmental resource and regulatory agencies. Concurrence from the environmental resource and regulatory agencies were received on the following dates:

- September 9, 2010 – NEPA/404 Concurrence on Purpose and Need
- December 10, 2010 & April 15, 2011 – NEPA/404 Concurrence on Alternatives to be Carried Forward
- June 15, 2012 – NEPA/404 Concurrence on Preferred Alternative

**IDOT District 1, McHenry County  
IL 47 (Reed Road to US 14)  
Environmental Assessment  
Information, BMP Presentation**

**DECISIONS:**

No decisions requested or made.

**NEXT STEPS:**

Detailed design elements will be forwarded during the design phase of the project.

**DISCUSSION:**

The purpose of the meeting was to present proposed conceptual BMPs for the Preferred Alternative for the IL 47 Reed Road to US 14 Study.

AECOM presented a summary of the project and the status. The project study proposes to widen eight miles of IL Route 47 from Reed Road in Huntley to U.S. 14 in Woodstock to two lanes in each direction. A draft Environmental Assessment has been prepared and is undergoing review by the FHWA and BDE. The project has gone through the NEPA/404 merger process and has received concurrence at all levels through the Preferred Alternative.

As a follow up to the June 2012 NEPA/404 Merger Meeting, BMP locations have been proposed along the route. Typical concept drawings have been developed for the BMPs as bioswales. Handouts were distributed showing the proposed bioswale locations and concept typical drawings. The grass medians are too narrow to include bioswales, but they will be planted with a native mix. The medians will however, drain under the roadway to ditches then to the bioswales. Proposed bioswale locations were chosen based on proximity to sensitive resources such as wetlands and waterways as well as local topography and drainage patterns. Actual locations and appropriate type will be finalized and confirmed in the design phase.

**AGENCY QUESTIONS AND COMMENTS**

The USACE indicated they would be looking for a 1” runoff capture rate for the bioswales. This is going to be the standard of the federal guidelines during permitting. They requested the bioswales design element concepts be forwarded and a description of how the bioswales were designed. Since they are only concept plans now, the information used to develop the concepts will be provided and the details of the design elements will be forwarded during the design phase of the project.

The USFWS asked if there were any wildlife crossing specific to the Blanding’s turtle included in the project. IDOT will provide the Biological Resources Review detailing the locations of Threatened and Endangered species to Shawn Cirton and he will follow-up with the McHenry County Conservation District regarding the presence of the Blanding’s turtle in the project area.



The presentation of the meeting and a set of the drawings will be forwarded to Shawn Cirton electronically.

### **Agenda Item # 3**

IL 47 – Reed Road to US 14  
P-91-101-07  
McHenry County  
February 26, 2014

This is the 16<sup>th</sup> presentation of this project. The previous presentation was on June 12, 2013. The purpose of this meeting is to provide an update on the status of the project.

A project overview and update was presented. The project is approximately 8 miles in length along IL 47 from the Village of Huntley to the City of Woodstock. Four stakeholder workshops and two public meetings have been held. The fifth stakeholder workshop will be held on March 5, 2014. NEPA/404 concurrence has been obtained for the purpose and need, the alternatives to be carried forward, and the preferred alternative. The consultant submitted preliminary geometrics and received comments from IDOT, which have been addressed. The revised geometrics and hydraulic reports will be submitted to IDOT for review after the public hearing.

The draft combined design report was submitted to IDOT for review in January 2014. The environmental assessment (EA) was submitted to BDE and FHWA for review in January 2014. The biological clearance for the project is pending the review of the wetland impact evaluation forms.

FHWA and BDE stated that they have begun reviewing the EA. The comments on the EA are expected to be finished the week of March 3, 2014. FHWA anticipates a second round of comments on the EA will be necessary.

The public hearing was tentatively scheduled for mid-April 2014; however, if a second round of review/comments on the EA is necessary, the public hearing may need to be delayed.

Next Steps – Address IDOT comments on the draft combined design report, address BDE and FHWA comments on the EA and conduct stakeholder workshop and public hearing.

BDE and FHWA agreed with the project procedure as discussed above.

C. Lewis, K. Murphy, M. Morse - IDOT  
K. Mawhinney, B. Smith – AECOM

The presentation of the meeting and a set of the drawings will be forwarded to Shawn Cirton electronically.

## **Agenda Item # 8**

IL 47 – Reed Road to US 14  
P-91-101-07  
McHenry County  
June 12, 2013

### **Agenda Items:**

This is the 15<sup>th</sup> presentation of this project. The previous presentation was on July 11, 2012.

A project overview and update was presented. The Project is approximately 8 miles in length along IL 47 from the Village of Huntley to the City of Woodstock. 4 Stakeholder Workshops and 2 Public Meetings have been held. NEPA/404 concurrence has been obtained for the Purpose and Need, the Alternatives To Be Carried Forward, and the Preferred Alternative. The consultant submitted Preliminary Geometrics and received comments from IDOT.

In a continued effort to reduce impacts a curb and gutter has been added to the outside shoulder to reduce ROW needs. Revised typical sections for Rainsford Drive to Hercules Road (South Alternative) and Hercules Road to US Route 14 (North Alternative) were reviewed.

The South Preferred Alternative (Rainsford Road to Hercules Road) consist of two 12 foot lanes in each direction, 10 foot wide paved outside shoulders with a curb and gutter at the outside edge of shoulder, and a depressed median providing 30 feet of separation between the opposing edges of pavement. The depressed median includes 6 foot wide paved inside shoulders, cable guardrail, and a 2 foot wide flat bottom ditch. Pedestrian and bicyclists will be accommodated on a 10 foot wide shared-use path on one side of the roadway and a 5 foot wide sidewalk on the other side of the roadway. A 4 foot flat bottom ditch is proposed between the sidewalk/path and the right of way. The roadway centerline is shifted 27 feet to the east by way of a 38,200 foot radius reverse curve between Ackman Road and IL Route 176 (east leg) to minimizes the impact to the residential properties on the west side of IL Route 47 between Hawthorne Way and IL Route 176. From Rainsford Drive to Ackman Road and from IL 176 (east Leg) to Hercules Road the roadway remains on the existing centerline.

The North Preferred Alternative (Hercules Road to US 14) consist of two 12 foot lanes in each direction, separated by an 18 foot barrier median. Curb and gutter will be provided at both the median and outside edges of pavement. Pedestrians and bicyclists will be accommodated on 10 foot wide shared-use path on one side of the roadway and a 5 foot wide sidewalk on the other side of the roadway

A series of Municipal/Township Meetings have been held. In general all are supportive of the project and would like to see it built sooner than later. A summary of their concerns include:

- Village of Huntley – The Village is concerned about the Reed Road Intersection. The Village is concerned that the Reed Road lanes do not line

up across IL 47 and line of sight makes it hard to see lane markings traveling from west to east on Reed Road. Reed Road is a Village street which was constructed prior to IL 47. Approximately 150 feet of Reed Road was reconstructed when IL 47 was improved last year. IDOT will review crash history before deciding on a direction to proceed. A discussion of IL 47 between Reed Road and Rainsford was held. After some discussion it was decided that along IL 47 - Curb & gutter will be extended north from Reed Road to Rainsford, the same sidewalk treatment (7' at back of curb) south of Reed Road will be extended to Rainsford on the west side, the multi-use path will tie into the existing path on Rainsford where it parallels IL 47 to Reed Road.

- Village of Lake In The Hills – The Village was concerned about the alignment shift at Ackman Road, minor ROW widths, and wanted the Ackman Road extension to be highlighted in the report. All concerns will be addressed.
- Village of Lakewood – The Village is seeking approval to realign Pleasant Valley Road with the south IL 176 Intersection. The Village owns the property south of Pleasant Valley Road and west of IL 47. IDOT is discussing the realignment with Lakewood.
- City of Woodstock – The City does not approve of realigning Cobblestone Way. After some discussion it was decided to not realign Cobblestone and to add a left turn at Cobblestone, a left turn lane will not be provided at Dieckman.
- Dorr Township – no concerns.
- Grafton Township – meeting pending.

Next Steps – Address IDOT comments to Preliminary Geometrics; refine geometry and drainage; address appropriate BMPs; submit Draft Combined Design Report, EA, and LDS; as well as conduct Stakeholder Workshop and Public Hearing .

BDE and FHWA agreed with the project proceeding as indicated above.

C. Lewis, M. Morse - IDOT  
J. Havel, C. Nash – AECOM

### **Agenda Item # 3**

IL 47 (FAP 326) – Reed Road to US 14  
P-91-101-07  
McHenry County

**July 11, 2012**

Presentation - This is the 14<sup>th</sup> presentation of this project. The previous presentation was on February 8, 2012.

The purpose of the meeting was to provide a status of the project.

- Project Limits- Project is approximately 8 miles along IL 47 from Huntley to Woodstock.
- Public Involvement – Have held 4 Stakeholder Workshops and 2 Public Meetings.
- NEPA 404 Coordination – Have obtained concurrence on Purpose and Need, Alternatives, and the Preferred Alternative.

The description of the preferred alternative geometry was discussed. The preferred alternative will consist of two 12-foot lanes in each direction, 10-foot wide paved outside shoulders with curb and gutter at the outside edge of shoulder, and a depressed median providing 30-foot of separation between the opposing edges of pavement. The depressed median includes 6-foot wide paved inside shoulders and a 2-foot wide flat bottom ditch. Pedestrian and bicyclists will be accommodated on a 10-foot wide shared-use path on one side of the roadway and a 5-foot wide sidewalk on the other side of the roadway. The 30-foot median will still allow for dual left turns and also reduces wetland impacts. A cable guard rail will be provided in the median. The alignment will be shifted 27-foot from Ackman Road to IL Route 176 to avoid residential impacts.

The drainage plan will convey runoff to bioswales prior to entry into wetlands. An exhibit will be developed to show proposed locations of bioswales. These will not be designed however. The exhibit will have a caveat that the locations are potential and subject to change.

Next Steps include refining the geometry, drainage plan, appropriate BMPs, and further reduction of wetland impacts. A follow up meeting with the federal resource agencies will be set up by FHWA to review the latest plans prior to the holding of the Public Hearing.

BDE and FHWA agreed with the project proceeding as indicated above.

M. Morse - IDOT  
B. Smith – AECOM

**IDOT District 1, McHenry County  
IL 47 from Reed Road to US 14  
Environmental Assessment  
Concurrence – Preferred Alternative  
ESA – “No effect” determination**

**DECISIONS:**

Concurrence on the preferred alternative was given by IDNR, USFWS, USEPA, and USACE.

**NEXT STEPS:**

IDOT to provide meeting minutes to the agencies from the latest workshop, attendee list, comments, and responses.

Prior to EA approval, project team to meet with the agencies to discuss conceptual mitigation approaches to be included in the EA to be released to the public. Meeting to occur outside of normally scheduled NEPA-404 merger meetings.

Resource agencies would like to be notified/highlighted workshops that have special environmental emphasis so they can choose to participate.

**DISCUSSION:**

The purpose of the meeting was to present IDOT/FHWA's Preferred Alternative for the IL 47 Reed Road to US 14 Study, and to obtain concurrence from the participating agencies.

On May 7, 2012 FHWA distributed Chapter 3 Alternatives that summarized the Preferred Alternative. USACE provided some preliminary discussion comments during the interim and a revised Chapter 3 was distributed at the meeting.

**PREFERRED ALTERNATIVE**

A step-by-step presentation was provided that described how the proposed Preferred Alternative was selected.

**Rainsford Drive to Hercules Road (South Alternative)**

Five alternatives, including the No-Build, were developed for Section 2, Rainsford Road to Hercules Road. An impact evaluation was performed for each alternative. The Revised South Alternative 2 had the lowest environmental impacts and least displacements. Based on this evaluation Revised South Alternative 2 was recommended as the preferred alternative. The improvements consist of two 12 foot lanes in each direction, 10 foot wide paved outside shoulders with a curb and gutter at the outside edge of shoulder, and a depressed median providing 30 feet of separation between the opposing edges of pavement. Cable guardrail is provided in the median as a safety measure in areas where speed limit is greater than 45 mph. The depressed median includes 6 foot wide paved inside shoulders and a 2 foot wide flat bottom ditch. Pedestrian and bicyclists will be accommodated on a 10 foot wide shared-use path on one side of the roadway and a 5 foot wide sidewalk on the other side of the roadway. A 4 foot flat bottom ditch is proposed between the sidewalk/path and the right of way. The roadway centerline is shifted 27 feet to the east by way of a 38,200 foot radius reverse curve between Ackman Road and IL Route 176 (east leg) to minimize the impact to the residential properties on the west side of IL Route 47 between Hawthorne Way and IL Route 176. From Rainsford Drive to Ackman Road and from IL 176 (east Leg) to Hercules Road the roadway remains on the existing centerline.

**Revised South Alternative 2** meets the project Purpose and Need by addressing vehicular and pedestrian safety, enhancing traffic mobility and capacity, and facilitating planned economic growth. It is

recommended as the preferred alternative since it has the lowest wetland impacts and least number of displacements. Revised South Alternative 2 will be further refined to develop Best Management Practices (BMPs) to minimize impacts. BMPs which will be investigated include collecting and slowing runoff from the roadway, treatments at wetlands, and native plant usage to provide a filtering media for runoff.

#### **Hercules Road to US Route 14 (North Alternative)**

Three alternatives, including the No-Build, were developed for Section 3, Hercules Road to US Route 14. An impact evaluation was performed for each alternative. Both North Alternatives have similar impacts. Based on this evaluation North Alternative 2 was chosen as the preferred alternative. The improvements consist of two 12 foot lanes in each direction, separated by an 18 foot barrier median. Curb and gutter will be provided at both the median and outside edges of pavement. Pedestrians and bicyclists will be accommodated on 10 foot wide shared-use path on one side of the roadway and a 5 foot wide sidewalk on the other side of the roadway

**North Alternative 2** meets the project Purpose and Need by addressing vehicular and pedestrian safety, enhancing traffic mobility and capacity, and facilitating planned economic growth. It is recommended as the preferred alternatives since it had the lowest to businesses and the lowest impacts to wetlands. North Alternative 2 will be further refined to develop BMPs to minimize impacts. BMPs which will be investigated include collecting and slowing runoff from the roadway, treatments at the Kishwaukee Headwaters and other wetlands, and native plant usage to provide a filtering media for runoff.

#### **AGENCY QUESTIONS AND COMMENTS**

There was a question from USFWS and USACE regarding Stakeholder Workshop #4 "Environmental Workshop" and if the agencies could have a copy of the workshop summary and sign-in sheet. A copy of IDOT's response letter to KREP will also be provided.

The agencies agreed on the selection of the Preferred Alternative. However, as this is the last concurrence point, there was concern that the project will proceed without further developing BMPs. The next time the federal agencies would see documentation would be at the Section 404 permit submittal. FHWA pointed out the agencies have an opportunity for comment when the EA was circulated. It was proposed to have a follow-up meeting to allow for a final review and comment held prior to a Public Hearing.

#### **CONCURRENCE**

The USACE (Hall), USEPA (West), USFWS (Cirton), IDNR (Hamer) and FHWA (Fuller) gave concurrence on the Preferred Alternative as presented. FHWA will organize a follow-up meeting with the agencies to review progress on the Preferred Alternative and the process of addressing BMPs prior to the EA distribution.



## **Agenda Item # 11**

Illinois Route 47 (FAP 326) – Reed Road to US 14  
P-91-101-07  
McHenry County

**February 8, 2012**

This is the 13<sup>th</sup> presentation of this project. The previous presentation was on June 8, 2011.

AECOM provided a project overview and update. The project length is approximately 8 miles along IL 47 from Reed Road in Huntley to US 14 in Woodstock. 4 Stakeholder Workshops and 2 Public Meetings have been held. Concurrence on Purpose and Need has been received through NEPA/404 Merge Meetings. The current roadway is 1 lane in each direction with a rural cross section. Posted speed limit is 55 MPH except for the north 1 mile where the posted speed limit lowers to 40 MPH. The proposed improvements would be centered on the existing roadway, except from Ackman Road to IL 176 (approximately 3 miles) where the roadway is shifted east to avoid residences on the west side of IL 47. 4 typical section options were investigated to minimize impacts. The 4 options include:

- Option 1 – Rural 50 foot median with shoulders – It would provide 2 lanes in each direction separated by a 50 foot median. A sidewalk would be on one side of the roadway and a bicycle path would be on the other side. The inside lanes and inside shoulders would drain to the median. The outside lanes and outside shoulders would drain to a swale between the shoulder and a sidewalk/bicycle path. A ditch would be provided between the sidewalk/bicycle path and the ROW line.
- Option 2 – Rural 30 foot median with shoulders – This option is the same as Option 1 except the median is reduced to 30 feet.
- Option 3 – Rural 30 foot median with shoulders with curb and gutter at outside edge of shoulder – This option is the same as Option 2, the median is 30 feet wide with shoulders. However for the outside edge a curb and gutter is placed at the outside edge of shoulder and the swale is eliminated between the EOS and sidewalk/bicycle path. A ditch would be provided between the sidewalk/bicycle path and the ROW line.
- Option 4 – Urban 30 foot median. This option provides 2 lanes in each direction separated by a 30 foot median. Curb and gutter is provided at the median and outside edge. A sidewalk would be on one side of the roadway and a bicycle path would be on the other side. A ditch would be provided between the sidewalk/bicycle path and the ROW line.

A discussion was held in regard to the benefits of each Option. IDOT stated they will be proceeding with Option 3 as it had the lowest impacts and retained the safety aspects of the rural sections.

The next step is to continue development of the Preferred Alternative.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

## **Agenda Item # 8**

Illinois Route 47 (FAP 326) – Reed Road to US 14  
P-91-101-07  
McHenry County

**June 8, 2011**

This is the 12<sup>th</sup> presentation of this project. The previous presentation was on December 6, 2010.

AECOM provided a project update. This project has received concurrence for “Purpose and Need” and “Alternatives To Be Carried Forward” through the NEPA/404 merger process. An overview of the “Alternatives To Be Carried Forward” was given by AECOM. The project is split into 2 segments. The south segment is rural in nature and has a posted speed limit of 55 MPH. Two south alternatives have been developed. Both alternatives have 2 lanes in each direction separated by a 50 foot median (38 foot landscape, with 2-6 foot paved inside shoulders), 10 foot paved outside shoulders, a 10 foot multi-use path on one side, a 5 foot sidewalk on the other side, and open ditch drainage. Between Ackman Road and IL 176, South Alternative 2 shifts to the east to avoid residences while South Alternative 1 remains centered on the existing roadway. The north segment is urban in nature and has a posted speed limit of 40 MPH. Two north alternatives have been developed. Both alternatives have 2 lanes in each direction separated by a barrier median, curb and gutter, a 10 foot multi-use path on one side, a 5 foot sidewalk on the other side, and closed drainage system. North Alternative 1 has a 10 foot paved shoulder while North Alternative 2 does not.

A chart summarizing the Preliminary Impacts was reviewed. Both south alternatives have the same impact except South Alternative 1 displaces 8 residences while South Alternative 2 displaces only 1 residence. Both north alternatives have the same impact except North Alternative 1 impacts 2.7 acres of wetlands while North Alternative 2 impacts only 1.7 acres of wetlands.

There was a discussion of the preferred alternative. The alternatives have been presented to the public at Workshop #3 and Public Meeting #2. South Alternative 2 and North Alternative 2 were favored by the public. South Alternative 2 and North Alternative 2 have been identified as the Preferred Alternatives since they have lower impacts and are favored by the public. BDE and FHWA agreed with the selection of the Preferred Alternatives.

The next step is to start development of the Preferred Alternatives.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM



**DEPARTMENT OF THE ARMY**  
CHICAGO DISTRICT, CORPS OF ENGINEERS  
111 NORTH CANAL STREET  
CHICAGO, ILLINOIS 60606-7206

REPLY TO  
ATTENTION OF:

April 15, 2011

Technical Services Division  
Regulatory Branch  
LRC-2010-00267

SUBJECT: NEPA/404 Merger Process Concurrence for the Alternatives to be Carried Forward for Illinois Route 47, Reed Road to U.S. Route 14, Huntley, McHenry County, Illinois

Matthew Fuller  
Federal Highway Administration  
3250 Executive Park Drive  
Springfield, Illinois 62703

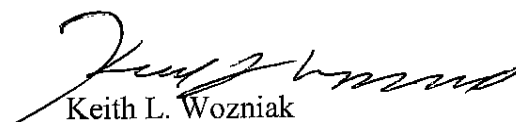
Dear Mr. Fuller:

This letter is in response to your request that the Department of the Army (Corps) review the Illinois Route 47, Reed Road to U.S. Route 14, and provide concurrence with the Alternatives to be Carried Forward for the proposed project. Various Federal and state agencies are providing a concurrent review of the project under the terms and conditions as set forth in the "Statewide Implementation Agreement National Environmental Policy Act And Clean Water Act Section 404 Concurrent NEPA/404 Processes For Transportation Projects in Illinois".

Following a thorough review of the revised project documents received March 10, 2011, the Corps concurs that all applicable information has been received as it pertains to the Concurrence Point for Alternatives to be Carried Forward. Concurrence has now been reached for Purpose and Need and Alternatives to be Carried Forward. All documentation to date is sufficient for this stage and the project may now proceed to the next stage of project development.

If you have any questions, please contact Mr. Soren Hall of my staff by telephone at 312-846-5532, or email at [Soren.G.Hall@usace.army.mil](mailto:Soren.G.Hall@usace.army.mil).

Sincerely,

  
Keith L. Wozniak  
Chief, West Section  
Regulatory Branch

Copy Furnished:  
U.S. Environmental Protection Agency (Norm West)  
U.S. Fish and Wildlife Service (Shawn Cirton)  
Illinois Department of Natural Resources (Steve Hamer)

**RECEIVED**  
APR 22 2011  
ILLINOIS  
DIVISION

## **NEPA/404 Merger Meeting Summary December 17, 2010**

<p><b>IDOT District 1, McHenry County IL 47 from Reed Road to US 14 Environmental Assessment Alternates to BE carried Forward</b></p>
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The purpose of the meeting, held at the USACE Chicago Office, was to present AECM/IDOT/FHWA's alternates to be carried forward for the IL 47 - Reed Road to US 14 Study, and to obtain concurrence from the participating agencies for the presented alternatives.

The Purpose and Need was presented at the NEPA/404 meetings on February 18, 2010, June 11, 2010, and September 9, 2010. Concurrence was received at the September 9, 2010 NEPA/404 Merge Meeting.

### **ALTERNATES TO BE CARRIED FORWARD**

AECOM presented a power point presentation to provide an overview of the project and to present the alternates to be carried forward.

AECOM started by reviewing the limits of the project and the logical termini. The project extends approximately 8 miles along IL 47 from Reed Road to US 14. It connects the Village of Huntley with the City of Woodstock, both having populations of approximately 25,000 each. The project connects a 4 lane section being built south of Reed Road, which will complete a 4 lane section to I-90, to an existing 4 lane section at US 14.

AECOM reviewed existing conditions and land use along the project. The future land use along IL 47 is over 50% commercial. IL 47 serves to connect existing and future commercial centers along the corridor. Therefore, improving IL 47 would be consistent with land use plans for the area. A comparison was made to Dean Street which has a future land use of 84.8% residential and no commercial or industrial.

Safety, one of the needs for improvement, was discussed. Approximately half of the crashes which occur within the project limits occur at the IL 176 split intersection, while the other half occur along the length of IL 47. Crashes along the length of IL 47 are due to the lack of capacity and lack of adequate turn lanes. The project would address these by adding through lanes and protected turn lanes as determined during alternative development.

The need for improvements based on lack of capacity and mobility was discussed. AECOM presented an exhibit summarizing traffic volumes along IL 47. Based on 2007 traffic volumes, the route carries between 14,300 and 22,300 vehicles per day, averaging 17,100 vehicles per day over the length of the project. In 2030 the projected traffic levels are between 19,000 and 33,000 vehicles per day, averaging 25,400 vehicles per day over the length of the project. A two lane roadway can safely and efficiently accommodate between 14,000 and 18,000 vehicles per day. 2007 traffic volumes exceed 16,000 vehicles at most intersection along the project and by 2030 every intersection will exceed 18,000 vehicles per day.

The Context Sensitive Solutions (CSS) process was reviewed. A group of stakeholders made up of representatives from local agencies, resource agencies, interested groups, business owners, and residents has volunteered to participate in a series of workshops. Three stakeholder workshops have been held to date. Workshop #1 identified project goals and objectives. Workshop #2 Obtained consensuses for the Purpose and Need and the preferred project elements (4 lanes, barrier or landscaped median, paved shoulders or curb and gutter, bicycle accommodations) Workshop #3 provided input during alternate development. This input was used to develop project alternatives.

AECOM presented the two alternates which have been developed for the southern portion of the project, Rainsford Drive to Hercules Road. Both alternates provide 2 lanes in each direction, turn lanes, a grassy median, paved shoulders and 10' multi-use paths on both sides of the roadway. Alternate 2 would be the same as Alternate 1 except from Ackman to the south leg of IL 176 the roadway would be shifted to the east to avoid homes on the west side of the roadway. Alternate 2 was favored by all who attended the workshops and public meetings.

AECOM presented 4 concept level alternates (Alternates A, B, C, & D) to realign the IL 176 intersection to align with the existing south IL 176 intersection, 1 concept level alternate (Alternate E) to realign the IL 176 intersection to align with the existing north IL 176 intersection, 1 concept level alternate (Alternate F) to realign the IL 176 intersection to meet halfway between the north and south IL 176 intersections, and 2 concept level alternates (Alternates G & H) which maintained the current split of the IL 176 intersection. A chart summarizing adverse travel, construction cost, wetlands, displacements, ROW, stream crossings, and level of service (LOS) was reviewed. The alternates which had the lowest cost, fewest impacts, and best LOS are Alternates G and H. Both alternates would maintain the split IL 176 intersection.

AECOM presented the two alternates which have been developed for the northern portion of the project, Hercules Road to US 14. Both alternates provide 2 lanes in each direction, turn lanes, and a raised barrier median. Alternative 1 would provide paved shoulders and 5' sidewalks on both sides of the roadway. Alternate 2 would be the same as Alternate 1 except the shoulders would be eliminated and a 10' multi-use path would be provided on one side of the roadway while a sidewalk would be provided on the other side of the roadway. Alternate 2 was favored by all who attended the workshops and public meetings.

The criteria to evaluate the alternatives would include evaluating environmental impacts, evaluating accessibility, evaluating ability to meet identified project needs, evaluating property impacts, and cost.

#### **AGENCY QUESTIONS AND COMMENTS**

A discussion was held on the logical termini of the project. All agreed that the proposed limits of the project extending along IL 47 from Reed Road to US 14 were acceptable.

A discussion was held on the concept alternatives for realigning IL 176. All agreed alternates which realigned the IL 176 intersection would have much greater impacts to wetlands, farmland, and displacements, and would also have a lower LOS than maintaining the current split alignment. USACE (Hall) questioned how the safety of the IL 176 intersection would be addressed. AECOM stated that safety would be addressed by adding additional capacity with additional through lanes and by adding turn lanes. In general, the safety of an intersection would be expected to improve with the improvement of the intersection operations.

A discussion was held on the use of Dean Street north of IL 176 in place of improving IL 47. All agreed that using Dean Street would not be compatible with land use along Dean Street and improving IL 47 would better serve the existing and future development in the area. Improving both IL 47 and utilizing Dean Street as a couplet was also discussed. All agreed that the use of Dean Street as a couplet with IL 47 would not be acceptable due to the adverse travel it would introduce.

A discussion was held on the alternatives outside the IL 176 intersection. All agreed that the proposed alternates along IL 47 from Reed Road to US 14, excluding the IL 176 intersection were acceptable.

#### **CONCURRENCE**

The USEPA (West and Westlake), USFWS (Cirton), USACE (Hall) and FHWA (Fuller) gave concurrence with the proposed project termini.

The USEPA (West and Westlake), USFWS (Cirton), USACE (Hall) and FHWA (Fuller) gave concurrence with the proposed alternates along IL 47 from Reed Road to US 14, excluding the IL 176 intersection.

The USEPA (West and Westlake), USFWS (Cirton), USACE (Hall) stated they would give concurrence for the alternates to be carried forward if the discussion of how the alternates address safety at the IL 176 intersection was expanded in Chapter 3 and if crash diagrams for the IL 176 intersection were provided for review. AECOM will provide crash diagrams and revise Chapter 3, FHWA will distribute to the agencies.

**Agenda Item # 4**

Illinois Route 47 (FAP 326) – Reed Road to US 14  
P-91-110-107  
McHenry County

**December 6, 2010**

This is the 11<sup>th</sup> presentation of this project. The previous presentation was on January 13, 2010.

The purpose of the meeting was to review the power point slides which will be presented to USACE on December 17, 2010. The presentation is in response to a letter from USACE stating they did not concur with the alternatives to be carried forward for further study. AECOM read highlights from the power point presentation.

Information on several of the slides was discussed. Matt Fuller requested that slide #3 “Project Overview – Limits” be modified to delete discussion of traffic north of US 14. He requested that the slide focus on traffic south of US 14. The slide will be modified to focus on traffic south of US 14.

A discussion was also held on the need for an additional slide which addresses why IL 47 was chosen as the roadway to improve as opposed to another roadway, such as Dean Street. A slide will be added discussing land use in the project area. The slide will highlight that improving IL 47 is compatible with future land use while improving other roadways, such as Dean Street, is not compatible with future land use.

The next step is to present the power point to USACE for concurrence.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

**IDOT District 1, McHenry County  
IL 47 from Reed Road to US 14  
Environmental Assessment  
Concurrence – Purpose and Need**

The purpose of the meeting was to present IDOT/FHWA's Purpose and Need for the IL 47 Reed Road to US 14 Study, and to obtain concurrence from the participating agencies. In August, FHWA distributed an information packet summarizing the Purpose and Need. AECOM presented additional exhibits at the meeting to further support the projects needs of safety, capacity, mobility, and economic development.

**PURPOSE AND NEED**

The purpose and need was presented at the NEPA/404 meetings on February 18, 2010 and June 11, 2010, but concurrence was not received, because additional questions by USEPA and USACE needed to be addressed.

AECOM started by reviewing the limits of the project and the logical termini. The project extends approximately 8 miles from Reed Road to US 14. It connects the Village of Huntley with the City of Woodstock, both with populations of approximately 25,000 each. The project connects a 4 lane section being built south of Reed Road, which will complete a 4 lane section to I-90, to an existing 4 lane section at US 14.

Safety, one of the needs for improvement, was discussed. Approximately half of the crashes which occur within the project limits occur at the IL 176 split intersection, while the other half occur along the length of IL 47. Crashes along the length of IL 47 are due to the lack of capacity and lack of adequate turn lanes. The project would address these by adding through lanes and protected turn lanes as determined during alternative development.

The need for improvements based on lack of capacity and mobility was discussed. AECOM presented an exhibit summarizing traffic volumes along the IL 47. Based on 2007 traffic volumes, the route carries between 14,300 and 22,300 vehicles per day, averaging 17,100 vehicles per day over the length of the project. In 2030 the projected traffic levels are between 19,000 and 33,000 vehicles per day, averaging 25,400 vehicles per day over the length of the project. A two lane roadway can safely and efficiently accommodate between 14,000 and 18,000 vehicles per day. 2007 traffic volumes exceed 16,000 vehicles at most intersection along the project and by 2030 every intersection will exceed 18,000 vehicles per day.

**AGENCY QUESTIONS AND COMMENTS**

The USEPA (West) asked if the IL 176 intersection were realigned or improved would there still be a need for the improvements to the remainder of IL 47. AECOM stated that the current traffic volumes along the length of IL 47 are at a level which would require 4 lanes. Also if the improvements were made only at IL 176, safety issues at the IL 176 intersection would decrease but new safety issues would be created at the transitions between 2 and 4 lanes and along the rest of the corridor. An aerial was reviewed and approximate widening limits were estimated for improvements at IL 176 and for other developed areas. Only 2 sections each approximately 1.5 miles long would remain 2 lanes after the improvements were made. AECOM reviewed concept alternatives for realigning IL 176. All alternatives would have much greater impacts to wetlands, farmland, and displacements than the current alignment. AECOM has performed preliminary capacity analysis which indicates the current alignment can be improved to have a LOS of B or C while the realigned intersection would have a LOS of C. USEPA (WEST) asked how safety would be addressed along the remainder of IL 47 outside the IL 176 intersection. AECOM stated during alternative development safety would be addressed by evaluating adding turn lanes and through lanes to increase capacity and mobility.

**CONCURRENCE**

The USEPA (West and Westlake), USFWS (Cirton) and IDNR (Hamer) gave concurrence with the Purpose and Need presented at the meeting.



include areas potentially affected by train noise and air emissions.

USEPA (West) noted that the proposed project improvements have the potential to bring more trains into the LaSalle Street stations. He inquired as to a potential increased noise issue at this station and wanted to make sure the study accounted for this. Doug Knuth noted that the noise model is being updated with new information to account for this condition.

USEPA (West), asked whether a public meeting had been held with the community. He noted that with the minority and low income populations in the study area, USEPA would encourage a well-designed outreach to the local Environmental Justice communities. Doug Knuth pointed out that one facet of our public involvement program would be to utilize the DBE subconsultant Ralph G. Moore and Associates to help inform and to involve the community during the NEPA process and to prepare the local community for possible future employment opportunities to come from the project should the Proposed Action be approved.

FTA (Kimmelman) asked what concerns have been raised so far in our local meetings. The request for a new METRA station was mentioned as an issue that has been raised at previous meetings with stakeholders; also the grade separation at 71<sup>st</sup> Street was a local request from the community. The Alderman in that community has a goal to promote economic development along 79<sup>th</sup> Street.

USEPA (Westlake) asked for a clarification of the name and location of these proposed grade separations. Bill Thompson, AAR CREATE Program Manager, provided clarification using a map of the CREATE projects.

FHWA (Fuller) asked if there were any other questions or issues to be addressed in the meeting. Hearing no further issues, he adjourned the meeting.

**IDOT District 1, McHenry County  
IL 47 from Reed Road to US 14  
Environmental Assessment  
Concurrence – Purpose and Need  
Concurrence – Alternatives to be Carried Forward**

The purpose of the meeting, held at the IDOT District 1 Offices was to present IDOT/FHWA's revised Purpose and Need and the Alternatives to be carried forward for the IL 47 Road Improvements from Reed Road to US 14, and to obtain concurrence from the agencies.

### **Purpose and Need**

The proposed revisions from the February 2010 Merger Meeting were discussed. Generally these consisted of including a discussion of thoughtful economic growth, revising the mobility and capacity sections, and to cite the projects that are both north and south of this as well as the Illinois Tomorrow Grant corridor study.

### **AGENCY QUESTIONS AND COMMENTS**

USEPA (West) requested clarification on the desire of stakeholder interest in environment and why a statement reflecting this sentiment was not included. In addition, parties have expressed concern to the agencies that environmental issues were not adequately being considered in the process, in particular the Kishwaukee River Watershed. Although environmental protection was a stakeholder concern it was not the primary one. There is a broad cross-section of Stakeholders and they include Crystal Lake, Huntley, Lake-in-the-Hills, Lakewood, Woodstock, McHenry County, developers, farmers and several environmental groups including the Kishwaukee River Ecosystem Partnership, Land Conservancy of McHenry County, Openlands, and others. Stakeholder workshops have been on-going and were used to development a problem statement that included the following themes:

1. Safety, as related to capacity, rear end collisions, and bicycle crossings;
2. Mobility, including the need for signal coordination;
3. Desire to protect the environment, including drainage and concerns related to the Kishwaukee River watershed; and
4. Facilitate thoughtful economic growth.

From this, the Purpose and Need was developed. FHWA and IDOT indicated there had been an environmental protection statement in a previous version. However, IDOT routinely and by policy and regulation, avoids and minimizes environmental impacts. Protection of the environment is not a need for the project, so the environmental statement was removed.

USEPA (West) indicated that given the resources along this route and the level of interest by the stakeholders and the agencies, that a statement indicating the project setting would be appropriate.

A separate environmental stakeholder meeting is being considered. However, the data is still being collected. Cultural resource and special waste clearances have been received for the project. The wetland delineations have been received but not the biological resource review from the IDNR/IDOT BDE. It was thought to be premature to meet when the IDNR data collection was incomplete. It was also noted that during the study process, environmental impacts are evaluated in a manner that could eliminate an alternative from further study. However, the existing IL 47 corridor and any proposed alternatives are all within the Kishwaukee River Watershed. Therefore, the watershed issue will not be a differentiator; all alternatives including the no-action fall within the watershed.

USACE (Chernich) asked if multi-modal uses would be considered. Bicycle/pedestrian accommodations are considered as part of the project, are illustrated on the exhibits and will be discussed during the alternatives portion of the presentation. All of the communities have expressed the desire to have bicycle/pedestrian accommodations.

### **Alternatives to be Carried Forward**

Preliminary alternatives were presented. Based on the community and stakeholder meetings, the preferred alternative would generally be a four lane roadway with a landscaped median and bicycle/pedestrian accommodations. Based on this, two preliminary alternatives have been identified; the first would share the current centerline with the widening being of equal width to both sides; the second would shift the center line towards the east. Generally, the wetland

impacts are similar under both build scenarios. The eastern shift alignment avoids several homes however. The two build alternatives to the north end of the project have reduced right of way requirements. The narrower of the two would likely impact fewer ADID wetlands. Other details of the alignments were discussed; preliminary impacts were considered to be worst-case scenario; no minimization efforts have been investigated as we do not yet have concurrence.

#### **AGENCY QUESTIONS AND COMMENTS**

USFWS (Cirton) recognized that numerous wetlands were adjacent to the existing roadway and asked if the project team had looked outside the corridor for a parallel route that may have fewer impacts. To the west there are large wetland complexes including an ADID site, and the Pleasant Valley Conservation Area, a McHenry County Conservation District Holding. To the east there are wetlands and housing developments. A new alternative in these areas would incur greater impacts and the existing alignment has already had some impact on the local resources.

USACE (Hall) asked about the median width and was it required to be 50'. It was explained that this width included two 6' shoulders and a 38' landscaped median. The median width is considered to be the minimum allowable for safety clearance and to provide turning lanes at crossroads.

USACE (Chernich) asked if the project could be elevated to an EIS. The project started as an ECAD, and was recently elevated to and EA due to the anticipated wetland impacts. Other impacts have not been identified or fully evaluated. As such, and due to the project being an existing as opposed to being on new alignment, it will continue to be pursued as an EA. If conditions change, the project could be elevated in the future.

#### **Further Discussion and Conclusion**

As a result of the meeting, the following action items were identified.

1. A sentence or two will be added to the Purpose and Need to indicate the study is within the environmentally sensitive Kishwaukee River Watershed. The Purpose and Need will then be re-circulated via email to the participants for concurrence. Concurrence can be provided via email prior to the next Merger Meeting.
2. Concurrence on the Alternatives could not be provided as this would circumvent the Purpose and Need Concurrence. This will be considered in the next Merger Meeting.

**IDOT District 1, McHenry County  
IL 47 from Reed Road to US 14  
Environmental Assessment  
Concurrence - Purpose and Need**

The purpose of the meeting was to present the Purpose and Need for the IL 47 Road Improvements from Reed Road to US 14, and to obtain concurrence from the agencies.

**Purpose and Need**

Land use in the IL 47 corridor is predominantly agricultural, with residential and some commercial. All of the municipalities along the route have plans for future development. Project planning for the IL 47 corridor has followed IDOT's Contact Sensitive Solutions (CSS) approach which includes input and concurrence with project planning from the local stakeholders. Stakeholders include Crystal Lake, Huntley, Lake-in-the-Hills, Lakewood, Woodstock, McHenry County, and several environmental groups including the Kishwaukee River Ecosystem Partnership, Land Conservancy of McHenry County, Openlands, and others. Stakeholder workshops have been on-going and were used to develop a problem statement that included the following themes:

1. Safety, as related to capacity, rear end collisions, and bicycle crossings;
2. Mobility, including the need for signal coordination;
3. Desire to protect the environment, including concerns related to the Kishwaukee River watershed; and
4. Facilitate thoughtful economic growth.

The problem statement evolved into the current Purpose and Need as presented. A review of the Purpose and Need and a discussion of its contents ensued.

**AGENCY QUESTIONS AND COMMENTS**

The CSS process identified "thoughtful growth" as a component of economic development. Language in Section 1.2.3 includes the statement "IL Route 47 serves as a commercial corridor" and concern was expressed that "thoughtful growth" from the workshops was inadvertently translated to mean economic development throughout the entire corridor. Solid commercial development throughout the corridor with unmanaged access is not the desire of the communities. USEPA (West) requested clarification on how this would be avoided and requested a commitment from IDOT that development would be determined by the needs of the community and not commercial interests. IDOT/AECOM advised the FHWA that the intersection of IL 47 and IL 176 is planned to be a commercial center. Besides this intersection, most of the corridor is planned for residential development with some commercial directly adjacent to IL 47 with consolidated access. IDOT is working with the local communities and stakeholders to determine the most appropriate places for access, depending on zoning and planned development, in order to manage commercial development. Since IL 47 is a Strategic Regional Arterial (SRA) IDOT is planning on access with 1/4 mile spacing, and appropriate placement should accomplish the goal for planned development. The local communities are in support of IDOT's plan. The Purpose and Need will be revised to better describe planned or thoughtful growth.

USACE/USEPA (Chernich, West) requested the adjacent road improvement projects, both north and south of this corridor, be added to the Introduction of the Purpose and Need. South of Reed Road, an Environmental Assessment was previously completed, the roadway has been designed and construction will commence in Spring of 2010. North of US Route 14 a separate Environmental Assessment has been initiated that will study improvements to IL Route 47 from US Route 14 to Charles Road. In addition, an "Illinois Tomorrow" grant was awarded that provides a land use based study of the IL Route 47 corridor from within Kane County northward to the Wisconsin State line. This latter study is intended to evaluate current land use and provide a planning document that combines the comprehensive planning efforts of the communities along the corridor.

USFWS (Cirton) requested clarification on the role of mobility versus capacity in Section 1.2.2. If the vehicular crashes are due to lack of capacity, then capacity should have its own section within the Purpose and Need. IDOT/AECOM explained that the vehicle crashes were due to multiple reasons, including uncontrolled access, no turning lanes, vehicular traffic that doesn't allow for adequate spacing and sufficient time for turning vehicles. The Purpose and Need will be revised to clarify mobility versus capacity and the relationship to safety.

### **Further Discussion and Conclusion**

Preliminary alternatives were briefly discussed. Based on the community and stakeholder meetings, the preferred alternative would generally be a four lane roadway with a landscaped median. Pedestrian accommodations were requested as well as paved shoulders in the rural section and curb and gutter in the urban section. Based on this, two preliminary alternatives have been identified; the first would share the current centerline with the widening being of equal width to both sides; the second would shift the center line towards the east. A preliminary impact table was distributed based on these two conceptual footprints to get an idea of what type of impacts would be encountered. Because no avoidance or minimization efforts have yet to take place, these should be considered worst case scenario impacts. IDOT/AECOM will evaluate these alternatives more closely to identify minimization opportunities. Avoidance and minimization measures could include replacement of culverts with bridges, narrowing of the right-of-way, etc. Complete avoidance of wetland impacts will not be possible in most cases as the wetlands are adjacent to both sides of the roadway. Bridging the headwaters of the Kishwaukee River in the northern portion of the project corridor would result in improved floodplain conditions, allow for animal passage and would reduce ADID wetland impacts.

USFWS (Cirton) and USACE (Chernich) requested a single sheet environmental resource map of the project corridor. A field meeting will be scheduled for the Spring of this year.

IDOT (Dees) advised that INHS has completed their fish survey of the project area. The Iowa darter was found at two locations within the project corridor. The darter was found in the headwaters of the Kishwaukee River in the northern portion of the project corridor, south of US 14; the second location was the Kishwaukee River in the central portion of the project corridor, south of IL 176. IDOT (Dees) will distribute the INHS report.

Cultural clearance has been obtained for the project. IDOT Central Office has signed off on this clearance.

As a result of the meeting, the following action items were identified.

1. Section 1.0 of the Purpose and Need will be revised to include the other IL 47 projects or studies north and south of this project.
2. The discussion of capacity will be separated from the mobility discussion in Section 1.2.2. if necessary or better clarification will be provided.
3. Section 1.2.3 of the Purpose and Need will be revised. The "commercial" reference to IL 47 will be deleted and the section will be re-written to include a commitment to facilitating "thoughtful commercial growth". A discussion of the Comprehensive Plans or zoning restrictions developed by the communities along the route will be included. References to future economic development will be changed to thoughtful economic development and the intent to incorporate development compatible to existing land use.
4. The USEPA (West) will draft a letter to Chicago Metropolitan Area Planning. FHWA, IL (Fuller) will distribute the letter upon receipt from USEPA.
5. IDOT/AECOM will provide a one page environmental resource map of the project area to USFWS and USACE.
6. IDOT (Dees) will distribute the INHS fish survey.

**Concurrence**

The attendees agreed in concept with the proposed revisions. The revised Purpose and Need and Alternatives to be Carried Forward will be presented for concurrence at a future NEPA-404 Merger Meeting.

## **Agenda Item # 10**

Illinois Route 47 (FAP 326) – Reed Road to US 14  
P-91-110-107  
McHenry County

**January 13, 2010**

This is the 10<sup>th</sup> presentation of this project. The previous presentation was on December 9, 2009.

A discussion on whether the project should proceed under the NEPA/404 merger process took place. This project was previously introduced to the NEPA/404 merger process in February 2008 as an ECAD. Since the project was not being processed as an EA or EIS it was discussed at that time whether the project should remain in the merger process. The USACE, USFWS and the USEPA deferred making this decision until the delineations and biological reviews were received. We have since received the wetland delineations, special waste and cultural sign-offs; we have not yet received the BRR.

Currently, approximately 20 acres of wetlands are within the new proposed ROW of which approximately 18 acres are ADID. This should be considered as a worse-case scenario as no avoidance or minimization efforts have taken place. The majority of the ADID wetlands are designated as such due to flood control values and not ecological qualities. The Department would likely still need to mitigate at a ratio of 5.5 to 1.

Alternative alignments generally will not reduce wetland impacts. The existing alignment already bisects wetlands and shifting to one side or the other still incurs impacts. Exhibits were distributed that showed the existing alignment and the wetland delineations. The alignment shift to the east does avoid five residences.

There was a discussion of whether the project would continue as an ECAD or be elevated to an EA with the potential wetland impacts. A conference call was arranged to include additional staff to resolve the issue.

### **Post Meeting Conference Call (January 15, 2010)**

The FHWA determined the project will proceed as an EA. The project will be presented at this coming NEPA/404 February 2010 meeting. The exhibits distributed in the FHWA coordination meeting should be used. Agricultural impacts should also be quantified. Although the alignment is within incorporated areas or unincorporated areas that are planned for development, the current land use should be evaluated.

The next step is to seek concurrence on the Purpose and Need at the NEPA/404 February 2010 meeting. The presentation should include environmental issues such as wetlands, agriculture, and displacements. If concurrence on Purpose and Need is achieved, concurrence on the alternatives to be evaluated further will be pursued at the subsequent NEPA/404 merger meeting in June.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM



## **AGENDA ITEM #4**

IL 47 – Reed Road to US 14  
McHenry County  
P-91-110-107

**December 9, 2009**

This is the 9<sup>th</sup> presentation of this project. The previous presentation was on October 7, 2009. The purpose of this presentation was to provide a update on the Public Meeting and to discuss the next steps.

Public Meeting #2 was held on November 19, 2009. The meeting included review of alternatives developed to date. The alternatives presented were produced with input from stakeholders who volunteered to attend project workshops. An audio-visual presentation and exhibits were available for viewing by the attendees. The exhibits consisted of display boards describing the Context Sensitive Solutions Process (CSS), traffic data, accident data, and large scale plots of the alternatives. IDOT/AECOM Representatives were on hand to answer any questions regarding the improvement.

Two alternatives were presented for the South End (Rainsford Drive to Hercules Road - 6.9 miles) of the project. Both alternatives improve IL 47 to include 2 lanes in each direction separated by a 42' grass median. Alternative 1 would remain centered about the current centerline. Alternative 2 would shift the improvements 33' to the east from Ackman Road to IL 176 (3.0 miles) to avoid impact to residences and business on the west side of IL 47.

Two alternatives were presented for the North End (Hercules Road to US14 – 0.9 miles) of the project. Both alternatives would improve IL 47 to include 2 lanes in each direction separated by a raise barrier median. Alternative 1 would provide an 18' median, sidewalk on one side of the roadway, curb and gutter and a bicycle path on the other side. Alternative 2 would provide a 22' median, shoulders, curb and gutter and sidewalk on both sides of the roadway.

The primary concerns of the stakeholders via discussion or in written comments were accessibility, providing bike paths, runoff water quality, wetland impacts, tree removal, general geometric differences of Public Meeting's two alternatives vs. the IDOT SRA study, being a participant in further workshops, and ROW acquisition.

Of the 2 South Alternatives presented the majority of stakeholders, who had a preference, favored South Alternative 2. Of the North Alternatives presented the majority of stakeholders, who had a preference, favored North Alternative 2.

BDE & FHWA concurred with the combination of South Alternative 2 and North Alternative 2 as the preferred alternate.

This project was introduced to the NEPA/404 merger process in February 2008 as an ECAD unless journal indicates significant impacts. Since the project was not being processed as an EA or EIS it was discussed whether the project should remain in the NEPA/404 merger process. The USACOE, USFWS and the USEPA deferred making this decision until more information was gathered. The project was to remain in the NEPA/404 merger process until the wetland delineations are completed and the IDNR coordination takes place during the ESRF processing. We now have the wetland delineations and cultural information; we do not yet have the BRR. Currently, without avoidance or minimization efforts the wetland impacts are at approximately 20 acres. The project will be presented at this coming NEPA/404

February 2010 meeting. We will seek concurrence on the Purpose and Need. The alternatives discussion will be re-submitted to Central Office and FHWA for review. If possible, we will also seek concurrence on the alternatives discussion to be carried forward at the February meeting.

The next step for the study will be to obtain concurrence from the NEPA committee on the preferred alternate to be carried forward and to refine the preferred alternate through further geometric studies, FHWA and BDE review, along with a stakeholder workshop in early fall 2010.

The next public involvement will be to meet with locate agencies and stakeholders to discuss individual concerns.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

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## **Agenda Item # 5**

Illinois Route 47  
From Reed Road to US 14  
P-91-110-107  
McHenry County

**October 7, 2009**

This is the 8<sup>th</sup> presentation of this project. The previous presentation was on June 10, 2009. The purpose of the meeting is to present and discuss the results of Workshop #3 and the proposed alternatives to be presented at a Public Meeting.

IDOT and its consultant AECOM held Workshop #3 on October 6, 2009. The workshop included review of alternatives anticipated to be presented at the Public Meeting. The alternatives presented were produced based on input from stakeholders in Public Meeting #1 and Workshops #1 & #2. Each alternatives presented in Workshop #3 was on a large scale aerial exhibit.

The two alternatives presented for the South End of the project (Reed Road to Hercules Road - 6.9 miles) would improve Illinois Route 47 (IL-47) to 2 lanes in each direction separated by a 42' grass median. Alternative 1 would remain centered about the current centerline and Alternative 2 would shift the improvements 33' to the east from Ackman Road to IL-176 (3.0 miles) to reduce impacts to residences and business on the west side of IL-47.

In addition, two alternatives were presented for the North End of the project (Hercules Road to US-14 – 0.9 miles). Both alternatives would improve IL-47 to include 2 lanes in each direction separated by a raised barrier median. Alternative 1 would provide a 22' median, shoulders, and sidewalk on both sides of the roadway and Alternative 2 would provide a 16' median, sidewalk on one side of the roadway, and a bicycle path on the other side.

The stakeholders response to the alternatives presented in Workshop #3 was very favorable.

The next step is to continue preparing exhibits and aerials for presentation at the Public Meeting. BDE and FHWA requested AECOM submit the plan exhibits and alternate description chapter to BDE for review before proceeding to the Public Meeting.

The exhibits and alternatives are anticipated to be presented at a Public Meeting scheduled for November 19, 2009.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

## **NEPA/404 Merger Meeting Summary September 9, 2009**

<b>IDOT District 1, McHenry County IL 47 from Reed Road to US 14 Environmental Assessment Purpose and Need</b>
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The purpose of the meeting, held at the FHWA Illinois Division Office, was to present IDOT/FHWA's Purpose and Need for the IL 47 Reed Road to US 14 Study, and to obtain concurrence from the participating agencies.

In August, FHWA distributed an information packet summarizing the Purpose and Need.

AECOM presented additional exhibits at the meeting to further support the projects needs of safety, capacity, mobility, and economic development.

### **PURPOSE AND NEED**

The purpose and need was presented at the NEPA/404 meetings on February 18, 2010 and June 11, 2010, but concurrence was not received, because additional questions by USEPA and USACE needed to be addressed.

AECOM started by reviewing the limits of the project and the logical termini. The project extends approximately 8 miles from Reed Road to US 14. It connects the Village of Huntley with the City of Woodstock, both with populations of approximately 25,000 each. The project connects a 4 lane section being built south of Reed Road, which will complete a 4 lane section to I-90, to an existing 4 lane section at US 14.

Safety, one of the needs for improvement, was discussed. Approximately half of the crashes which occur within the project limits occur at the IL 176 split intersection, while the other half occur along the length of IL 47. Crashes along the length of IL 47 are due to the lack of capacity and lack of adequate turn lanes. The project would address these by adding through lanes and protected turn lanes as determined during alternative development.

The need for improvements based on lack of capacity and mobility was discussed. AECOM presented an exhibit summarizing traffic volumes along the IL 47. Based on 2007 traffic volumes, the route carries between 14,300 and 22,300 vehicles per day, averaging 17,100 vehicles per day over the length of the project. In 2030 the projected traffic levels are between 19,000 and 33,000 vehicles per day, averaging 25,400 vehicles per day over the length of the project. A two lane roadway can safely and efficiently accommodate between 14,000 and 18,000 vehicles per day. 2007 traffic volumes exceed 16,000 vehicles at most intersection along the project and by 2030 every intersection will exceed 18,000 vehicles per day.

### **AGENCY QUESTIONS AND COMMENTS**

The USEPA (West) asked if the IL 176 intersection were realigned or improved would there still be a need for the improvements to the remainder of IL 47. AECOM stated that the current traffic volumes along the length of IL 47 are at a level which would require 4 lanes. Also if the improvements were made only at IL 176, safety issues at the IL 176 intersection would decrease but new safety issues would be created at the transitions between 2 and 4 lanes and along the rest of the corridor. An aerial was reviewed and approximate widening limits were estimated for improvements at IL 176 and for other developed areas. Only 2 sections each approximately 1.5 miles long would remain 2 lanes after the improvements were made. AECOM reviewed concept alternatives for realigning IL 176. All alternatives would have much

greater impacts to wetlands, farmland, and displacements than the current alignment. AECOM has performed preliminary capacity analysis which indicates the current alignment can be improved to have a LOS of B or C while the realigned intersection would have a LOS of C. USEPA (WEST) asked how safety would be addressed along the remainder of IL 47 outside the IL 176 intersection. AECOM stated during alternative development safety would be addressed by evaluating adding turn lanes and through lanes to increase capacity and mobility.

**CONCURRENCE**

The USEPA (West and Westlake), USFWS (Cirton), IDNR (Hamer) and FHWA (Fuller) gave concurrence with the Purpose and Need presented at the meeting.

## **AGENDA ITEM # 4**

Preliminary Engineering  
Illinois Route 47 – Reed Road to US 14  
P-91-110-107  
McHenry County

**June 10, 2009**

This is the 7<sup>th</sup> presentation of this project. The previous presentation was on April 8, 2009. The purpose of the presentation was to provide a summary of Stakeholder Workshop #2 and identify next steps in the Context Sensitive Solutions (CSS) process.

The second Stakeholder Workshop Meeting for the Illinois Route 47 (IL 47) Study was held on May 29, 2009 from 10:00 a.m. to 12 p.m. The workshop was held at the Huntley Park District REC Center (12015 Mill Street, Huntley, IL) located approximately ¼ mile west of IL 47 and 1 1/3 miles south of the start of the study area. The meeting was attended by 17 stakeholders. The purpose of the workshop was to obtain consensus for the Project Problem Statement, review the Project Purpose and Need, discuss project transportation deficiencies, and to obtain public input into possible solutions to the deficiencies. The workshop consisted of a power point presentation and a group exercise. The power point presentation included a review of goals and objective set in the first Workshop, presentation of the Project Problem Statement, review the Project Purpose and Need, and presentation of project transportation deficiencies. Consensus was obtained on the Project Problem Statement and the stakeholders were encouraged to comment on the Project Purpose and Need by June 15, 2009. No comments have been received to date. The group exercise was lead by a moderator from AECOM. The purpose of the exercise was to obtain public input into possible solutions to the identified deficiencies. The exercise consisted of discussing how well project elements such as number of lanes, medians, edge treatments, and pedestrian/bicycle accommodations meet the project needs. Consensus was reached on the following project elements: 4 lanes are preferred, a barrier or wide grass median is preferred, a pave shoulder or paved shoulder with curb & gutter is preferred, and a bicycle path is preferred.

The next step is to prepare conceptual alternatives base on the collected data, public input, and engineering studies. Anticipated alternatives include: No Build, 4 lanes on current alignment, and 4 lanes on an alignment shifted to the east to minimize impacts to wetlands and residences. The alternatives will be “previewed” at a Stakeholder Workshop in September. The “preview” will help build public support and provide additional input for the alternatives.

A second Public Informational Meeting is anticipated in October 2009. The purpose of the meeting will be to present alternatives developed based on the input obtained at the Stakeholder Workshops.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT  
B. Smith – AECOM  
J. Havel – AECOM

## **AGENDA ITEM # 2**

Preliminary Engineering  
Illinois Route 47 – Reed Road to US 14  
P-91-110-107  
McHenry County

**April 8, 2009**

This was the 6<sup>th</sup> presentation of this project. The previous presentation was on November 19, 2008. The purpose of the presentation was to provide a summary of Public Meeting #1 and identify next steps in the Context Sensitive Solutions (CSS) process.

The first Stakeholder Workshop Meeting was held on February 13, 2009 from 10:00 a.m. to 12 p.m. The workshop was held at the Huntley Park District REC Center (12015 Mill Street, Huntley, IL) located approximately ¼ mile west of Illinois Route 47 (IL 47) and 1 1/3 miles south of the start of the study area. The purpose of the workshop was to introduce the Context Sensitive Solutions (CSS) process and obtain public input for the project's goals and objectives which will provide input for a purpose and need statement. The workshop consisted of a power point presentation and 2 group exercises. The power point presentation included an introduction to the project team, a brief description of CSS/Stakeholder Involvement Plan (SIP), and a brief project overview. The 2 group exercises were lead by a moderator from AECOM. The purpose of the exercises was to determine the project goals and objectives. The workshop obtained consensus on 4 project goals and objectives. The goals and objectives are: improve safety of IL 47, improve mobility on IL 47, protect the environment along IL 47, and accommodate economic development along IL 47. The meeting was attended by 19 stakeholders.

A Draft Purpose and Need Statement has been prepared and submitted. The submitted purpose was stated as "The purpose of the proposed action is to provide an improved transportation system for IL 47 from Reed Road to US 14. Improvements to this route are needed to address vehicular and pedestrian traffic safety, enhance traffic mobility and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route." Need was documented for safety, mobility and economic development. The Draft Purpose and Need Statement will be reviewed and comments will be provided. BDE and FHWA suggested eliminating the following statement "while minimizing impacts to the environmental resources along the route." Since minimizing environmental impacts is the principle of the NEPA policies and is fundamental to the Phase I process and therefore does not need to be uniquely identified as a purpose or need.

A second Stakeholder Workshop is planned for the end of May. The purpose of the workshop will be to obtain public input for project typical section elements. The workshop will review the results of the first workshop, obtain consensus on Problem Statement, review Purpose and Need Statement, and have two group exercises to obtain stakeholder input into the alternates which will be developed.

A second Public Informational Meeting is anticipated in October 2009. The purpose of the meeting will be to present alternates developed based on the input obtained at the Stakeholder Workshops.

BDE and FHWA agreed with the project proceeding as discussed above.

C. Lewis – IDOT  
M. Morse - IDOT

B. Smith – AECOM  
J. Havel – AECOM



## **Agenda Item # 2**

Preliminary Engineering  
IL Route 47: Reed Road to US Route 14  
P-91-101-07  
McHenry County

**November 19, 2008**

This was the fifth presentation for this project. The previous presentation was on June 11, 2008. The purpose of the presentation was to provide a summary of Public Meeting #1 and identify next steps in the CSS process.

The initial Public Meeting was held on September 10, 2008. The public was notified of the Public Meeting through advertisement in two newspapers, announced on Project Website and over 400 invitations letters were sent to project stakeholders, property owners and environmental groups. The open house meeting presented an A/V presentation, the project brochure, an existing conditions aerial map, traffic and crash history and boards explaining the CSS process. The meeting was attended by 26 people. 22 comments were received of which all were in support of the project and expressed desire for the project to move forward. Additional outreach meetings are being scheduled over the next few months with various stakeholder groups to increase awareness of the project and develop a base for the stakeholder workshops.

A series of themed workshops will be held with stakeholders in early 2009. All identified stakeholders will be invited to each meeting with the theme stated in the invitation. The first workshop will define the workshop process, review the ground rules, define consensus, and review the existing conditions, traffic and accident history. The goal of the workshop will be to identify public concerns such as mobility needs, economic development, quality of life, safety, traffic congestion, and environmental issues. Project goals will be developed and the development of the Purpose and Need will be initiated.

C. Lewis / M. Rempfer (CTE)

## **Agenda Item # 5**

IL 47 – Reed Road to US 14  
P-91-110-107  
McHenry County  
**June 11, 2008**

This was the fourth presentation for this project. The project was last presented on March 12, 2008. The purpose of the presentation was to discuss the logical termini, Stakeholder Involvement Plan (SIP) and the public involvement process.

IDOT BDE and FHWA concurred with the logical termini as presented. The southern termini will match into the limits of IDOT study P-91-195-99 at Reed Road. The northern termini will end south of US Route 14 matching into the existing 5-lane section. It was mentioned that IDOT BLRS is coordinating with the Village of Woodstock on a separate local-led Phase I Study to improve IL Route 47 from IL Route 120 to US Route 14. It was determined that the logical termini may need to be shifted slightly to the north of US Route 14 as the study progresses to ensure the two studies match.

IDOT BDE and FHWA concurred with the revised version of the SIP. IDOT District 1 and CTE are continuing to conduct project kickoff meetings with each of the municipalities along the corridor as well as with McHenry County. These meetings are for data collection purposes, introduction of the project and to discuss the CSS process and overall schedule. Each of the local agencies is completing a Community Context Audit Form. Upon receipt of each of the forms, a summary matrix will be compiled.

It was agreed that this project can proceed with preparations for the initial public meeting with a target date of early August 2008.

C. Lewis / M. Rempfer (CTE)

## **Agenda Item # 1**

IL 47 – Reed Road to US 14  
P-91-110-107  
McHenry County  
March 12, 2008

This was the third presentation for this project. The project was last presented on February 6, 2008. The purpose of the presentation was to further discuss the northern logical termini and to submit a revised Stakeholder Involvement Plan (SIP).

For the northern termini, it was requested the study match into the 5-lane section, just south of US 14 (southern limits of Woodstock). The proposed termini were shown to be of sufficient length to address environmental matters on a broad scope as the study extends between the two major population centers prior to the State line and US 14 is a crossroad with a functional classification equal or higher than IL 47.

Further, the proposed improvement study will not restrict consideration of alternatives for other reasonably foreseeable transportation improvements north of US 14. The land use along both sides of IL 47 between Huntley and Woodstock is experiencing rapid residential and commercial growth which will increase traffic in the corridor. Proposed improvements to IL 47 south of US 14 are intended to accommodate that growth and are not anticipated to distribute any greater amount of traffic into the City of Woodstock than would occur without the improvements. The proposed improvements are not necessarily intended to accommodate pass through traffic, but are intended to accommodate the traffic generated in the newly developing corridor. It is not anticipated that proposed improvements south of US 14 would force the need for improvements north of US 14.

Although future traffic will likely increase north of US 14 whether improvements south of US 14 were to occur, the location of the major employment and commercial destinations are south and east of the City of Woodstock. The major east-west crossroads along IL 47 through the center of Woodstock include IL 120, Country Club Road, and McConnell Road. The traffic from IL 47 in this roadway section disperses to the east along these east-west routes. Along IL 47, the ADT diminishes as traffic moves southward through town from a peak of 16,900 between IL 120 and Country Club Road down to 12,000 at US 14. Along IL 120, the ADT increases from 5,900 west of IL 47 to 9,800 east of IL 47. Similarly, Country Club Road and US 14 increase from 3,700 to 9,100 and 13,500 to 18,200 respectively from the west side of the City to the east side. These traffic patterns indicated that traffic is dissipating to the major east west cross roads south and/or east of the center of Woodstock. Therefore the proposed logical termini of the improvement study allow for a roadway of independent utility that will not restrict the consideration of alternatives for the reasonably foreseeable future.

The revised SIP was distributed which addresses FHWA comment as distributed at the previous meeting.

C. Lewis / M. Rempfer (CTE)

## **Agenda Item # 5**

IL 47 – Reed Road to US 14  
P-91-110-107  
McHenry County  
February 6, 2008

This was the second presentation for this project. The project was last presented on November 7, 2007. The purpose of the presentation was to revisit the logical termini from the previous meeting and to address FHWA comments on the draft Stakeholder Involvement Plan (SIP).

IDOT recently obtained design approval for the improvement of IL 47 from Kreutzer Road to Reed Road through the town of Huntley. It was agreed upon that the southern logical termini will match into the limits of the previous study at Reed Road.

For the northern termini, IDOT requested the study end at US 14 (southern limits of Woodstock) whereas US 14 was improved in 2003 with channelization improvements made to the IL 47 approaches. The FHWA requested additional information with respect to traffic volumes along IL 47 at US 14 and through the City of Woodstock north to Charles Road to ensure the project has independent utility and does not result in project segmentation. There was also concern that the proposal would increase traffic into the City, thereby compounding congestion.

FHWA requested that IDOT remove the Community Advisory Group (CAG) from the SIP. The project scope does not warrant a separate advisory group at this time. If the community involvement process warrants, the SIP can be revised at a later date to form the CAG. The FHWA presented other minor comments to the SIP and concurs with the document upon making the corrections as directed.

C. Lewis / M. Rempfer (CTE)

After the meeting, traffic figures along IL47 through Woodstock to Charles Road were provided. These figures showed that traffic dissipated north of US14. In addition, BDE materials that discuss logical termini decisions were presented to FHWA.

### **NEPA/404 Agenda Item # 3**

IL 47 – Reed Road to US 14  
P-91-101-907  
McHenry County  
February 7, 2008

This was the initial presentation for this project. The purpose of the presentation was to introduce the project including an overview of existing conditions, discuss the CSS component, and to identify the anticipated impacts to wetlands and streams along the project.

The project limits extend 7.5 miles along IL 47 from the northern limits of Huntley, IL to Woodstock, IL in rural McHenry County. Typically, the existing roadway cross section is one lane in each direction with shoulders. The land use abutting the roadway includes residential, commercial, industrial, and potential historic properties. Throughout the project, large residential subdivisions are planned with developers already providing turn lanes and median improvements at the entrances. The proposed improvement is anticipated to address geometric modifications through widening/reconstruction or reconstruction to meet the heavy travel demands projected for the year 2030 including a center median to accommodate turning vehicles, signal improvements, auxiliary lanes, and possibly additional through lanes. The intersection with IL 176 is located near the middle of the project and is included in the study. IDOT is not approaching this project with any preconceived notions of the ultimate improvement and will develop the consensus project purpose through the Context Sensitive Solutions (CSS) process.

Environmental Survey Request Forms will be forwarded to central office for cultural, special waste and wetland investigations. Of particular note is the presence of ADID wetlands along existing IL 47. Seven ADID wetlands abut the route with several more in the project corridor. Of these, six are considered high functional value wetlands (likely stormwater storage) including the headwaters of the Kishwaukee River. Another ADID wetland near IL 176 is listed as having high quality wildlife habitat. The USACOE will provide data for this wetland.

It was asked whether the alignment could be shifted to avoid any of these wetlands. The alignment currently bisects many of the wetlands so there are already impacts to the wetlands. Furthermore any shift would likely cause greater impact to a portion or all of another ADID wetland.

The project is anticipated to be processed as an ECAD. Since this project is currently not being processed as an EA or EIS it was discussed whether the project should remain in the NEPA/404 merger process. The USACOE, USFWS and the USEPA deferred making this decision until more information is gathered. The project will remain in the NEPA/404 merger process until the wetland delineations are completed and the IDNR coordination takes place during the ESRF processing.

C. Lewis / M. Rempfer (CTE)

#### **Agenda Item # 4**

IL 47 – Reed Road to US 14  
P-91-101-907  
McHenry County  
November 7, 2007

This was the initial presentation for this project. The purpose of the presentation was to introduce the project including an overview of existing conditions, discuss the CSS component, and to identify the level of Phase I documentation.

The project limits extend 7.5 miles along IL 47 from the northern limits of Huntley, IL to Woodstock, IL in rural McHenry County. Typically, the existing roadway cross section is one lane in each direction with shoulders. The land use abutting the roadway includes residential, commercial, industrial, and potential historic properties. Throughout the project, large residential subdivisions are planned with developers already providing turn lanes and median improvements at the entrances. The proposed improvement is anticipated to address geometric modifications through widening/reconstruction or reconstruction to meet the heavy travel demands projected for the year 2030 including a center median to accommodate turning vehicles, signal improvements, auxiliary lanes, and possibly additional through lanes. The intersection with IL 176 is located near the middle of the project and is included in the study. IDOT is not approaching this project with any preconceived notions of the ultimate improvement and will develop the consensus project purpose through the Context Sensitive Solutions (CSS) process.

The logical termini were discussed and agreed upon in concept. To the south, IL 47 will tie into the proposed five lane section at Reed Road and into the existing five lane section at US 14 at the northern limits. The logical termini will be revisited subsequent to the development of the consensus project purpose and need.

The public involvement program will be based upon the principles of CSS. CTE has developed an initial schedule of meetings which identifies the first public meeting to be held in the Spring of 2008, the second in Fall of 2009 and the Public Hearing in Summer 2010. Development of the Stakeholder Involvement Plan (SIP) will follow IDOT BDE Procedure Memorandum 48-06. FHWA requested that the SIP be presented at a coordination meeting for approval.

Several areas of environmental concerns are present along IL 47. Numerous wetlands are located along the corridor, including ones that are identified in the Advanced Identification of Wetlands, Lakes, and Streams Study (ADID). A few of these wetlands touch the existing two lane footprint and will likely be impacted. The Kishwaukee River and Headwaters are located near the northern limits of the project and will be involved with any improvements to structure crossing the river (SN 056-0025). A functioning aluminum foundry is located towards the northern limits of the project potentially involving contaminated soils. Several old farmhouses and brick gates are scattered along the corridor which may present cultural significance. IDOT will present the project at the NEPA/404 Merger Meeting on February 7th, 2008.

The project is anticipated to be processed as an ECAD. FHWA concurred with this direction, but may require an EA if the ECAD journal indicates significant impacts.

C. Lewis / M. Rempfer (CTE)

**Appendix E**  
**Public Involvement Comments**

**Public Meeting #2**  
**November 19, 2009**





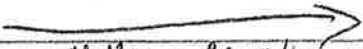
PUBLIC MEETING

Project/Topic: IL 47: Reed Rd. to U.S. 14  
 Date: November 19, 2009  
 Time: 4:00 PM TO 7:00 PM  
 Location: MARTIN ELEMENTARY SCHOOL, HUNTLEY

	Attendees	Address	Representing	Email Address
1.	Catherine Peterson	2500 Lake Ave. Village of Lakewood 60014	Village of Lakewood	petersonc.village@lakewood.il.us
2.				
3.	Tim Kellough	7 STONEHILL RD OSWEGO, IL 60543	TEMPLETON PROPERTY CONSULTANTS	tkellough@templeton-pc.com
4.	DEBS ANDERSON	2712 SPAINSBROOK CRYSTAL LAKE 60012	OPENLANDS and KISHAWAEE RIVER ECOSYSTEM PARTNERSHIP	
5.	Moby Wilgreen	1000 Woodstock St Crystal Lake, IL 60014	City of Crystal Lake	awilgreen@crystal.lk.il.us
6.	Doreen Legenza	11611 Hawthorne Way Huntley IL 60072	homeowner	songal33@shcglobal.com
7.	JOHN CRAIG	11620 Ballard Rd Huntley	Crystal Woods Golf.	Johncraig@pga.com
8.	DAVE Gieseke	3217 E TOWN COTTAGE	C. L. IL. 60014	
9.	DARCIE GARDNER	11967 CAMELOT	SAI	
10.	Penny Wilkerson	PO Box 914 Huntley IL 60072	8401 N. Rt 47 homeowner	PennyJ065@AOL.com
11.	DAN HAVIR	1110 LAKE COOK Bldg 60069	SULLIVAN	DHAVIR@TPS.NET
12.	Joe Lewis	266 Satebrush (my)	Self	
13.	Delores Swanson	408 F St Johns Rd woodstock	Self	dswanson@alden-hoban.org
14.	Alan R. Swanson	11717 Pleasant Valley Rd Woodstock IL	Self	
15.	Dale Swanson	232 E Main Geneva	Self	DLHswanson@verizon.net
16.	Steven Byers		INPC	Steven.Byers@Illinois.gov
17.				
18.				
19.				
20.				
21.				
22.				

# ILLINOIS 47 STUDY

## Open House Public Meeting # 2

NAME	Address	Representing
JERRY HUTCHISON	9803 N. RT 47	SELF
MARILYN HUTCHISON	9803 N. RT 47	SELF
Rob Scardino	Village of Huntley	 McHenry County Conservation District
Jenny Heider	18410 US Hwy 14 Woodstock IL	
James Williams	10987 MAIN ST. VILLAGE OF HUNTLEY	Planning & Zoning Div.
LARRY D. PIEKOS	13315 HICKORY LANE WOODSTOCK IL 60098	SELF
Jack Truand	10109 VINE ST HUNTLEY	Groffton Twp.
Willy P. Frisch	16111 Nelson Rd Woodstock	McHenry County DOT

## Havel, Joe

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**From:** Havel, Joe  
**Posted At:** Wednesday, April 07, 2010 2:11 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
  
**Subject:** Thomas Reply 11-16

We will added you to the stakeholder list.

**Joe Havel**  
312-373-6702  
[joe.havel@aecom.com](mailto:joe.havel@aecom.com)

**AECOM**  
303 E Wacker Drive, Suite 600, Chicago, IL 60601  
T:312-939-0300 F 312-373-6834  
[www.aecom.com](http://www.aecom.com)

**From:** [webadmin@route47study.com](mailto:webadmin@route47study.com) [<mailto:webadmin@route47study.com>]  
**Posted At:** Monday, November 16, 2009 11:14 AM  
**Posted To:** IL47 - IDOT  
**Conversation:** IL-47 Comment  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Katherine Thomas  
**Email:** [c\\_k\\_thomas@sbcglobal.net](mailto:c_k_thomas@sbcglobal.net)  
**Occupation:**  
**Company:**  
**Address:** 190 E. Wilson St.  
**City:** Elmhurst  
**State:** IL  
**Zipcode:** 60126  
**Telephone:**  
**Newsletter:** Yes  
**Stakeholder:**  
**Comments:**

## Havel, Joe

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**From:** Havel, Joe  
**Posted At:** Wednesday, April 07, 2010 2:14 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** Heimsoth reply 11-9

All exhibits presented at the Stakeholder Workshops and Public Meetings are available on line. They can be viewed on the "Community Involvement" page.

**Joe Havel**  
312-373-6702  
[joe.havel@aecom.com](mailto:joe.havel@aecom.com)

**AECOM**  
303 E Wacker Drive, Suite 600, Chicago, IL 60601  
T 312-939-0300 F 312-373-6834  
[www.aecom.com](http://www.aecom.com)

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**From:** [webadmin@route47study.com](mailto:webadmin@route47study.com) [mailto:[webadmin@route47study.com](mailto:webadmin@route47study.com)]  
**Posted At:** Monday, November 09, 2009 10:03 AM  
**Posted To:** IL47 - IDOT  
**Conversation:** IL-47 Comment  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Larry Heimsoth  
**Email:** [conejolarry@msn.com](mailto:conejolarry@msn.com)  
**Occupation:** retired  
**Company:**  
**Address:** 984 Bright Star Cir.  
**City:** Thousand Oaks  
**State:** CA  
**Zipcode:** 91360  
**Telephone:**  
**Newsletter:** Yes  
**Stakeholder:**

**Comments:** I am a property owner along route 47. Since I live in Ca. I am unable to attend your upcoming meeting regarding the route 47 study. Is there any information available online or can copies of the info be mailed to me? Thank you, Larry Heimsoth

## Havel, Joe

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**From:** Havel, Joe  
**Posted At:** Wednesday, April 07, 2010 2:16 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** Gabrisko reply 11-18

The next Public Meeting is tentatively scheduled for fall 2010. Please visit website for updates.

**Joe Havel**  
312-373-6702  
[joe.havel@aecom.com](mailto:joe.havel@aecom.com)

**AECOM**  
303 E Wacker Drive, Suite 600, Chicago, IL 60601  
T 312-939-0300 F 312-373-6834  
[www.aecom.com](http://www.aecom.com)

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**From:** [webadmin@route47study.com](mailto:webadmin@route47study.com) [mailto:[webadmin@route47study.com](mailto:webadmin@route47study.com)]  
**Posted At:** Wednesday, November 18, 2009 1:24 PM  
**Posted To:** IL47 - IDOT  
**Conversation:** IL-47 Comment  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Darcie Gabrisko  
**Email:** [darcie.gabrisko@strand.com](mailto:darcie.gabrisko@strand.com)  
**Occupation:** Civil Engineer  
**Company:** Strand Associates, Inc.  
**Address:** 1170 Houbolt Road  
**City:** Joliet  
**State:** IL  
**Zipcode:** 60431  
**Telephone:** 815-744-4200  
**Newsletter:** Yes  
**Stakeholder:**  
**Comments:** Is the next public meeting scheduled? If so, when. thanks darcie

## Havel, Joe

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**From:** Havel, Joe  
**Posted At:** Wednesday, April 07, 2010 2:20 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** Balleto reply 12-2

The next Stakeholder Workshop is tentatively scheduled for fall 2010, the next Public Meeting is tentatively scheduled for late fall 2010. Alternatives presented at the Public meeting can be viewed on line on the "Community Involvement" page.

**Joe Havel**  
312-373-6702  
[joe.havel@aecom.com](mailto:joe.havel@aecom.com)

**AECOM**  
303 E Wacker Drive, Suite 600, Chicago, IL 60601  
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[www.aecom.com](http://www.aecom.com)

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**From:** [webadmin@route47study.com](mailto:webadmin@route47study.com) [mailto:[webadmin@route47study.com](mailto:webadmin@route47study.com)]  
**Posted At:** Wednesday, December 02, 2009 10:42 AM  
**Posted To:** IL47 - IDOT  
**Conversation:** IL-47 Comment  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Mike Balleto  
**Email:** [mike@krimsonvalley.com](mailto:mike@krimsonvalley.com)  
**Occupation:** Owner  
**Company:** Gardens of Woodstock  
**Address:** 5211 Swanson Rd  
**City:** Woodstock  
**State:** IL  
**Zipcode:** 60098  
**Telephone:** 815-337-2509  
**Newsletter:** Yes  
**Stakeholder:** Yes  
**Comments:** When is next meeting? What is the planned configuration of Swanson Road ?

## Havel, Joe

---

**From:** Havel, Joe  
**Posted At:** Wednesday, April 07, 2010 2:21 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** Swanson Reply 12-3

We will add you to the Stakeholder List.

**Joe Havel**  
312-373-6702  
[joe.havel@aecom.com](mailto:joe.havel@aecom.com)

**AECOM**  
303 E Wacker Drive, Suite 600, Chicago, IL 60601  
T 312-939-0300 F 312-373-6834  
[www.aecom.com](http://www.aecom.com)

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**From:** [webadmin@route47study.com](mailto:webadmin@route47study.com) [mailto:[webadmin@route47study.com](mailto:webadmin@route47study.com)]  
**Posted At:** Thursday, December 03, 2009 6:51 AM  
**Posted To:** IL47 - IDOT  
**Conversation:** IL-47 Comment  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Delores Swanson  
**Email:** [dswanson@alden-hebron.org](mailto:dswanson@alden-hebron.org)  
**Occupation:** teacher  
**Company:** self  
**Address:** 408 F St Johns Road  
**City:** Woodstock  
**State:** IL  
**Zipcode:** 60098  
**Telephone:** 815-526-2114  
**Newsletter:** Yes  
**Stakeholder:** Yes

**Comments:** I own land that will be effected by this project. I am very intersted in attending the next meeting and staying informed. Thank You, Delores Swanson



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Daniel Havlir  
1110 Lake Cook Road  
Buffalo Grove, IL 60098

Dear Mr. Havlir:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47 (IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning access and property impacts will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.



Mr. Daniel Havlir  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

S:\Gen\WP\p&es\CONSULT\CDL\IL 47 - US 14 to Reed\Public Meeting Info\Responses\PIM Reply Letter 2-22-10 rev per John Comments by MMM - Daniel Havlir.docx

IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: DANIEL M. HAVLIR

Address: 1110 LAKE COOK RD.

Phone: 847 520 8910

BUFF. GROVE, IL

Email: DHAVLIR@TDS.NET

60089

REPRESENTING SULLIVAN PROPERTY

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

EITHER OPTION — WE ARE VERY CONCERNED THAT FULL ACCESS IS NOT SHOWN AT THE SOUTH END OUR PARCEL. PLEASE NOTE THAT WE WERE GIVEN THE VILLAGE OF HUNTLEY ROUTE 47 ACCESS PLAN (ATTACHED) WHICH DOES SHOW FULL ACCESS TO OUR PROPERTY AT OUR SOUTH LINE (COMBINED ACCESS W/CENTERVILLE PARCEL)

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

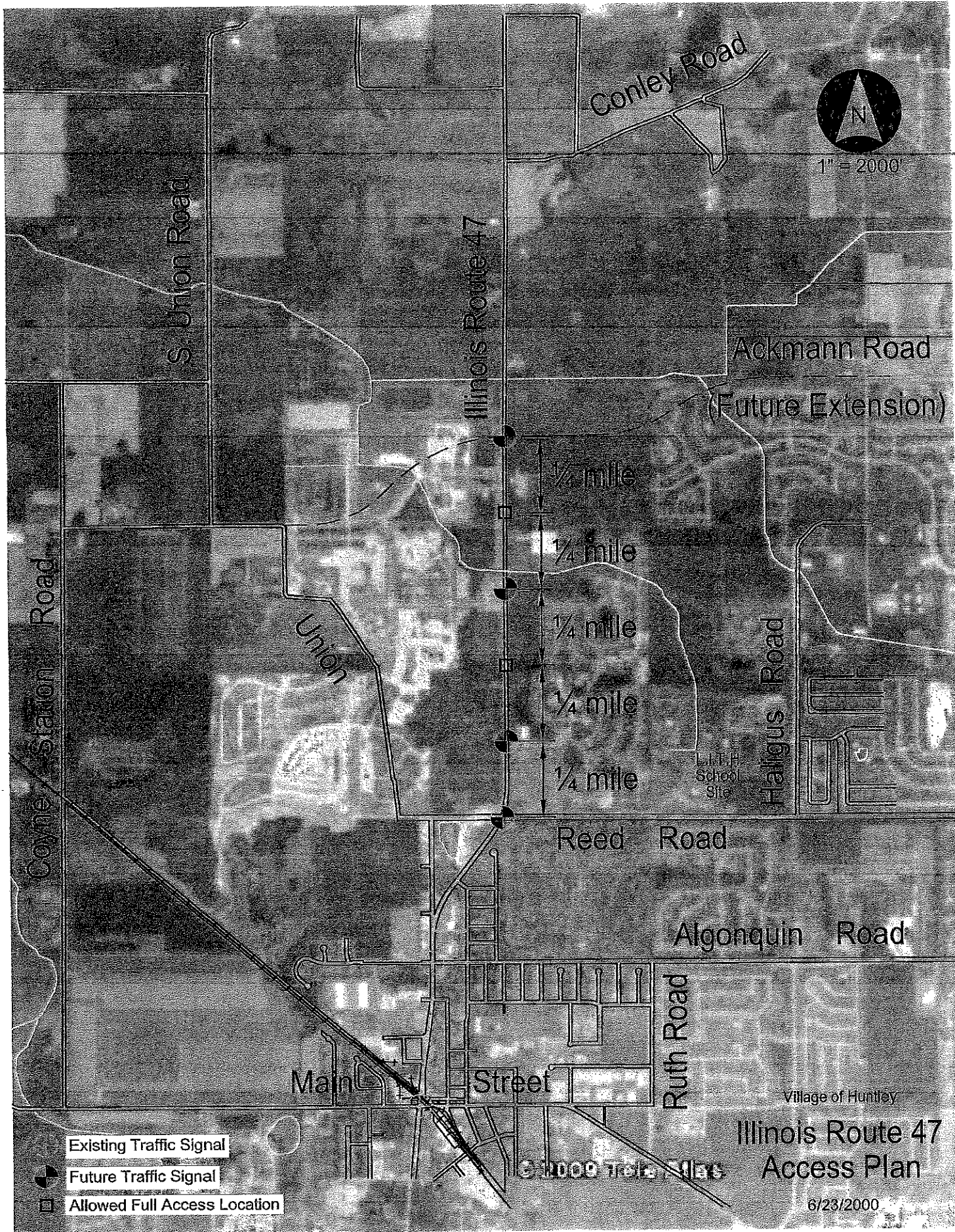
North End Comments

WE ARE ALSO CONCERNED ABOUT THE 200' R/W WIDTH. A CONSIDERABLE PART OF PROPERTY (30' x 1318') BEYOND WHAT WE WERE PREVIOUSLY TOLD WAS NEEDED FOR ROUTE 47 R/W IS BEING TAKEN. IN ADDITION, THE VILLAGE OF HUNTLEY REQUIRES A 100' LANDSCAPED SETBACK

Other Comments FROM THE R/W.

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



1" = 2000'

Existing Traffic Signal

Future Traffic Signal

Allowed Full Access Location

1" = 2000'

Village of Huntley  
 Illinois Route 47  
 Access Plan

6/23/2000



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. John Craig  
11620 Ballard Road  
Huntley, IL 60142

Dear Mr. Craig:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning turning lanes will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Mr. John Craig  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: John Craig  
Phone: (815) 338-3111  
Email: johncraig@pga.com

Address: 11620 Ballard Rd  
Huntley, IL 60142

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

This option would be preferred by our family since it does not have as much impact on our property, (the 3 homes on the west side of Route 47). We would, however, like to see a left turn of some kind which would allow northbound traffic to turn into Crystal Woods G.C.

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Dave Gieseke  
3217 East Terra Cotta Avenue  
Crystal Lake, IL 60014

Dear Mr. Gieseke:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47 (IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning access and bicycle accommodations will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Mr. Dave Grieseke  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis



IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: Dave Gieseke  
Phone: 847-774-9922  
Email: \_\_\_\_\_

Address: 3217 E. Texas Cottage Ave  
Crystal Lake, IL 60014

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

Need More Median Breaks  
No Bikes on Rt 47.

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

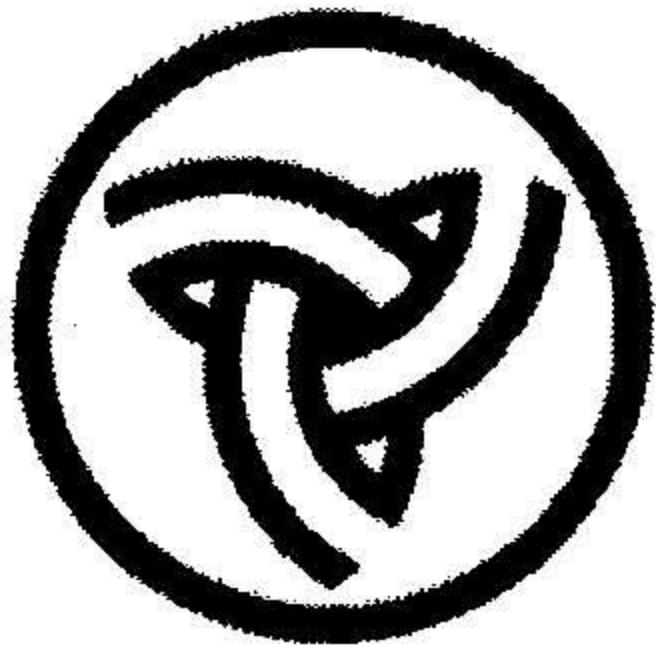
North End Comments

No Bikes on Rt 47.

Other Comments

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Ms. Darcie Gabrisko  
Vice President  
Strand Associates, Inc.  
1170S. Houbolt Road  
Joliet, IL 60431

Dear Ms. Gabrisko:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47 (IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning your preference to Option #2 will be considered as we develop and refine the preferred alternate. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Ms. Darcie Gabrisko  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: DARCI GAMBISIO  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Which South End Option do you prefer?

- South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.
- South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

Which North End Option do you prefer?

- North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.
- North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

NICE EXHIBITS



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Ms. Delores Swanson  
408 F St. Johns Road  
Woodstock, IL 60098

Dear Ms. Swanson:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. We will invite you to our next Stakeholder Workshop scheduled for spring 2010. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Ms. Delores Swanson  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name:

Dolores Swanson

Address:

408 F St Johns Rd

Phone:

815-526-2114

Woodstock IL

Email:

d.swanson@alden-hebron.org

60098

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

WANTS TO BE ON STATE HOLDING LIST  
LIVES AT PLEASANT VALLEY # IL 47

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Ms. Penny Wilkerson  
P.O Box 914  
8401 N. Route 47  
Huntley, IL 60142

Dear Ms. Wilkerson:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning property impacts and turning lanes will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.



Ms. Penny Wilkerson  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

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IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: Penny Wilkerson  
Phone: 847 669 5745  
Email: PennyJo65@aol.com

Address: PoBox 914  
8401 N. Rt 47  
Huntley IL 60142

Which South End Option do you prefer?

- South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.
- South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

I am Homeowner of 8401 N. Rt 47. House dates from 1920, All original Hardwood + Plaster in mint condition. Brick pillars + white cap tops line Rt 47. 4' concrete wall comes to edge <sup>along</sup> roadway right away. 1920 Dairy Barn, + shop serve Home to Huntley Honey + Taylor's Stump + Tree Service.

Which North End Option do you prefer?

- North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.
- North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments Conley Road at Rt 47, Travel speed 55+mph. Turn Lanes would be helpful. Look at current accident rates March 3, 2007 snow related. 35 emergency calls, December 2008, at Conley road death of Young Boy, up date your facts.



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Tim Kellog  
Templeton Property Consultants, Inc.  
7 Stonehill Road  
Oswego, IL 60543

Dear Mr. Kellog:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47 (IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning property impacts will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

As this planned improvement is not funded, all comments made by the Geometrics Unit and the Bureau of Traffic regarding future access to IL 47 and potential signalization of that access are still relevant and valid. It is unknown as to when this proposed improvement will receive funding.

Mr. Tim Kellog  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

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IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: Tim Kellogg  
 Phone: 630.364.0221  
 Email: tkellogg@templeton-pc.com

Address: TEMPLETON PROPERTY CONSULTANTS, INC  
7 STONEHILL RD  
OSWEGO, ILL 60543

Which South End Option do you prefer?

- |   |   |
|---|---|
| 7 | South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.                |
| - | South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176. |

South End Comments

AREA OF FOCUS: EAST SIDE OF RT. 47, ACROSS FROM EXISTING ACKMAN.  
 THERE DOES NOT APPEAR TO BE A DIFFERENCE BETWEEN THE ALTS. IN THIS AREA.  
 WIDE GRASS MEDIAN IS A SIGNIFICANT CHANGE FROM PREVIOUS IDOT GUIDANCE.  
 THIS AREA IS ZONED GENERAL COMMERCIAL & WONT BE RURAL IN NATURE.  
 ARE WE TO DISREGARD ALL PREVIOUS BUREAU OF TRAFFIC & PROGRAMMING  
 GEOMETRICS UNIT COMMENTS? PLEASE PROVIDE INFORMATION AS WHAT  
 COMMUNICATION SHOULD BE MADE AT THIS TIME & APPROPRIATE CONTACT.

Which North End Option do you prefer?

- |  |  |
|--|--|
|  | North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.   |
|  | North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway. |

North End Comments

Other Comments



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Joe Lewis  
1266 Sagebrush Trail  
Cary, IL 60013

Dear Mr. Lewis:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

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As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning bicycle accommodations will be considered as we develop and refine the preferred alternative. We will invite you to our next Stakeholder Workshop scheduled for spring 2010. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Mr. Joe Lewis  
March 15, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

S:\Gen\WP\p&es\CONSULT\CDL\IL 47 - US 14 to Reed\Public Meeting Info\Responses\PIM Reply Letter 2-22-10 rev per John Comments by MMM - Joe Lewis.docx

IL Route 47 (Reed Road to US Route 14)  
Public Meeting #2 Comments

Name: Joe Lewis  
Phone: 708 712 4630  
Email: SpotALoony@aol.com

Address: 1266 Sarebrish Trail  
Carly IL 60013

Which South End Option do you prefer?	
<input type="checkbox"/>	South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.
<input type="checkbox"/>	South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

--	--

Which North End Option do you prefer?	
<input type="checkbox"/>	North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.
<input checked="" type="checkbox"/>	North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

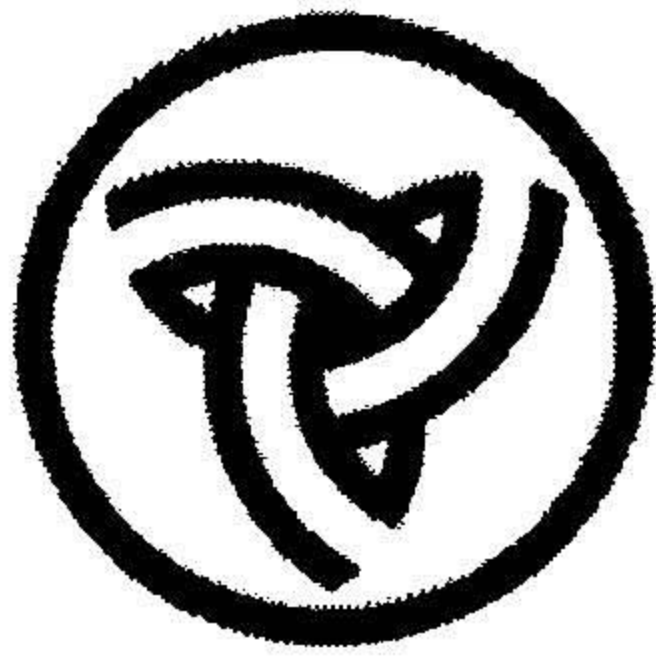
--	--

Other Comments

Our group, McHenry County Bicycle Advocates, would like to participate in the upcoming workshops. Please contact me. Thanks!	
--	--

Please send comments by December 11, 2009.  
For updated information about this project please visit [www.route47study.com](http://www.route47study.com).





# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Larry Piekos  
13315 Hickory Lane  
Woodstock, IL 60098

Dear Mr. Piekos:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning access will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

We will invite you to the next community Action Group meeting for the IL 47 from U.S. Route 14 to Charles Road proposed improvement and encourage you to visit the project website at [www.IL47woodstockstudy.com](http://www.IL47woodstockstudy.com) as it provides current project information. The site will be updated regularly throughout the study.

Mr. Larry Piekos  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

IL Route 47 (Reed Road to US Route 14)  
Public Meeting #2 Comments

Name: LARRY D. PIEKOS  
Phone: 815/338-4471 WK 338-6454  
Email: \_\_\_\_\_

Address: 13315 Hickory Lane  
Woodstock, IL  
60098

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

PROPERTY ADDRESS(S) 3109 S. RT 47 &  
VACANT LAND JUST NORTH OF 2 FACTORIES -  
INGRESS & EGRESS A CONCERN FOR FUTURE  
COMMERCIAL USE.

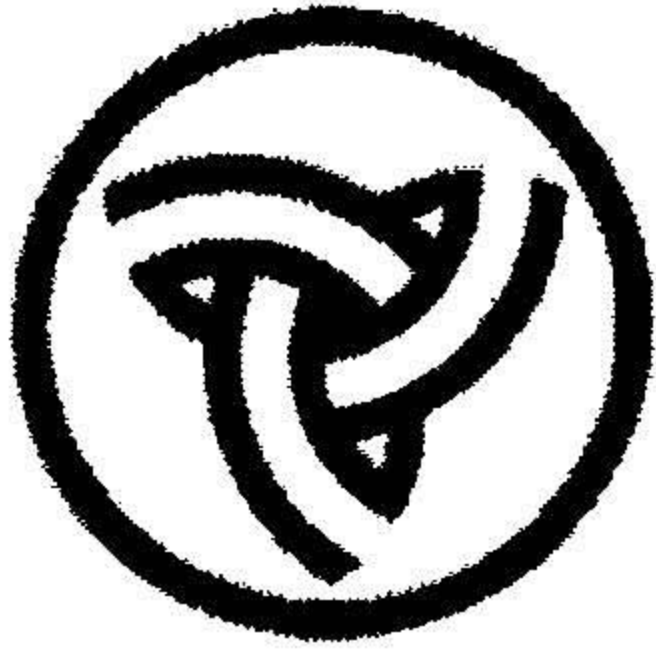
Other Comments

PLEASE LET US KNOW ABOUT STUDY ON 47  
NORTH OF RT 14 TOO. TH

THANKS

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Ms. Doreen Legenza  
11611 Hawthorne Way  
Huntley, IL 60142

Dear Ms. Legenza:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.

As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning pedestrian and bicycle accommodations will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Ms. Doreen Legenza  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

S:\Gen\WP\p&es\CONSULT\CDL\IL 47 - US 14 to Reed\Public Meeting Info\Responses\PIM Reply Letter 2-22-10 rev per John Comments by MMM - Doreen Legenza.docx

IL Route 47 (Reed Road to US Route 14)  
Public Meeting #2 Comments

Name: Doreen Legenza  
Phone: 847 669 6220  
Email: foropal33@sbccglobal.net

Address: 11611 Hawthorne way  
Huntley IL 60142

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments:

would like to see separate bike/walking path  
not bikes permitted on shoulder.

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

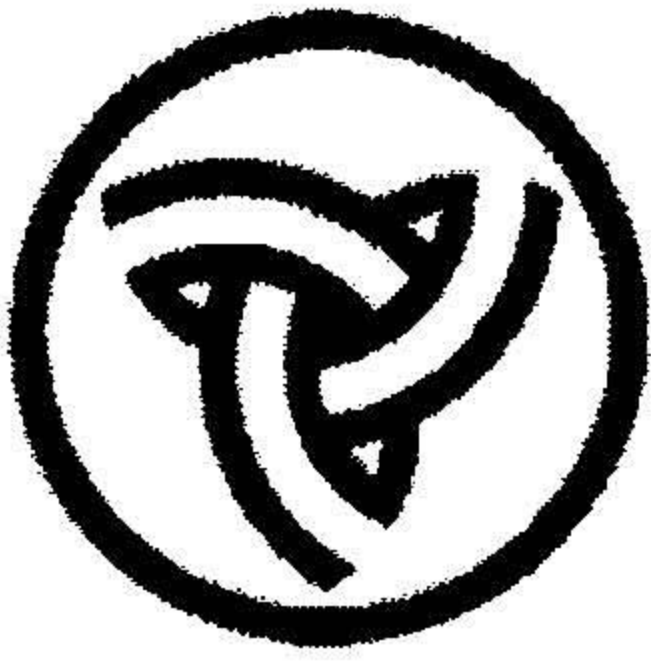
North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



# Illinois Department of Transportation

Division of Highways/Region One / District One  
201 West Center Court/Schaumburg, Illinois 60196-1096

Project and Environmental Studies  
Illinois Route 47 from Reed Road to U.S. Route 14  
McHenry County

March 16, 2010

Mr. Jerry Hutchinson  
9803 N. IL. Rte. 47  
Huntley, IL 60142

Dear Mr. Hutchinson:

We appreciate your attendance at Public Meeting #2 for the Illinois Department of Transportation's (IDOT) proposed improvement of Illinois Route 47(IL 47) from Reed Road to U.S. Route 14 (US 14) in McHenry County. From the beginning, stakeholder input has been an important aspect of this planning process. Thank you for the comments you submitted at the meeting.

On the basis of stakeholder input at the 1<sup>st</sup> Public Meeting and three (3) stakeholder workshops, we have developed a purpose and need for the project which is to provide an improved transportation system for IL47 from Reed Road to US 14 to address vehicular and pedestrian traffic safety, enhance traffic mobility, capacity, and efficiency, and facilitate planned economic growth, while minimizing impacts to the environmental resources along the route. We also have been working with stakeholders to begin identifying project elements to be considered in the potential alternatives. There is agreement on providing two lanes in each direction separated by a grassy median, consideration of providing shoulders along the roadway, and potential accommodations for bicyclist and pedestrians. To date, two alternatives have been developed which meet these criteria.


As a next step in the evaluation process, these alternatives will be screened based upon stakeholder input such as yours, initial construction costs, and environmental/social impacts. Your comment concerning access will be considered as we develop and refine the preferred alternative. We hope you continue to stay involved in this IL 47 project and encourage you to visit the project website at [www.Route47study.com](http://www.Route47study.com) as it provides current project information. The site will be updated regularly throughout the study.

Mr. Jerry Hutchinson  
March 16, 2010  
Page 2

If you have any questions or need additional information, please contact Mr. Marty Morse, Interim Project Manager, at (847) 705-4107.

Very truly yours,

Diane M. O'Keefe, P.E.  
Deputy Director of Highways,  
Region One Engineer

By:   
John A. Baczek, P.E.  
Project and Environmental Studies Section Chief

bcc: Joe Havel, AECOM  
Cary Lewis

S:\Gen\WP\p&es\CONSULT\CDL\IL 47 - US 14 to Reed\Public Meeting Info\Responses\PIM Reply Letter 2-22-10 rev per John Comments by MMM - Jerry Hutchinson.docx



IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: JERRY HUTCHISON  
Phone: 847-515-8012  
Email: \_\_\_\_\_

Address: 903 N. RT 47  
HUNTLEY, IL 60142

Which South End Option do you prefer?

South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.

South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

*We live across from Rainford Dr. We have problems getting into our drive. Making any change to our property would not be fair to us. Our trees make our property beautiful. This is a dangerous place to try to turn into our drive - we could not afford any change in road replacement.*

Which North End Option do you prefer?

North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.

North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).

IL Route 47 (Reed Road to US Route 14)

Public Meeting #2 Comments

Name: Madelynn Swanson

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: DLHswanson@verizon.net

Which South End Option do you prefer?

- South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.
- South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

South End Comments

Which North End Option do you prefer?

- North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.
- North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments

Other Comments

thanks for putting up with me!

Please send comments by December 11, 2009.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).

# IL Route 47 (Reed Road to US Route 14)

## Public Meeting #2 Comments

Name: Hunter Swanson  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

Address: 815-784-588-9  
742 E Main  
GEORGETOWN

Which South End Option do you prefer?

- South End Option #1 - 42 foot wide median and 2 lanes each direction centered on existing roadway.
- South End Option #2 - 42 foot wide median and 2 lanes each direction shifted east from Ackman Rd to IL Route 176.

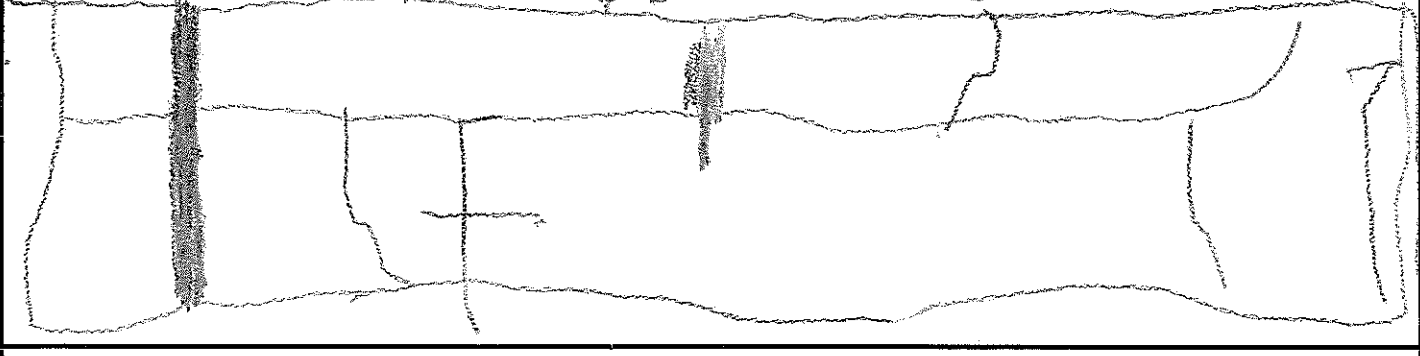
South End Comments

\_\_\_\_\_

Which North End Option do you prefer?

- North End Option #1 - 22 foot wide median, shoulders, and sidewalk on both sides of roadway.
- North End Option #2 - 16 foot wide median, no shoulders, sidewalk on one side of roadway, and bicycle path on other side of roadway.

North End Comments The maps are cool!



Other Comments

\_\_\_\_\_

**Public Meeting #1**

**September 30, 2008**

CTE  
 303 East Wacker Drive, Suite 600, Chicago, IL 60601-5276  
 T 312.938.0300 F 312.938-1109 www.cte.aecom.com

## Attendance Sign-in Sheet

Subject: Illinois Route 47 Sign In Sheet

Meeting Date: September 30, 2008

Location: Chesak School

NAME	REPRESENTING	ADDRESS	EMAIL
Tom Harding	Harding Real Estate	1710 S. Rt. 47, Eastbrook Woodstock, IL 60098	stona@hardingrealty.com
Vic Hyer	V.H.T.	261 Poplar St Woodstock, IL	BEVERLY@VHT.COM
Felix Ruff	ALLIANCE CONTRACTORS	1166 Lake Ave. WOODSTOCK, IL 60098	ERUTH@ALLIANCECONTRACTORS.COM
John Craig	Crystal Woods Golf	5915 S. Rt. 47	Johncraig@ppga.com
John Esbelle	Woodstock	326 Washington Woodstock, IL	Jesbelle@woodstockil.gov
Jack Freund	Huntley	1050 S Candy Jo Ave	
Mr. & Mrs Richard Craig	Crystal Woods Golf	611 S. Rt. 47 - W.D. STK	

CTE  
 303 East Wacker Drive, Suite 600, Chicago, IL 60601-5276  
 T 312.938.0300 F 312.938-1109 www.cte.aecom.com

### Attendance Sign-in Sheet

**Subject:** Illinois Route 47 Sign In Sheet

**Meeting Date:** September 30, 2008

**Location:** Chesak School

NAME	REPRESENTING	ADDRESS	EMAIL
Tim Kellogg	TEMPERON PROJECT CONSULTANTS	7 STANGHILL RD OSWEGO, IL 60543	TKellogg@ TEMPERON-PC.COM
Kathleen Jensen		7090 KY 47 HEENTREE, IL	
Chalen Dasha	McHenry COM	1011 WELSH RD WOODSTOCK, IL	cldasha@co.mchenry.il.us
Gene Jones	McHenry	11317 BALLARD WOODSTOCK, IL	
Mary Tempel	McHenry	1305 COLL SPRING - HEENTREE, IL	
Andy Handissey	MYSELF	451 WRIGHT DR. E.T.H.	
Dan Fox	Nicor Gas	1844 Ferry Rd Naperville	D.Fox@nicor.com

CTE  
 303 East Wacker Drive, Suite 600, Chicago, IL 60601-5276  
 T 312.938.0300 F 312.938-1109 www.cte.aecom.com

### Attendance Sign-in Sheet

Subject: Illinois Route 47 Sign In Sheet

Meeting Date: September 30, 2008

Location: Chesak School

NAME	REPRESENTING	ADDRESS	EMAIL
Kristine Brown	Woodstock	2445 S Eastwood DR	CZIJUNG@aol.com
Wally Ditrin	McHenry County DOT	1611 Nelson Rd Waukegan IL	wrditt@rich@cam.mchenry.il.us
Chuck SASS	Univ. of Huntley		C.SASS@Huntley.il.us
William Geegan	Village of Huntley	115 Keweenaw Drive Huntley IL	wgeegan@huntley.il.us
Bob SIMPSON	CENTRAL LAKE		
JERAL + MARLA KURTZ	WOODSTOCK	6010 HALIUS	JOHN.KURTZ@MCMASTER.IL
Dave Gieseke		3217 E. Starwood Ave	
Joe McKeown	IL DEEG	JRTC. C.C.	joseph.mckeown@illinois.gov
	State Representative		
	WOODSTOCK	3014 S. IRT 47	SUSWEN3@Comcast.net
	Huntley	60302 Ridge View Dr	BW136@hotmail.com





DISPOSITION OF EMAIL COMMENTS  
PUBLIC HEARING 1 – CHESAK ELEMENTARY SCHOOL (SEPTEMBER 30, 2008)

**Comment: Does the proposed improvement of Route 47 include the expansion of Route 47 to four lanes?**

**Response:** In regard to your concern about the number of lanes Route 47 may be expanded to, we would like to reiterate that the project study will follow the Context Sensitive Solutions (CSS) approach which involves stakeholders early and often in the development of a solution. Stakeholder input as well as the input of public agencies will evaluate the project considerations and develop concept alternatives. The purpose of CSS is to gather and duly consider input on the project from all stakeholders, in order to produce the best solutions to any problems identified by the process. Stakeholder meetings will be held to help determine the number of lanes that should be added to Route 47 and other detail design features. Details of all upcoming conferences, seminars, and workshops are posted on the project website ([www.Route47Study.com](http://www.Route47Study.com)). We will be in contact with you as we progress with the study.

**Comment: I will be the primary contact for the City of Woodstock for this project**

**Response:** In regard to your interest about being the primary contact for the City of Woodstock for this project, we would like to thank you and verify that you have been added to our project stakeholder list. The project study will follow the Context Sensitive Solutions (CSS) approach which involves stakeholders early and often in the development of a solution. Stakeholder input as well as the input of public agencies will evaluate the project considerations and develop concept alternatives. The purpose of CSS is to gather and duly consider input on the project from all stakeholders, in order to produce the best solutions to any problems identified by the process. Stakeholder meetings will be held to help determine detail design features of the project. Details of all upcoming conferences, seminars, and workshops are posted on the project website ([www.Route47Study.com](http://www.Route47Study.com)). We will be in contact with you as we progress with the study.

## Belle, Roxann

---

**From:** webadmin@route47study.com  
**Posted At:** Thursday, October 02, 2008 2:33 PM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** IL-47 Comment

### Contact Request

**Name:** Thomas P. Sullivan  
**Email:** TSullivan@jenner.com  
**Occupation:** lawyer  
**Company:**  
**Address:** 1529 Greenwood Avenue  
**City:** Wilmette  
**State:** IL  
**Zipcode:** 60091  
**Telephone:** 847 256-7539  
**Newsletter:** Yes  
**Stakeholder:** Yes  
**Comments:** Does the proposed improvement of Route 47 include the expansion of Route 47 to four lanes? TPS

**Belle, Roxann**

---

**From:** webadmin@route47study.com  
**Posted At:** Wednesday, October 01, 2008 8:24 AM  
**Conversation:** IL-47 Comment  
**Posted To:** IL47 - IDOT  
**Subject:** IL-47 Comment

Contact Request

**Name:** John Isbell  
**Email:** jisbell@woodstockil.gov  
**Occupation:** Civil Engineer  
**Company:** City of Woodstock  
**Address:** 326 Washington Street  
**City:** Woodstock  
**State:** IL  
**Zipcode:** 60098  
**Telephone:** 815-338-6118  
**Newsletter:** Yes  
**Stakeholder:** Yes  
**Comments:** I will be the primary contact for the City of Woodstock for this project.

Name: ERIC ROTH  
Address: 12415 N. LAKEVIEW DR.  
HUNTLEY, IL 60142

Illinois Route 47 Study  
Reed Road to US-14

**Community Questionnaire**

What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

**Comments:**

What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

**Comments:**

What would you like to see preserved along IL-47?

**Comments:**

What would you like to see added along IL-47?

Comments:

BIKEPATHS CONNECTING WOODSTOCK & HUNTSLEY. MORE IMPORTANTLY  
KEEPING BIKES OFF THE ROADS.

What would you like to see modified or removed along IL-47?

Comments:

What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comments:

What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

Comments:

What potential dangers exist on this route?

Comments:

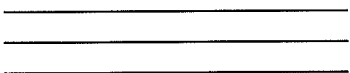
Other Comments:

Would you like to join stakeholder meetings? **YES**  
*If so, be sure to include your name, mailing address, and email address on this questionnaire.*

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).

Fold Here. Tape along edges and mail with postage.

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Place  
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Illinois Department of Transportation  
Attn: Marty Morse, Interim Project Manager  
201 West Center Court  
Schaumburg, IL 60196

Name: Tom Harding  
Address: Box 340  
Woodstock, IL 60098

Illinois Route 47 Study  
Reed Road to US-14

Community Questionnaire

What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

Comments:

Commercial Centers

What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

Comments:

traffic safety

What would you like to see preserved along IL-47?

Comments:

preserve existing right-of-way location  
but add 2/3 additional lanes  
construct as soon as possible!



What would you like to see added along IL-47?

Comments:

2/3 additional lanes to handle extra traffic ~~to~~  
current + proposed

What would you like to see modified or removed along IL-47?

Comments:

widening of right-of-way very important

What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comments:

local + long distance travel

What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

Comments:

CAR only

What potential dangers exist on this route?

Comments:

very heavy traffic congestion

Other Comments:

Thomas D. Harding  
1710 S. Eastwood Dr., (Bl. 47) Box 340  
Woodstock, IL, 60098  
tom@hardingrealestate.com (all lower case)

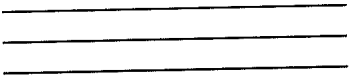
Would you like to join stakeholder meetings? *yes*

If so, be sure to include your name, mailing address, and email address on this questionnaire.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).

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Illinois Department of Transportation  
Attn: Marty Morse, Interim Project Manager  
201 West Center Court  
Schaumburg, IL 60196

DISPOSITION OF QUESTIONNAIRE COMMENTS  
PUBLIC HEARING 1 – CHESAK ELEMENTARY SCHOOL (SEPTEMBER 30, 2008)

Question: What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

Comment:  
**Tom Harding** Commercial Centers

**Betty Miller** We have almost all of the above in this area. We should maintain all also.

---

Question: What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

Comment:  
**Tom Harding** Traffic Safety

**Betty Miller** Few if any exist in this span of road. Traffic safety between So. Union Road & 176 exists, entrances, should be addressed. Ballard & 47 are very dangerous.

---

Question: What would you like to see preserved along IL-47?

Comment:  
**Tom Harding** Preserve existing right-of-way location but add 2/3 additional lanes construct as soon as possible!

**Betty Miller** The countryside & the 55 mph with few lights (stop) between Huntley & 14.

**Erik Ruth** Bikepaths connecting Woodstock & Huntley. & more importantly keeping bikes of the roads.

---

Question: What would you like to see added along IL-47?

Comment:  
**Tom Harding** 2/3 additional lanes to handle extra traffic current & proposed.

**Betty Miller** Exit lanes for the busiest road. So. Union, Ballard, Pleasant Valley, Lucas, etc.

DISPOSITION OF QUESTIONNAIRE COMMENTS  
PUBLIC HEARING 1 – CHESAK ELEMENTARY SCHOOL (SEPTEMBER 30, 2008)

Question: What would you like to see modified or removed along IL-47?

Comment:

**Tom Harding** Widening of right-of-way very important.

**Betty Miller** BILLBOARDS

---

Question: What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comment:

**Tom Harding** Local & long distance travel.

**Betty Miller** Local & Wisconsin travel. South to expressway & good weather St. Charles, Geneva and as I go there at least 8 times a month.

---

Question: What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

Comment:

**Tom Harding** Car only.

**Betty Miller** Auto only.

---

Question: What potential dangers exist on this route?

Comment:

**Tom Harding** Very heavy traffic congestion.

**Betty Miller** Wildlife (deer) farmers mowing equipment between fields in spring & fall.

---

Question: Other Comments:

Comments:

**Tom Harding** **Thomas D. Harding**  
1710 S. Eastwood Dr., (Rt. 47) Box 340  
Woodstock, IL 60098  
[tom@hardingrealestate.com](mailto:tom@hardingrealestate.com) (all lower case)

**Unidentified** Make sure to include Lakewood. They want to annex up to IL-47 for commercial.

DISPOSITION OF QUESTIONNAIRE COMMENTS  
PUBLIC HEARING 1 – CHESAK ELEMENTARY SCHOOL (SEPTEMBER 30, 2008)

Question: Would you like to join stakeholder meetings?

Comments:

**Tom Harding** Yes

**Betty Miller** Yes

**Erik Ruth** Yes

Name: Tom Harding  
Address: Box 340  
Woodstock, IL 60098

Illinois Route 47 Study  
Reed Road to US-14

Community Questionnaire

What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

Comments:

Commercial Centers

What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

Comments:

traffic safety

What would you like to see preserved along IL-47?

Comments:

preserve existing right-of-way location  
but add 2/3 additional lanes  
construct as soon as possible!

NO WRITER RESPONSE

What would you like to see added along IL-47?

Comments:

2/3 additional lanes to handle extra traffic ~~to~~  
current + proposed

What would you like to see modified or removed along IL-47?

Comments:

widening of right-of-way very important

What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comments:

local + long distance travel



What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

Comments:

CAR only

What potential dangers exist on this route?

Comments:

very heavy traffic congestion

Other Comments:

Thomas D. Harding  
1710 S. Eastwood Dr., (Ex. 47) Box 340  
Woodstock, IL, 60098  
tom@hardingrealestate.com (all lower case)

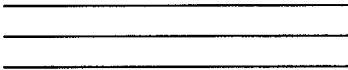
Would you like to join stakeholder meetings? *yes*

If so, be sure to include your name, mailing address, and email address on this questionnaire.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).

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Attn: Marty Morse, Interim Project Manager  
201 West Center Court  
Schaumburg, IL 60196

W. Miller  
11/10/08

Name:  
Address:



Ms. Betty Jane Miller  
11317 Ballard Rd.  
Woodstock, IL 60098-7611

CRAY  
LEWIS

Illinois Route 47 Study  
Road Road to US 14

Community Questionnaire

What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

Comments: We have almost all of the above in this area. We should maintain also.

BUREAU OF PROGRAMMING  
RECEIVED

OCT 15 2008

DISTRICT #1

What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

Comments: Few if any exist in this span of road. Traffic safety between So. Union Road & 176 ~~Exits~~ exits, entrances, should be addressed. Ballard & 47 are very dangerous.

What would you like to see preserved along IL-47?

Comments: The countryside & the 55 mph with few lights (stop) between Huntley & 14.

What would you like to see added along IL-47?

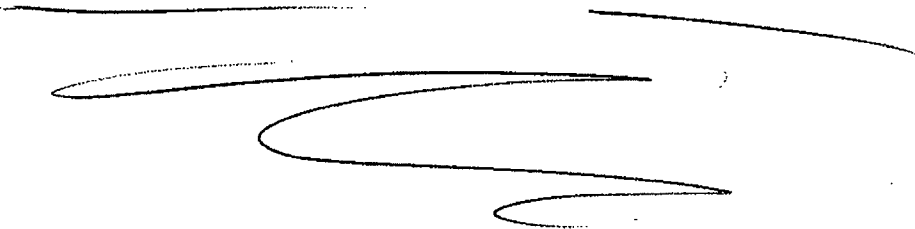
Comments:

exit lanes for the  
bussert roads, St. Union, Ballard  
Pleasant Valley, Lucas etc.

What would you like to see modified or removed along IL-47?

Comments:

BILL BOARDS



What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comments:

Local Wisconsin travel  
South to expressway & good weather  
St. Charles, Geneva area as I  
go thru at least 8 times a  
month.

What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

Comments:

*Auto only*

What potential dangers exist on this route?

Comments:

*Wildlife (deer) farmers moving equipment between fields in spring & fall.*

Other Comments:

Would you like to join stakeholder meetings?

*yes*  
If so, be sure to include your name, mailing address, and email address on this questionnaire.

For updated information about this project please visit [www.route47study.com](http://www.route47study.com).



Name: ERIC ROTH  
Address: 12415 N. LAKEVIEW DR.  
HUNTLEY, IL 60142

Illinois Route 47 Study  
Reed Road to US-14

**Community Questionnaire**

What community characteristics are most important to you in this area (e.g. commercial centers, creeks, wetlands, agricultural areas, industrial centers, residential areas, architectural features, multi-modal transportation, etc.)?

**Comments:**

What amenities are present along IL-47 and how important are they to you (e.g. neighborhood parks, open space, benches, trash containers, street trees, landscaping, community safety issues, traffic safety, etc.)?

**Comments:**

What would you like to see preserved along IL-47?

**Comments:**

No written response

What would you like to see added along IL-47?

Comments:

BIKEPATHS CONNECTING WOODSTOCK & HUNTSLEY - MORE IMPORTANTLY  
KEEPING BIKES OFF THE ROADS.

What would you like to see modified or removed along IL-47?

Comments:

What do you use this route for (i.e. local travel, long distance travel, biking, etc.)?

Comments:

What mode of transportation do you use to travel along this route (i.e. car, bus, bike, etc.)?

**Comments:**

What potential dangers exist on this route?

**Comments:**

**Other Comments:**

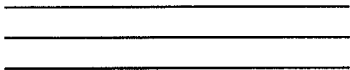
Would you like to join stakeholder meetings? **YES**  
*If so, be sure to include your name, mailing address, and email address on this questionnaire.*

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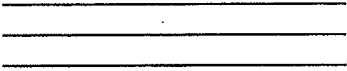


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201 West Center Court  
Schaumburg, IL 60196

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NO WRITTEN RESPONSE