

ERRATA

Illinois Route 47 (Reed Road to U.S. Route 14) McHenry County, Illinois

Job No. P-91-101-07

August 10, 2016

This Erratum includes corrections, revisions, and/or additions to the Environmental Assessment (EA), October 2014, for the proposed project for Illinois Route 47 (Reed Road to U.S. Route 14) in the McHenry County, Illinois. The Environmental Assessment was approved for public release by the Federal Highway Administration on October 1, 2014. Corrections, revisions, and/or additions are shown in *italics*.

Chapter 2 Purpose and Need

Replace Figure 2-5 with the attached revised Figure 2-5.

Chapter 4 Environmental Resources, Impacts, and Mitigation

4.2.2 Protected Agricultural Areas

Retitle sub-section "4.2.2 Protected Agricultural Areas" as "**4.2.2 Conservation Reserve Program**".

Delete the sub-title "*Conservation Reserve Program*".

Chapter 4.5 Noise

A sensitivity analysis was conducted with the new projected Build 2040 traffic data as shown in the revised Figure 2-5. There were still three CNEs for the Build improvement that were determined to approach, meet, or exceed the FHWA Noise Abatement Criteria, and warranted consideration of traffic noise abatement. Of those three, only one (CNE 16) remained viable since receptors for the other two CNEs will be acquired based on preliminary engineering and right-of-way requirements. CNE 16 was previously considered and evaluated for traffic noise abatement. Although it met the Feasibility criterion, it did not stand the test of reasonableness for the Noise Reduction Design Goal and Cost Effectiveness criterion. Therefore, the conclusion that highway traffic noise abatement measures are not likely to be implemented for the proposed IL 47 preliminary engineering design is still valid.

4.6.1 Upland Plant Communities

Page 65. Insert after the last paragraph of this item.

"Approximately 600 trees would be impacted by the Preferred Alternative. Mitigation for impacts to trees would follow IDOT's tree replacement policy (IDOT Policy D&E 18 "Preservation and Replacement of Trees"). None of the trees to be removed are associated with forests; they are

generally located along fence lines, agricultural fields and linear streams or are considered landscape trees.”

4.6.2.2 Wildlife Present in Project Corridor

Page 70. Insert after the first paragraph of this item.

“Habitat for some rare and uncommon species is present near the project corridor. However, as described in Section 4.6.3.1, it was determined that habitat for the federally-listed threatened or endangered species known occur within McHenry County is not present within or adjacent to the project corridor. Table 4-9 in the EA describes the habitats preferences of these species.

Section 4.6.3.2 contains detailed information on the state-listed threatened or endangered species and Table 4-10 presents the habitat preferences of state-listed threatened or endangered species. Only one state threatened species (Iowa Darter) was found, although other fish are known to exist within the Kishwaukee watershed. Other state-listed threatened or endangered species occur within the vicinity of the project corridor.”

4.6.2.3 Wildlife and Habitat in Project Corridor

Page 70. Insert the following discussion after the first sentence.

“Impacts to the habitat of the Iowa Darter, the only state threatened or endangered species found in the project corridor are described in Section 4.6.3.2. The preferred habitats of the other federally or state-listed threatened or endangered species described in Table 4-9 and Table 4-10 are not located adjacent to the proposed improvements and will not be directly impacted.”

Page 70, *Riparian Habitat*. Replace “Because the proposed improvements would result in a minimal amount of impacts to riparian habitat, it is not anticipated that measureable impacts would occur to any species utilizing this habitat.” with “*Previous landscape changes and impacts to local habitats unrelated to this project have occurred. Remnant habitats along the corridor as well as preserved habitats and open spaces by local agencies provide important refuges for local wildlife populations. For example, the McHenry County Conservation District holds over 16,000 acres in the County with over 2,200 acres in the Kishwaukee Headwaters and Pleasant Valley sites near the IL 47 corridor. In order to help minimize impacts to wildlife travel along riparian corridors, the proposed roadway design will provide small mammal as well as reptile/amphibian crossings which have been described in the Section 4.6.2.4.*”

4.6.2.4 Vehicle/Wildlife Crashes in Project Corridor

Page 72. Insert at the end of the second paragraph.

“The FHWA’s Wildlife Crossing Structure Handbook, Design and Evaluation in North America (FHWA-CFL/TD-11-003 March 2011) will be used when designing the crossings. Fencing or low profile barriers will be used whenever practical to help guide the animals towards the crossing locations.

Page 72. Insert at the end of the 2nd paragraph. “Design efforts to guide animals towards the crossing locations will be evaluated during Phase II. For example, channeling turtles to a

crossing by using a turtle fence or high curb along the side of the road and then directed to the culvert opening will be considered in the final design process.

Page 73. Table 4-8 Potential Wildlife Crossings. An additional location for a potential wildlife crossing is recommended near Wetland 46. Add the following row of information as row #8 to Table 4-8 Potential Wildlife Crossings:

Location	Description	Wildlife Crossing
0.75 miles south of Lucas Rd	Culvert should be designed to promote amphibian and small mammal crossings.	Wildlife crossing can be placed adjacent to culvert.

Page 73, Table 4-8 Potential Wildlife Crossings, 1st column, 3rd row. Replace “100 feet south of Conley Road” with “100 feet north of Conley Road”.

4.6.3.1 Federally Listed Species

Page 74. Revise the “Status” column in Table 4-9 for the northern long-eared bat to indicate the species is now listed as Threatened.

Page 74. Insert after the last paragraph of this Section.

“IDOT and the FHWA met with the USACE, USFWS, and the USEPA on June 8, 2015 to discuss the potential additional environmental surveys to identify the presence of the Eastern prairie fringed orchid (Platanthaera leucophaea) (EPFO), a federally listed endangered species, within the project corridor. Wetland surveys conducted in 2009, 2011 and 2013 for the project did not identify any wetlands that met the EPFO survey criteria. In response to agency comments that the quality toward the edge of a wetland may be different than toward the center of a wetland, additional wetland surveys were conducted in May 2015 by INHS. Based on this additional data, there were three wetland locations (34, 40, and 58/59) that met the USFWS EPFO criteria which are based on FQI, C-value, and associated plant species for EPFO habitat. Wetlands 34 and 40 were outside of the project limits, so it was agreed that only wetlands 58/59 would be surveyed for the EPFO. The INHS Botanical Survey Report dated October 2015, with field surveys from June and July of 2015, documented that no EPFOs were found at these wetland sites.

The northern long-eared bat (Myotis septentrionalis) (NLEB) was Federally-listed as Threatened on April 2, 2015. A “may affect, not likely to adversely affect” determination has been made for the NLEB. To conserve the species, tree removal will be restricted from April 1 to September 30.”

4.6.3.2 State-Listed Species

Page 75. Insert after the last paragraph of this item.

“IDOT conducted Blanding’s turtle surveys in summer of 2015. The INHS Aquatic Survey Report dated 17 August 2015, with field surveys from June 2015, documented that no Blanding’s turtles were found to be present along the corridor.”

4.7.1 Water Resources

Page 79. Insert after the sixth paragraph of this item.

“Efforts will be made to investigate in-kind stream mitigation for impacts to the streams from the proposed improvements. Further discussions and coordination on stream mitigation would occur during the permitting process.”

4.7.1 Water Resources

Page 80. Table 4-11 Streams and Ponds in Project Corridor. Replace the table with the updated Table 4-11, attached to this Erratum, which includes additional columns on the type of stream impact and a reference indicating the location of the impact on the Exhibit 4-1 Environmental Constraints.

Page 80. Table 4-11 Streams and Ponds in Project Corridor, Column 1, all rows. *Insert “W” before each INHS number.* An updated Table 4-11 is attached to this Erratum.

Page 82. Insert after the first paragraph on this page.

“The Kishwaukee River is a medium priority impaired waterway. The designated use impairments are fish consumption and aquatic life with the causes of the impairments listed as mercury/PCBs and dissolved oxygen/sedimentation/siltation respectively. The BMPs proposed as part of the project are intended to reduce these types of contaminants and further impairments are not expected as a result of project implementation.

As this project moves into the design phase and eventually permitting, efforts to minimize contaminated run-off will be identified during the 401/404 water quality certification process.”

4.7.2 Generalized Impacts

Page 84, Operational Impacts, fifth paragraph. After first sentence add *“The BMPs and compensatory storage included as part of the project initially capture 0.31 inches of the first flush capture rate. A letter from USACE on April 21, 2014 requested that the 1-inch of the first flush of rainfall and 1.25-inches for areas with high-quality aquatic resources (HQARs) be captured for the proposed improvements. In a meeting with USACE on October 14, 2014 as well as the IDOT response letter from March 2, 2015; IDOT was able to include additional BMPs and increases to the compensatory storage which raised the average first flush capture rate 0.94 inches for the project area. Following this coordination, further refinement of the compensatory storage and BMPs, an average first flush capture of 1.20 inches was achieved for the project (see Table 4-11a). The 1.25-inch first flush capture for High Quality Aquatic Resources (HQARs) was met at both Kishwaukee River crossings. There was only one watershed outlet (#7) where the 1.0-inch capture rate could not be achieved. This location includes many conflicts with existing wetlands and floodplains which made it prohibitive to provide additional infiltration storage to capture the first flush. Exhibit 4-1 shows the location of the additional BMPs. The correspondence and meeting minutes are included in [Appendix A \(Agency Coordination\)](#).”*

Table 4-11a: First Flush Capture Rate Analysis

FIRST FLUSH STORAGE – IL ROUTE 47					Original Design		Design Revised per USACE Comments	
Watershed Outlet		Stations		Added Impervious	Total Storage	Average First Flush Capture	Total Storage	Average First Flush Capture
		From	To	(AC)	(AC-FT)	(IN)	(AC-FT)	(IN)
4	Tributary to Kishwaukee Creek	362+58	422+70	4.81	0.19	0.48	0.50	1.24
7	Kishwaukee Creek	422+70	494+00	8.17	0.30	0.44	0.49	0.72
15	Kishwaukee River*	494+00	568+00	9.32	0.13	0.17	1.12	1.45
21B	Kishwaukee River Tributary	568+00	691+50	20.94	0.74	0.42	1.90	1.09
32	Kishwaukee River*	691+50	773+00	6.76	0.15	0.27	0.97	1.73
Totals or Average				50.00	1.52	0.36	4.99	1.20

*HQAR

4.7.2 Construction Impacts

Page 82. Construction Impacts, last paragraph. Insert after the first sentence of this item. *“Prior to construction, all required permits and approvals will be obtained. Construction staging locations will be identified as part of the permit application.”*

4.10 Wetlands

Page 92. Table 4-13 Wetlands in the Project Corridor. Delete 10th column titled “USACE Jurisdictional”.

Page 97. Impacts, 1st paragraph. Replace “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.” with *“The proposed improvements will impact a total of 25.63 acres of wetland. A jurisdictional determination by the USACE will need to be conducted to verify the status of the wetlands impacted by the Preferred Alternative.”*

Page 97. Impacts, 1st paragraph. Add *“For the purpose of this EA, the wetlands located within the proposed ROW limits were considered as impacted and are a worst-case scenario. As the project moves into the design phase, further wetland avoidance and impact minimization efforts will occur. Additionally, installed BMPs should not be placed in remaining wetlands to the extent practical.”*

Page 97. Impacts, 3rd paragraph. Replace “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.” with *“Table 4-14 summarizes the wetland impacts, 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. Mitigation acreages were based upon the Interagency Wetland Protection Act.”*

Page 97. Table 4-14 Wetland Impacts. Delete 8th column titled "USACE Jurisdictional". An updated table is at the end of this Erratum.

Page 100. Avoidance/Minimization/Compensatory Mitigation. Add as the second paragraph *"Other efforts to minimize wetland impacts were evaluated. Retaining walls and steeper side slopes were considered to reduce impacts along the entire route. In many locations the cost of the retaining walls was prohibitive resulting in the proposed structure to not be practicable. In particular, larger wetland complexes such as Wetlands 12 through 19 near Foster/Union Road were evaluated for retaining wall installation; however, due to the poor soils (Houghton muck) the structural stability of retaining walls was determined to not be feasible. Other similar locations such as the roadway segment north of the IL176 intersection to the City of Woodstock near Willowbrooke Drive also contain Houghton muck and retaining walls were not feasible. Other locations were evaluated to use steeper side slopes, but safety, drainage or multi-use path concerns did not allow for appreciative wetland reductions. These locations will be considered again during Phase II design."*

Page 97. Table 4-14 Wetland Impacts, 9th column, 9th row. The acreage of impact for Wetland #8 to be changed from "0.25 acres" to "0.36 acres". An updated table is at the end of this Erratum.

Insert as Section 4.16 Indirect and Cumulative Impacts.

"4.16 Indirect and Cumulative Impacts."

The project will likely facilitate future land use conversion from generally agricultural to developed lands. A component of the Purpose and Need for the improvements to IL 47 was to facilitate economic development. This desire by the local communities was also documented in the various workshops and public involvement events. Section 4.1.9 of the EA describes the local zoning and comprehensive plans designation of the corridor for commercial and residential development. As such, the local communities are planning for and anticipating some level of development along the corridor. Conservation of natural resources as well as floodplains for the individual development proposals must be considered during those future project designs. The following is a discussion of indirect and cumulative impacts individual environmental resources.

Social, Economic, and Community

The communities along the corridor have tools in place, such as zoning, comprehensive plans, to guide and facilitate the future developments. Planned economic growth is a component of the Purpose and Need and therefore future social, economic, or community indirect and cumulative impacts are not anticipated.

Agriculture

The project will likely facilitate future agricultural land use conversion to developed lands. As discussed in Section 4.1.9 the local zoning and comprehensive plans designate the corridor for commercial and residential development. Therefore the land use conversions are already planned for and anticipated by the local government bodies.

Cultural

No historic bridges, buildings, or Districts are present along the corridor and no known archaeological sites exist along the corridor; therefore no indirect or cumulative impacts are anticipated to these resources. However, if future development requires a Section 404 permit,

the permitting process requires clearance for cultural resources. Therefore, those resources (for projects requiring a Section 404 permit) would be identified and addressed at that time.

Air Quality

Future development along the corridor is anticipated, which will result in more automobile use along the project corridor. However, these increases were planned for and included in the FY 2010-2015 Transportation Improvement Plan and endorsed by the Metropolitan Planning Organization Policy Committee of CMAP and consistent with the GO T0 2040 Plan (the regional transportation plan). The project conformed with the State Implementation Plan and clean air requirements of the 1990 Clean Air Act.

Noise

Traffic generated noise is expected to increase under the IL 47 preferred alternative. The direct noise impacts from this project are discussed in Section 4.5 of the EA. Although future traffic noise levels generally increase, no noise attenuation is anticipated. Also, as future land development occurs, ambient noise levels are anticipated to increase.

Natural resources and Threatened or Endangered Species

Potential impacts to the remaining habitats may occur from future development along the project corridor. No federally listed species are known to be present along the IL 47 corridor. Therefore, it is unlikely that implementation of this project would result in indirect or cumulative impacts to federally listed species. However, in order to help minimize indirect impacts to local wildlife, connectivity along riparian corridors may be maintained by providing small mammal as well as reptile/amphibian crossings.

Regarding wildlife habitat, a description of available habitats and species that utilize them is provided in Section 4.6.2.3 of the EA. Future development may reduce these remaining habitats or the availability of these habitats to the species that use them. The design process of any development is expected to include consideration of natural resources on the development site, which should result in minimal cumulative impacts to natural resources.

Water Resources and Aquatic Habitats

Future development would have the potential to impact Waters of the U.S. The extent of resources affected directly due to the cumulative effect of potential future development in the project corridor. These developments will be subject to local requirements such as the McHenry County Stormwater Management Ordinance and local municipality restrictions and guidance which include buffer recommendations, acceptable water quality treatment methodologies and BMP considerations. Also, the USACE Section 404 regulations will apply to any developments affecting wetlands or Waters of the U.S. Therefore, indirect and cumulative impacts to wetlands are expected to be minimal. Indirect impacts to these resources are expected to be minimal due to the inclusion of BMPs with this project.

Groundwater Resources

This project may make the land adjacent to it more attractive to development, which will be subject to local requirements such as the McHenry County Stormwater Management Ordinance and local municipality restrictions and guidance. The regulations that would apply to these future developments would require them to consider the implementation of BMPs to improve first-flush capture rates and reduce the contaminant loads prior to stormwater percolating through the soil and into the groundwater. Therefore, indirect and cumulative impacts to groundwater resources

are expected to be minimal. Indirect impacts to groundwater resources are expected to be minimal due to the inclusion of BMPs with this project.

Floodplains

Future development along the corridor will be subject to State and local requirements such as the Illinois Department of Natural Resources – Office of Water Resources, McHenry County Stormwater Management Ordinance and local municipality restrictions and guidance in order to provide adequate compensatory storage and detention. Therefore, indirect and cumulative impacts to floodplains are expected to be minimal due to the inclusion of BMPs with this project.

Wetlands

Future development would have the potential to impact wetlands and to create additional edge effects at the perimeter of the wetland resources. The extent of resources affected directly and by the edge effect could continue to move inward due to the cumulative effect of potential future development in the project corridor. These developments will be subject to local requirements such as the McHenry County Stormwater Management Ordinance and local municipality restrictions and guidance which include buffer recommendations, acceptable water quality treatment methodologies and BMP considerations. Also, the USACE Section 404 regulations will apply to any developments affecting wetlands or Waters of the U.S. Therefore, cumulative impacts to wetlands are expected to be minimal. Indirect impacts to these resources are expected to be minimal due to the inclusion of BMPs with this project. However, indirect impacts for edge effects will be further evaluated in Phase II when soil and hydraulic conditions are known and evaluated as part of the Clean Water Act permit process.

Special Waste

Future residential and most commercial development along the corridor is not expected to increase special waste along the corridor. However, special waste may be generated should any of the future development include gas stations or automotive repair facilities, petroleum related. These businesses would be subject to the IEPA regulations overseeing the proper installation of related tanks and proper product disposal. Therefore, indirect or cumulative impacts related to special waste are not expected to result from implementation of this project.

Special Lands and Section 4(f) Properties

There are no existing or planned special lands or Section 4(f) properties adjacent to the project; therefore, no indirect or cumulative impacts to public lands are anticipated. If a local community decides to designate a parcel along the corridor as parkland or other public property, they will be aware of the potential roadway improvements and planned right-of-way requirements and will be able to coordinate as appropriate with IDOT.”

4.11 – Special Waste

Page 101. Replace the first paragraph with “*The ISGS performed three PESAs for the project corridor. The third PESA, ISGS #1789V, dated October 30, 2013, covered the entire project corridor and incorporated results of the earlier documents. Several Recognized Environmental Concerns (RECs) were identified through the assessment. Per PESA #1789V, 32 properties were identified with RECs. The PESA was validated by IDOT District One Environmental Studies Unit on March 10, 2016.*”

5.1 – Environmental Commitments

Page 105. After bullet points add “*Coordination of the type and location of stream mitigation will occur with the USACE during the permitting process.*”

Page 105, Add the following commitment “*In order to avoid impacts to the federally endangered Northern Long Ear Bat, tree removal will be restricted from April 1 to September 30.*”

5.2 Special Design and Construction Considerations

Page 105. Insert after the first paragraph of this item. “*During Phase II, details for the design of the wildlife crossings will be evaluated to help guide animals towards proposed wildlife crossing locations such as fencing, where feasible and appropriate along the roadway.*”

Chapter 6

Add Section “**6.8 Public Hearing**” and insert the following:
“**Public Hearing Summary**

The public hearing was held on Thursday, March 12, 2015 at the Huntley Recreation Center, 12015 Mill Street, Huntley, IL from 4 – 7 PM. The public hearing was conducted in an open house format with a public comment forum, which started at 6:00 p.m. A court reporter was present to transcribe oral comments during the public hearing. Attendees could sign-up for the public comment forum to publicly speak their comments, which were documented by the court reporter.

There were two rooms available for the public to view project materials, one room displayed a continuous audio-visual presentation that included information regarding the project overview, a review of the Purpose and Need, alternatives development and evaluation process, preferred alternative, Environmental Assessment (EA), request for feedback on the Environmental Assessment and public hearing materials, and the next steps of the project. The second room contained exhibit boards and roll plot maps, and attendees had the opportunity to speak with representatives from IDOT and the Project Study team. Representatives from the Pleasant Valley Road Re-alignment Study were also available to speak with attendees about that project. An exhibit showing the proposed improvements from that study was also displayed at the Public Hearing. The hearing was attended by 84 people. Within the comment period, which ended on March 26, 2015, 10 comment forms, 13 emails, 7 letters were received. In addition, three individuals spoke during the public comment forum and nine individuals spoke with the court reporter during the hearing. These comment methods resulted in 158 comments submitted during the public comment period. For more information please see Appendix E Public Involvement for detailed information.”

Exhibit 4-1 Environmental Constraints Map

Replace Exhibit 4-1 Environmental Constraints Map to show updates to waterway names to be consistent with the Environmental Assessment, revised symbolization of the bioswales and inclusion of additional BMPs.

Appendix A Agency Coordination

Insert April 21, 2014 letter from USACE to IDOT regarding BMPs and first flush capture rate.

Insert October 14, 2104 meeting notes from USACE coordination meeting regarding BMPs and first flush capture rate.

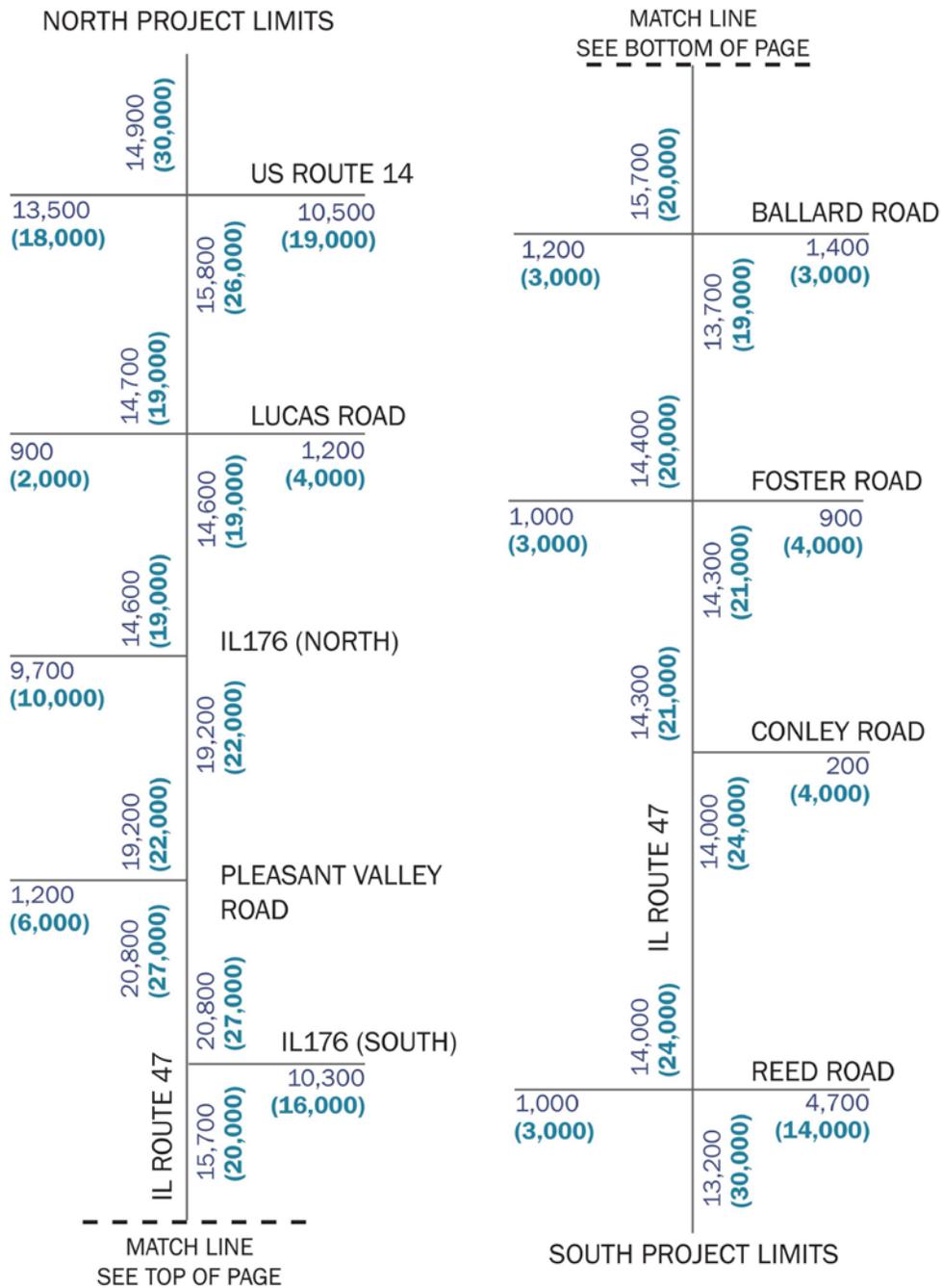
Insert March 2, 2015 letter from IDOT to USACE regarding BMPs and first flush capture rate.

Insert June 8, 2015 meeting notes with USACE, USEPA, USFWS, FHWA, and IDOT regarding the Eastern Prairie-Fringed Orchid.

Insert June 16, 2015 meeting notes with USACE regarding BMPs and first flush capture rate.

Appendix E Public Involvement

Insert Response to Comments Table.



LEGEND:
 EXISTING 2011
 (No Build 2040)
 24 HOUR TRAFFIC
 VOLUMES

Figure 2-5 Existing (2011) and No Build (2040) Traffic Volumes

INHS Site No.	Location (Exhibit 4-1 Sheet No.)	Comments	NWI Code	Description	Community Type	Linear Feet ¹	Impacts (linear feet)	Impacts (acres)	Impact Description	Meets USEPA water quality standards	T&E Species Present	Riffles/ Pools Present ²	Mussels Present ²	Water Type ³
	250 feet north of Rainsford Dr (Sheet 1)	West side of Rt 47 primarily		Unnamed tributary to South Branch Kishwaukee River	stream	200	120	0.03	Culvert replacement and extension	yes				NRPW
W1	350 feet north of Talamore Blvd (Sheet 2)			Unnamed tributary to South Branch Kishwaukee River	stream	720	150	0.09	Culvert replacement and extension	yes		yes/yes	yes	RPW
W2	850 feet north of Ackman Rd (Sheet 3)			Unnamed tributary to South Branch Kishwaukee River	stream	660	120	0.40	Culvert relocation, replacement and extension	yes		no/no	no	RPW
W3	across from Conley Rd (Sheet 5)	West side of Rt 47 only		Unnamed tributary to South Branch Kishwaukee River	stream	110	50	0.07	Culvert replacement and extension	yes		no/no	no	RPW

¹ Linear feet estimated based on Environmental Survey Request project limits

² As determined by the INHS Wetland Reports

³ 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

INHS Site No.	Location (Exhibit 4-1 Sheet No.)	Comments	NWI Code	Description	Community Type	Linear Feet ¹	Impacts (linear feet)	Impacts (acres)	Impact Description	Meets USEPA water quality standards	T&E Species Present	Riffles/ Pools Present ²	Mussels Present ²	Water Type ³
W4/ W14	50 feet north of Foster Rd (Sheet 6)	Pond on east side of Rt 47	freshwater pond	excavated quarry	deepwater aquatic habitat			0	No impact	yes				Isolated
W5	400 feet to 650 feet north of Foster/Union Rd (Sheet 6/7)	East of Rt 47 only		Does not appear on USGS topo map, ditch feeds into Kishwaukee River	stream	540	450	0.24	Channel re-alignment	yes		no/no	no	RPW
W6	650 feet north of Foster/Union Road (Sheet 7)		R2OWHx	Kishwaukee River	stream	810	240	0.07	Bridge replacement	no	Iowa darter	no/no	no	RPW
W7	On Rt 176 East Leg, north side of road, 1,000 feet east of Rt 47 (Sheet 16)			Does not appear on USGS topo map, ditch feeds into wetland	stream	310	270	0.10	Culvert replacement and extension	yes		no/no	no	NRPW
W8	On Pleasant Valley Rd, north and south side, 2,000 feet west of Rt 47	Waters 8, 9, 10, and 11 are all part of the same system. Waters 8, 9,		Unnamed intermittent tributary to the Kishwaukee River	stream	50		0	No impact	yes		no/no	no	NRPW

INHS Site No.	Location (Exhibit 4-1 Sheet No.)	Comments	NWI Code	Description	Community Type	Linear Feet ¹	Impacts (linear feet)	Impacts (acres)	Impact Description	Meets USEPA water quality standards	T&E Species Present	Riffles/ Pools Present ²	Mussels Present ²	Water Type ³
W9	On Pleasant Valley Rd, north side, 3,200 feet west of Rt 47	and 10 are outside of the project limits. (Sheet 10)			stream	830		0	No impact	yes		yes/yes	no	NRPW
W10	On Pleasant Valley Rd, north and side, 2,600 feet west of Rt 47				stream	2,650		0	No impact	yes		yes/yes	no	RPW
W11	350 feet south of IL Rt 176 (West Leg)				stream	230	180	0.11	Culvert replacement and extension	yes		no/no	no	RPW
W12	250 feet north of Hercules Rd (Sheet 14)	West side of Rt 47 only	PEMC	Unnamed tributary to Kishwaukee River	stream	110	60	0.01	Culvert relocation, replacement and extension	yes		no/no	no	RPW
W13	East side of Rt 47 across from Hawthorn Way (Sheet 7)	East side of Rt 47 only		Unnamed tributary to Kishwaukee River	stream	350		0	Channel re-alignment	yes		no/no	no	NRPW
W6	200 feet to 600 feet south of Dieckman Street (Sheet 14)		R2OWHx	Kishwaukee River	stream	700	700	0.02	Culvert relocation and extension; Channel re-alignment	no	Iowa darter	no/no	no	RPW

Table 4-13: Wetlands in the Project Corridor

Site No.	NWI Code	Community Type	Area (acre)	>50% ¹	FQI	Mean C	ADID ²	Functions Performed	Dominant Plant Species	Waters Type ³
2	PEMC	marsh	1.81	no	6.2	1.6	No	surface water storage, aquatic and terrestrial wildlife habitat	<i>Phalaris arundinacean</i> (reed canary grass) <i>Polygonum</i> species, <i>Typha angusifolia</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	<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	<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	<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	<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	reed canary grass	RPWWD
7		marsh	0.17	no	6.9	1.9	No	surface water storage, limited wildlife habitat	<i>Lersia oryzoides</i> (rice cut grass), <i>Scirpus fluviatilis</i> (river bulrush), narrow-leaved cattail	
8		marsh	0.36	yes	9.6	2.2	No	surface water storage, limited wildlife habitat	narrow-leaved cattail	
9	PFO1C	forested	approx. 2	no	10.9	2.7	No	surface water storage, aquatic and terrestrial wildlife habitat	<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	reed canary grass, narrow-leaved cattail	
11		marsh	0.18	yes	6.9	2.1	No	surface water storage, very limited wildlife habitat	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	reed canary grass	RPWWN
13	POWHx/ PEMCdf	shallow pond	approx. 5	no	8.1	3.6	No	surface water storage, primary aquatic wildlife habitat	<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	<i>Acnida altissima</i> (water hemp), <i>Cyperus esculentus</i> (field nut sedge)	

Site No.	NWI Code	Community Type	Area (acre)	>50% ¹	FQI	Mean C	ADID ²	Functions Performed	Dominant Plant Species	Waters Type ³
15		wet meadow	approx. 17	no	11.3	2.5	No	surface water storage, limited wildlife habitat	panicked aster, reed canary grass, <i>Ranunculus sceleratus</i> (cursed buttercup)	
16		marsh	Approx. 2	no	3.0	1.1	No	surface water storage, limited wildlife habitat	<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	reed canary grass	
18		farmed	0.38	yes	4.0	1.8	no	some surface water storage, minimal wildlife habitat	<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	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	<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	narrow-leaved cattail	
23		wet meadow	0.04	yes	3.5	1.8	No	some surface water storage, minimal wildlife habitat	reed canary grass	isolated
25		forested	0.57	yes	9.4	2	No	surface water storage, wildlife habitat	<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	<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	

Site No.	NWI Code	Community Type	Area (acre)	>50% ¹	FQI	Mean C	ADID ²	Functions Performed	Dominant Plant Species	Waters Type ³
28		forested	0.17	yes	13.3	3.3	No	surface water storage; minimal, low quality wildlife habitat	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	<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	black willow, sandbar willow, reed canary grass	
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	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	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	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	reed canary grass	
34	PEMC	forested, wet meadow	3.43	no	13.7	2.6	no	surface water storage, wildlife/aquatic habitat	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	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	narrow-leaved cattail	outside project limits

Site No.	NWI Code	Community Type	Area (acre)	>50% ¹	FQI	Mean C	ADID ²	Functions Performed	Dominant Plant Species	Waters Type ³
39		farmed	0.70	yes	0.5	0.2	no	surface water storage, minimal wildlife habitat	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	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	reed canary grass	
43	PEMC	marsh	5.09	yes	17.1	3.4	no	fair quality wildlife habitat and drainage was for surface water	reed canary grass, narrow-leaved cattail	
44	PEMC	marsh	1.88	no	8.7	1.7	no	surface water storage, wildlife habitat	common water plantain, narrow-leaved cattail	isolated
45	PEMC/ PFO1Cd	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	reed canary grass, narrow-leaved cattail	RPWWD
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	sandbar willow, reed canary grass	
46 west		wet shrubland	0.44	no	4.2	1.3	no	surface water storage, wildlife habitat	sandbar willow, reed canary grass	
47	PEMC	farmed	0.27	no	3.6	1.6	no	some surface water storage, limited wildlife habitat	cursed buttercup	isolated
48		wet meadow	0.36	yes	8.9	2.6	no	surface water storage, wildlife habitat	reed canary grass	isolated
49		marsh	approx 13	no	6.0	1.9	no	surface water storage, terrestrial/aquatic wildlife habitat	reed canary grass, narrow-leaved cattail	isolated

Site No.	NWI Code	Community Type	Area (acre)	>50% ¹	FQI	Mean C	ADID ²	Functions Performed	Dominant Plant Species	Waters Type ³
52		wet meadow	0.55	yes	5.0	1.4	no	surface water storage, wildlife habitat	reed canary grass	isolated
53	PEMC	wet meadow	1.46	yes	2.8	2	no	surface water storage, wildlife habitat	reed canary grass	isolated
54	PEMC	wet meadow	approx 3	no	5.8	1.6	no	surface water storage, wildlife habitat	panicked aster, reed canary grass	
55		farmed	0.20	no	0.6	0.3	no	limited wildlife habitat	<i>Zea mays</i> (corn)	isolated
56 east	PEMCd/ 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	reed canary grass	
56 west	PEMCd/ PEMB	wet meadow	1.52	no	5.3	2.2	no	surface water storage, wildlife habitat, acts as buffer for Kishwaukee River tributary	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	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	reed canary grass	
59	PEMC	marsh/wet meadow	approx 10	no	6.3	2.1	K633 high functional value	surface water storage, wildlife habitat	reed canary grass, narrow-leaved cattail	
60		marsh	0.09	yes	11.5	3.1	no	not determined by INHS	red-rooted spike rush, narrow-leaved cattail	NRPWW
61	POWHh	pond	approx 1	yes	12.7	3.5	no	not determined by INHS	longbeak buttercup, common buckthorn, <i>Salix amygdaloides</i> (peach-leaved willow), narrow-leaved cattail	NRPWW
62		wet meadow	0.01	yes	8.3	3.1	no	not determined by INHS	<i>Carex pallita</i> (wooly sedge), reed canary grass	NRPWW
63	POWHx	marsh	0.04	yes	7.7	2.6	no	not determined by INHS	reed canary grass, narrow-leaved cattail	RPWWD
64		pond	0.13	yes	10.7	3.6	no	not determined by INHS	<i>Elodea canadensis</i> (elodea)	RPWWD

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

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

² Advanced Identification (ADID) High Habitat or High Functional Value wetland

³ 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

Table 4-14: Wetland Impacts

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID ¹	Special Notes	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	0.06	1.5 : 1	0.09	2.0 : 1	0.12
3 east	0.24	No	11.0	2.5		marsh	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	0.29	3.0 : 1	0.87	3.0 : 1	0.87
4	0.57	Yes	7.8	1.8		marsh	0.57	1.5 : 1	0.86	2.0 : 1	1.14
5	1.51	Yes	7.5	1.8		marsh	0.05	1.5 : 1	0.08	2.0 : 1	0.10
8	0.36	Yes	9.6	2.2		marsh	0.36	1.5 : 1	0.54	2.0 : 1	0.72
9	approx 2	Yes	10.9	2.7		forested	0.23	1.5 : 1	0.35	2.0 : 1	0.46
10	0.80	Yes	7.8	2.2		marsh	0.33	1.5 : 1	0.50	2.0 : 1	0.66
11	0.18	No	6.9	2.1		marsh	0.18	1.5 : 1	0.27	2.0 : 1	0.36
12	approx 206	yes	15.5	4.0		wet meadow	4.94	5.5 : 1	27.17	5.5 : 1	27.17
13	approx 5	yes	8.1	3.6		shallow pond	0.48	1.5 : 1	0.72	2.0 : 1	0.96
14	0.88	yes	1.6	0.7		farmed	0.40	1.5 : 1	0.60	2.0 : 1	0.80
15	approx 17	yes	11.3	2.5		wet meadow	0.38	1.5 : 1	0.57	2.0 : 1	0.76
16	approx 2	yes	3.0	1.1		marsh	0.28	1.5 : 1	0.42	2.0 : 1	0.56
17	1.61	yes	5.7	1.3		wet meadow	0.68	1.5 : 1	1.02	2.0 : 1	1.36
18	0.38	yes	4.0	1.8		farmed	0.08	1.5 : 1	0.12	2.0 : 1	0.16
19	approx 14	yes	9.4	2.0		marsh	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	0.34	1.5 : 1	0.51	2.0 : 1	0.68
21	approx 12	yes	9.2	2.1		wet meadow	0.03	1.5 : 1	0.05	2.0 : 1	0.06
23	0.04	no	3.5	1.8		wet meadow	0.04	1.5 : 1	0.06	2.0 : 1	0.08
25	0.57	no	9.4	2.0		forested	0.57	1.5 : 1	0.86	2.0 : 1	1.14
27	approx 27	yes	15.8	3.4	K1008	forested	0.19	3.0 : 1	0.57	3.0 : 1	0.57

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID ¹	Special Notes	Impacts (acre)	Proposed Mitigation Ratio (in basin)	Proposed Mitigation Acreage	Proposed Mitigation Ratio (out of basin)	Proposed Mitigation Acreage
					high habitat value ²						
28	0.17	no	13.3	3.3		forested	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 ²	wet meadow	0.50	3.0 : 1	1.50	3.0 : 1	1.50
32 west	0.37	yes	6.3	1.9		wet meadow	0.15	1.5 : 1	0.23	2.0 : 1	0.30
33 east	1.15	yes	4.0	2.3		wet meadow	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	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	0.08	3.0 : 1	0.24	3.0 : 1	0.24
43	5.09	yes	17.1	3.4		marsh	0.73	1.5 : 1	1.10	2.0 : 1	1.46
44	1.88	yes	8.7	1.7		marsh	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	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	0.54	3.0 : 1	2.49	3.0 : 1	2.49
46 west	0.44	no	4.2	1.3		wet shrubland	0.44	1.5 : 1	0.66	2.0 : 1	0.88
47	0.27	yes	3.6	1.6		farmed	0.06	1.5 : 1	0.09	2.0 : 1	0.12
48	0.36	yes	8.9	2.6		wet meadow	0.36	1.5 : 1	0.54	2.0 : 1	0.72
49	approx 13	yes	6.0	1.9		marsh	2.38	1.5 : 1	3.57	2.0 : 1	4.76
52	0.55	no	5.0	1.4		wet meadow	0.55	1.5 : 1	0.83	2.0 : 1	1.10
53	1.46	yes	2.8	2.0		wet meadow	0.84	1.5 : 1	1.26	2.0 : 1	1.68
54	approx 3	yes	5.8	1.6		wet meadow	1.16	1.5 : 1	1.74	2.0 : 1	2.32

Site No.	Wetland Acreage (acre)	extends outside ROW	FQI	Mean C	ADID ¹	Special Notes	Impacts (acre)	Proposed Mitigation Ratio (in basin)	Proposed Mitigation Acreage	Proposed Mitigation Ratio (out of basin)	Proposed Mitigation Acreage
56 east	approx 8	yes	5.3	2.2	K711 high functional value	wet meadow	0.55	3.0 : 1	1.65	3.0 : 1	1.65
56 west	1.52	yes	5.3	2.2		wet meadow	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	1.28	3.0 : 1	3.84	3.0 : 1	3.84
58	approx 0.5	yes	6.4	2.4		wet meadow	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	0.68	3.0 : 1	2.04	3.0 : 1	2.04
62	0.01	no	8.3	3.1		wet meadow	0.01	1.5 : 1	0.02	2.0 : 1	0.02
63	0.04	no	7.7	2.6		marsh	0.04	1.5 : 1	0.06	2.0 : 1	0.08
64	0.13	no	10.7	3.6		pond	0.13	1.5 : 1	0.20	2.0 : 1	0.26
65	0.23	yes	6.8	2.6		marsh	0.23	1.5 : 1	0.35	2.0 : 1	0.46
66	1.64	yes	7.4	1.6		marsh	0.05	1.5 : 1	0.08	2.0 : 1	0.10
67	0.36	yes	7.5	1.9		marsh	0.04	1.5 : 1	0.06	2.0 : 1	0.08
68	0.04	yes				farmed	0.01	1.5 : 1	0.02	2.0 : 1	0.02
71	1.35	yes	11.0	2.2		floodplain forest	0.33	1.5 : 1	0.50	2.0 : 1	0.66
73	0.68	yes	7.2	2.2		wet meadow	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	0.12	3.0 : 1	0.36	3.0 : 1	0.36
TOTAL							25.63		67.02		74.36

¹ Advanced Identification (ADID) High Habitat or High Functional Value wetland

Appendix E Table of Contents

During the comment period, comments were received from federal and state agencies, local governments, individuals, and organizations. Unique comments were identified by annotating all comments received into those that could be considered standalone comments. Thus, a single communication could contain many unique comments.

Each communication received during the Comment Period is listed here in the Table of Contents by commenter name according to Federal Agencies, Local Governments, and Individuals.

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RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	FEDERAL AGENCY		COMMENT/RESPONSE
1	U.S. Fish and Wildlife Service	C	The EA contains minimal discussion of direct and indirect impacts to environmental resources. Furthermore, the term cumulative impact is not mentioned in the EA. The Final EA should have a separate section or chapter that discusses direct, indirect, and cumulative impacts on environmental resources.
		R	<p>The project will likely facilitate future land use conversion from open space to developed lands. As discussed in Section 4.1.9 of the EA and the new “Section 4.16 Indirect and Cumulative Impacts” on page 6 of the Errata, the local zoning and comprehensive plans designate the corridor for commercial and residential development. These developments will be subject to local requirements such as the McHenry County Stormwater Management Ordinance and local municipality restrictions and guidance. Also, the USACE Section 404 regulations will apply to any developments affecting wetlands or Waters of the U.S. Furthermore IDOT has committed to implementing BMPs adjacent to water resources wherever practicable as this project moves through the design and construction phase. Conservation of wetland and upland habitats as well as floodplains for the individual development proposals must be considered during those project designs. In accordance with local and federal requirements, potential indirect and cumulative impacts to natural resources are anticipated to be minimal.</p> <p>Future development would have the potential to create additional edge effects at the perimeter of the wetland and upland resources. The extent of resources affected by the edge effect could continue to move inward due to the cumulative effect of potential future development in the project corridor. The potential future development could also reduce the amount of open space along the corridor.</p>
2	U.S. Fish and Wildlife Service	C	Please forward environmental survey reports conducted by the Illinois Natural History Survey for the project to the Service for our review.
		R	The technical reports were provided to USFWS on May 27, 2015.
3	U.S. Fish and Wildlife Service	C	<p>4.6.2.2 - Wildlife Present in Project Corridor</p> <p>The EA states that: "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."</p> <p>While it is true that most wildlife species in the corridor are common, some uncommon species (e.g., Blanding's turtle [<i>Emydoidea blandingii</i>]) can be found within and adjacent to the project corridor. Furthermore, species that are identified as common are present in available habitat because the available habitat serves as the last remnants of habitat for certain species in a developed landscape. Some species such as Blanding's turtle are rare and State listed due to habitat loss. Information about rare and uncommon species should be added to Section 4.6.2.2 of the Final EA.</p>

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	FEDERAL AGENCY	COMMENT/RESPONSE
R		<p>A discussion will be included in the Errata about rare and uncommon species as follows:</p> <p>Habitat for some rare and uncommon species is present near the project corridor. However, as described in Section 4.6.3.1, it was determined that habitat for the federally-listed threatened or endangered species known occur within McHenry County is not present within or adjacent to the project corridor. On page 3 of the Errata there is new information included from the 2015 Eastern prairie fringed orchid survey and northern long-eared bat status.</p> <p>Section 4.6.3.2 of the EA contains detailed information on the state-listed threatened or endangered species and Table 4-10 presents the habitat preferences of state-listed threatened or endangered species. Only one state threatened species (Iowa Darter) was found, although other fish are known to exist within the Kishwaukee watershed. Other state-listed threatened or endangered species occur within the vicinity of the project corridor. Page 3 of the Errata includes new information from the 2015 Aquatic Survey that no Blanding’s turtles were found to be present along the corridor.</p>
4	U.S. Fish and Wildlife Service	<p>C 4.6.2.3 - Wildlife and Habitat in Project Corridor</p> <p>The EA underrepresents the habitat value of the existing riparian corridors and wetlands adjacent to the project corridor with statements such as: "The riparian habitat in the project corridor is generally small and fragmented, and therefore provides only minor benefits." On the contrary, existing wetlands and riparian corridors within and adjacent the project corridor provide valuable benefits for fish and wildlife resources. Due to urbanization and fragmentation of habitats in the past, the remaining natural habitats described in this section are critical to the survival of wildlife in the area because these habitats provide the last refuges for wildlife in this still developing landscape. The Final EA should be revised to share this information.</p>
R		<p>Page 2 and 7 of the Errata expand the discussion regarding riparian habitat in the project corridor and how it is generally small and fragmented due to channelized streams and agricultural impacts. However, the remaining wetlands and riparian corridors within and adjacent to the project corridor provide valuable benefits for fish and wildlife resources. Due to previous impacts and fragmentation of habitats not associated with this project, the remaining natural habitats described in this section are critical to the survival of wildlife in the area because these habitats provide the last refuges for wildlife in this still developing landscape. As such, the proposed design will provide small mammal as well as reptile/amphibian crossings.</p>

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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5	U.S. Fish and Wildlife Service	C	<p>4.6.3.1 - Federally Listed Species</p> <p>The EA states that IDOT BDE, Environment Section, Natural Resources Unit prepared a Biological Resources Review (BRR) memo and the BRR concluded that because there are no mesic to wet prairies in the project corridor or no high quality emergent wetlands (i.e., with FQI more than 20 or mean C 3.5 or higher), that no suitable habitat for the eastern prairie fringed orchid (<i>Platanthaera leucophaea</i>) is present. Although suitable habitat for the species may not be present within the survey limits, suitable habitat may be present outside of the project right-of-way (e.g., in larger offsite wetlands outside of the right-of-way) where the species could be indirectly affected from project construction and operations. We recommend that IDOT meet with the Service to discuss areas where additional Floristic Quality Assessments (FQAs) may need to be conducted to determine whether surveys for the eastern prairie fringed orchid in wetlands adjacent to the corridor are warranted.</p>
		R	<p>IDOT and the FHWA met with the USACE, USFWS, and the USEPA on June 8, 2015 to discuss the potential additional environmental surveys to identify the presence of the Eastern Prairie Fringed Orchid (<i>Platanthaera leucophaea</i>) (EPFO), a federally listed endangered species, within the project corridor. Wetland surveys conducted in 2009, 2011 and 2013 for the project did not identify any wetlands that met the EPFO survey criteria. In response to agency comments that the quality toward the edge of a wetland may be different than toward the center of a wetland, additional wetland surveys were conducted in May 2015 by INHS. Based on this additional data, there were three wetland locations (34, 40, and 58/59) that met the USFWS EPFO criteria which are based on FQI, C-value, and associated plant species for EPFO habitat. Wetlands 34 and 40 were well outside of the project limits, so it was agreed that only wetlands 58/59 would be surveyed for the EPFO. The INHS Botanical Survey Report dated October 2015, with field surveys from June and July of 2015, documented that no EPFOs were found at these wetland sites. This is documented on page 3 of the Errata.</p>
6	U.S. Fish and Wildlife Service	C	<p>4.6.3.2 - State-Listed Species</p> <p>IDOT's BRR concluded that the project would not affect State listed species and the EA states that: "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." Blanding's turtle was included in the species listed that may be found in the project vicinity, but habitat is not found immediately adjacent to IL 47. The locations of confirmed individual Blanding's turtle occurrences were obtained from the McHenry County Conservation District (MCCD). Correspondence with MCCD indicates that important habitat for the species exists just west of the corridor (west of Route 176 and Ballard Road), at MCCD's Pleasant Valley site, and that it is very likely that turtles from Pleasant Valley will use wetlands adjacent to IL 47. It was also noted that Blanding's turtles have also been captured in and around the Huntley marshes, near Reed Road.</p> <p>Based on this correspondence and considering the species life cycle, it is highly likely that the species is found within the wetland complexes or tributaries adjacent to IL 47 and that these wetlands provide potential habitat for the species. The Final EA should account for this information and IDOT should meet with the Service and other natural resource agencies with expertise to discuss additional locations for turtle crossings.</p>

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		R	IDOT conducted Blanding's turtle surveys in summer of 2015. The INHS Aquatic Survey Report dated 17 August 2015, with field surveys from June 2015, documented that no Blanding's turtles were found to be present along the corridor. This is documented on page 3 of the Errata.
7	U.S. Fish and Wildlife Service	C	4.7 - Water Resources and Aquatic Habitats IDOT should consider in-kind mitigation for stream impacts.
		R	IDOT will take the suggestion into consideration while abiding by current USACE guidance.
8	U.S. Fish and Wildlife Service	C	<p>IDOT made the following statement regarding 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."</p> <p>While we agree that the floristic diversity is low, especially adjacent to the project right-of-way (due to impacts from road operations), the wetlands outside of ADID Wetlands K1008 and K984 are important precisely because these wetlands are the last remaining wetlands in the area for wildlife to use. In addition, the statement that impacts to high habitat value wetlands are not expected to be substantial does not take into account indirect and cumulative impacts (such as those from this project) that continue to degrade the wetlands in the corridor and extend the edge effects into the higher floristic quality and higher habitat value portions of these wetlands. Although these edge effects appear to be small and are restricted to the periphery of these wetlands, these wetlands have already suffered degradation in quality due to road use and this project will extend the zone of edge effects inward due to the new edge (thus extending indirect impacts [such as stormwater runoff! which further degrades the core of these remaining wetland complexes). Additionally, other large wetland complexes in the corridor, which are not designated ADID for high habitat values, provide habitat value for wildlife in the project corridor (see comments below). The Final EA should be revised to account for the habitat values that the wetlands within the corridor provide.</p>
		R	Cumulative and indirect impacts to wetlands are discussed starting on page 6 of the Errata.

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9	U.S. Fish and Wildlife Service	C	<p>4.7.2 - Generalized Impacts</p> <p>Throughout the Merger process, the Federal resource agencies have discussed the sensitivity of downstream aquatic resources. This information has also been relayed by the stakeholders in non-Merger meetings. Research has shown that the cumulative effects of increased stormwater runoff could result in increased ponding and "bounce" in wetlands downstream, reducing biodiversity and favoring the spread of invasive species in downstream wetlands. To minimize indirect impacts to downstream aquatic resources, infiltration BMPs should be designed to retain the 1" rain event. Portions of the project where there are wetlands or streams that are High Quality Aquatic Resources (HQARs) should retain the 1.25" rain event. In order to determine if offsite portions of larger wetland complexes are HQARs, IDOT will have to conduct FQAs of these wetlands. This information will also be useful to determine if offsite portions of larger wetland complexes possess suitable habitat for the eastern prairie fringed orchid. The Final EA should be revised to reflect this information and these commitments.</p>
		R	<p>The USACE letter regarding Best Management Practices (BMPs) from April 21, 2014, the subsequent meeting minutes from the October 14, 2014 meeting with the USACE, and the IDOT response letter dated March 2, 2015 are included in the Appendix A of the Errata. The BMPs and compensatory storage included as part of the project initially capture 0.31 inches of the first flush capture rate. A letter from USACE on April 21, 2014 requested that the 1-inch of the first flush of rainfall and 1.25-inches for areas with high-quality aquatic resources (HQARs) be captured for the proposed improvements. In a meeting with USACE on October 14, 2014 as well as the IDOT response letter from March 2, 2015; IDOT was able to include additional BMPs and increases to the compensatory storage which raised the average first flush capture rate 0.94 inches for the project area. Following this coordination, further refinement of the compensatory storage and BMPs, an average first flush capture of 1.20 inches was achieved for the project (see Table 4-11a). The 1.25-inch first flush capture for High Quality Aquatic Resources (HQARs) was met at both Kishwaukee River crossings. There was only one watershed outlet (#7) where the 1.0-inch capture rate could not be achieved. This location includes many conflicts with existing wetlands and floodplains which made it prohibitive to provide additional infiltration storage to capture the first flush.</p>
10	U.S. Fish and Wildlife Service	C	<p>4.10 Wetlands</p> <p>The EA states that only one wetland was identified as a High Quality Aquatic Resource (HQAR). The Floristic Quality Indexes and mean coefficient of conservatism values used to make these determinations were based on FQAs conducted within the project right-of-way. As described above, in order to determine if offsite portions of larger wetland complexes are HQARs, IDOT should conduct FQAs for these wetlands. Providing this clarification will also assist in determining the proper mitigation ratio for impacted wetlands. We recommend that a 404 pre-application meeting be held to discuss this issue before the 404 permitting process.</p>

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#	FEDERAL AGENCY		COMMENT/RESPONSE
		R	<p>In response to this comment, INHS conducted a field visit in May 2015 to evaluate wetland complexes along the corridor, including offsite portions of wetland sites which were not fully delineated during previous surveys. The INHS updated the FQA's for these sites to provide a comprehensive evaluation of the quality of the complex. These issues were presented in the June 8, 2015 meeting with federal resource agencies.</p> <p>IDOT conducts ongoing coordination with the USFWS and the USACE regarding upcoming permits. A pre-application meeting will be held for this project and the Department anticipates a series of meetings in the current format with the resource and regulatory agencies.</p>
11	U.S. Fish and Wildlife Service	C	<p>This section of the EA does not fully disclose potential indirect impacts to wetlands that are partially filled within the corridor such that the remaining wetland portions may not be viable. In these situations, the USACE should require that the entire wetland be considered impacted and the appropriate mitigation ratio should be required. The Final EA should fully disclose impacts to wetlands that are partially filled by assessing the extent of indirect impacts (e.g., a small area of fill could alter the hydrology of a larger unfilled portion of the wetland) and include those acreage amounts in the calculation of wetland impact acreages (and mitigation requirements).</p>
		R	<p>The secondary and cumulative impact discussion on page 8 addresses the potential wetland impacts due to other development along the corridor.</p>
12	U.S. Fish and Wildlife Service	C	<p>The mitigation ratio for impacts to wetland identified as high habitat value wetlands should be at least 6:1.</p>
		R	<p>The USACE has standard ratios that are used for mitigation. The Interagency Wetland Policy Act (IWPA) also applies and the mitigation requirements for IWPA are normally more stringent than the USACE requirements. The higher of these two mitigation ratios will be used.</p>
13	U.S. Fish and Wildlife Service	C	<p>The EA states that: "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." We recommend that IDOT strongly consider mitigation near the area of impacts considering that sensitive aquatic resources are located adjacent to and downstream of the project corridor and that rare species (e.g., Blanding's turtle) and other wildlife (including Service trust resources) are found adjacent to and downstream of the corridor. All mitigation should follow the 2008 Mitigation Rule.</p>
		R	<p>Wetland mitigation will follow the IWPA and 2008 USACE Rule and will be coordinated with the USACE and IDNR. Per the 2008 USACE Rule, mitigation near the project corridor is considered 'permittee responsible mitigation' and is only to be used if wetland mitigation bank or in-lieu fee program is unavailable.</p>

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#	FEDERAL AGENCY		COMMENT/RESPONSE
14	U.S. Fish and Wildlife Service	C	4.6.2.4 - Vehicle/Wildlife Crashes in Project Corridor In regard to wildlife crossings, we recommend that the Federal Highway Administration's (FHWA) Wildlife Crossing Structure Handbook, Design and Evaluation in North America (FHWA-CFL/TD-11-003 March 2011; A.P. Clevenger and M.P. Huijser) be utilized as a reference manual for wildlife crossing structures and fencing since it provides representative designs and specific information about what types of structures are used by which species of wildlife, including design details to make the structure more usable. The Final EA should also be revised to show that fencing or low-profile barrier walls will be used, unless there is a valid reason not to use them. Fencing forces wildlife to use crossings. Without fencing, some animals would not use wildlife crossings (Clevenger et al. 2001). Fencing should be maintained in perpetuity in order to effectively direct wildlife to the wildlife crossings.
		R	The wildlife crossing designs will be achieved during the design phase utilizing a variety of sources including the FHWA Wildlife Crossing Structure Handbook. This is included in the Errata on page 2.
15	U.S. Fish and Wildlife Service	C	A minimum culvert size should be used as wildlife crossing. We recommend a minimum size of 36 inches for culverted crossings. These oversized culverts should have wildlife passage features such as shelves on one or both sides of a stream, to allow dry passage during high water periods. Such features would be beneficial for wildlife (small mammals, reptiles, and amphibians) along corridors and greenways that have been identified as areas that provide connectivity and allow for animal movement between habitats. This section should also acknowledge that culverted crossings should follow the Chicago District - U.S. Army Corps of Engineers (USACE) Regional Permit Program (RPP) guidelines for culvert placement.
		R	The wildlife crossing designs will be achieved during the design phase utilizing a variety of sources including the FHWA Wildlife Crossing Structure Handbook. Furthermore, all of the proposed culverts for wildlife crossings are designed to be larger than 36".
16	U.S. Fish and Wildlife Service	C	IDOT should meet with the Service and other natural resource agencies with expertise to discuss additional locations for wildlife crossings.
		R	The final designs for the wildlife crossings will be presented during the coordination of the permits required for the project. This will include local, state and federal agency coordination.
17	U.S. Fish and Wildlife Service	C	The Final EA should address the above comments as they relate to environmental commitments and mitigation.
		R	The Errata includes revised language throughout regarding the environmental mitigation and environmental commitments for the project to reflect any changes made in response to USFWS comments.

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#	FEDERAL AGENCY		COMMENT/RESPONSE
18	U.S. Environmental Protection Agency	C	The Environmental Constraints figures provided with the Draft EA did not hatch or otherwise detail the locations and acreage of individual, specific wetland impacts. Based on comparison of these figures to Table 4-14 (Wetland Impacts) in the Draft EA, EPA must assume that at this time, any wetland located within the project's proposed Right of Way (ROW) is proposed for impact. However, just because wetlands are located within the project's proposed ROW does not mean that impacts are necessary; it appears further minimization of impacts from the numbers noted in the Draft EA is feasible and appropriate.
		R	For the purpose of the EA, the wetlands located within the proposed ROW limits were considered as impacted and is a worst-case scenario. Page 5 of the Errata contains language describing this and as the project moves into the design phase, further wetland avoidance and impact minimization efforts will occur.
19	U.S. Environmental Protection Agency	C	Page 91 of the Draft EA states that wetland delineations were performed in 2009, with supplemental delineations undertaken in 2011 and 2013. The Draft EA was silent on whether or not these delineations have been reviewed by the U.S. Army Corps of Engineers (USACE) and if a USACE jurisdictional determination (JD) has been issued. Recommendations: The Final EA should clarify if/when a JD was made by USACE. If the JD is close to expiration, the Final EA should discuss FHWA/IDOT plans to update the delineation.
		R	The Environmental Assessment (EA) report acknowledges on page 97 the jurisdictional status was suggested by the INHS. As a reminder, the construction phase of this project is currently unfunded. Wetland delineations will be updated when funding is identified for construction and the timeline for permitting becomes apparent. Then a jurisdiction determination (JD) will be requested from the USACE. The INHS references to jurisdiction and isolated wetlands have been deleted in Table 4-11 and the text.

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20	U.S. Environmental Protection Agency	C	<p>Narrative discussions of stream impacts throughout the Draft EA state that Section 2 will require five stream crossings (e.g., Page 21) and that Section 3 will require one impact to the Kishwaukee River (e.g. Page 34). However, Table 4-11 notes at least eight distinct stream/river impacts in Section 2 and two in Section 3. EPA's review of the Environmental Constraints figures confirms at least eight distinct locations where stream crossings or stream relocations will be required in Section 2, and four locations in Section 3. The Draft EA is vague on describing stream impacts. No discussion on specific impacts at specific crossing locations was provided in the Draft EA. Table 4-11 gives generalized location information, but does not describe the type of impact (e.g., new bridge, new culvert, culvert extension, channel relocation) or provide details (e.g., 700' impact on east side of Route 47; extension of existing 5' by 7' by 130' four sided box culvert with a 5' by 7' by 30' extension on eastside of Route 47, etc.) EPA noted the following types of impacts in the Environmental Constraints figures for Section 2:</p> <ul style="list-style-type: none"> o Unnamed tributary (UNT) to South Branch Kishwaukee River (Sheet 1) - crossing o UNT to South Branch Kishwaukee River (Sheet 2) - crossing o UNT to South Branch Kishwaukee River (Sheet 3) - crossing o UNT to South Branch Kishwaukee River (Sheet 5) - potential relocation o UNT to Kishwaukee River (Sheets 6 and 7) - potential relocation o Kishwaukee River (Sheet 7) - crossing o UNT to Kishwaukee River (Sheet 10) - crossing o Channels connecting WLs 64, 63, 62, and ADID K1008 (Sheet 16) - crossing/potential relocation? <p>Recommendations: All narrative information summarizing the number and type of crossings and stream impacts throughout the project (by Section) should be corrected in the Final EA. Table 4-11 in the Final EA should be updated to provide additional information on each type of stream impact, a description of the impact, and a reference to where in the Environmental Constraints figures the crossing is located. The Environmental Constraints figures should be updated to include information on type of stream impact, and detail/shade specific impacts such as channel centerline relocations, new crossings, crossing extensions, etc.</p>

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#	FEDERAL AGENCY	COMMENT/RESPONSE
		<p>R</p> <p>For the purposes of the comparing and evaluating alternatives, only IDNR-OWR jurisdiction crossings were identified. Therefore, the description of stream crossings in Chapter 3 refer to major crossings that fall under the IDNR-OWR jurisdiction. However, all alternatives crossed all of the same stream crossings. In Chapter 4, all stream crossings are discussed for the purposes of the environmental process when documenting the potential impacts of the Preferred Alternative.</p> <p>The Errata includes an updated table with an additional column(s) providing further discussion to more clearly explain the reason and details on each of the stream impacts. The updated table will also include the roadway alignment stationing where the crossing occurs to eliminate confusion on the location and to compare the table with the Environmental Constraints exhibit.</p>
21	U.S. Environmental Protection Agency	<p>C</p> <p>WATER QUALITY</p> <p>The Kishwaukee River is listed as impaired (i.e., not meeting state water quality standards) on the Illinois EPA Clean Water Act Section 303(d) list of impaired water bodies. While the Draft EA on page 82 mentioned the Kishwaukee River's listing on the 303(d) list, the document did not include a discussion of implications to water quality for proposed impacts to 303(d)-listed water bodies or to water bodies upstream of a 303(d)-listed water body.</p> <p>Recommendation: The Final EA should provide information on the current impairments listed for the Kishwaukee River (and other water bodies, if applicable), and describe how implementation of the proposed project could potentially affect the water body (with regard to specific listed impairments).</p>
		<p>R</p> <p>Page 4 of the Errata contains language describing the Kishwaukee River as a medium priority impaired waterway. The designated use impairments are fish consumption and aquatic life with the causes of the impairments listed as mercury/PCBs and dissolved oxygen/sedimentation/siltation respectively. The BMPs proposed as part of the project are intended to reduce these types of contaminants and further impairments are not expected as a result of project implementation.</p> <p>As this project moves into the design phase and eventually permitting, efforts to minimize contaminated run-off will be identified during the 401/404 water quality certification process.</p>

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#	FEDERAL AGENCY		COMMENT/RESPONSE
22	U.S. Environmental Protection Agency	C	ENVIRONMENTAL MITIGATIONWetland mitigation proposals and ratios are discussed on page 100 of the Draft EA. However, the Draft EA was silent on mitigation requirements, and mitigation offerings, for proposed stream relocations.Recommendations: The Final EA should include a discussion on mitigation offered for stream relocations, including how mitigation follows the requirements of the 2008 USACE Mitigation Rule. Every attempt should be made to use naturalized solutions over unnatural, structural solutions for stream mitigation/restoration associated with the project. Stream mitigation/ restoration should take into consideration fluvial geomorphologic principles (scientific principles applied to rivers) to allow for a design that complements the stream or river. The Final EA should include a monitoring and adaptive management plan for any permittee-responsible mitigation. The plan should include a description of proposed monitoring activities at mitigation sites, including quantifiable and measureable success criteria for all ecosystem restoration work, and should specify the length of the monitoring period(s). Additional information on the party(ies) who will maintain mitigation/restoration sites in perpetuity should also be included.
		R	The EA identifies the amount of wetland mitigation required in Table 4-14; specifics on the location and type of mitigation are not included as they will be coordinated with the local, state, and federal authorities during the permitting process. The EA did not specify stream mitigation; this has been included in the Errata on pages 4 and 9. As the project moves into the design phase and eventually permitting, the mitigation amounts and locations will be finalized through coordination with local, state, and federal agencies. Monitoring plans and commitments will also be specified at that time.
23	U.S. Environmental Protection Agency	C	The Draft EA did not discuss whether tree removal or brush clearing will be required to construct the project. An IDOT memo dated July 23, 2010, on Biological Resources Review (located in the Appendices), states, "Project construction will involve the removal of an unknown quantity of trees. Trees should be replaced in accordance with Departmental Policy D&E-18." Recommendation: The Final EA should include information on tree removal and provide a discussion of proposed tree mitigation. Regarding proposed tree trimming and removal, the Final EA should disclose the types and numbers (and acreage of shrubby areas or trees) that are proposed to be cleared for construction. The Final EA should also disclose whether these clearing areas are located in wetlands, streams, or other regulated Waters of the United States. Additionally, EPA recommends that discussion of tree clearing/removal (if located in Waters of the U.S.) specify whether trees will be mechanically cleared (bulldozed) or cut at their base (leaving the trunks intact). This differentiation in tree removal is important with regard to regulatory requirements under Sections 404 and 401 of the Clean Water Act. EPA recommends mitigation for any tree loss associated with the project. Mitigation might include, but is not limited to, replanting of native tree species adjacent to the river, or assisting local, county, or state agencies with any appropriate ongoing or planned reforestation plans. The Final EA should document specific mitigation measures to be undertaken to compensate for the loss of trees.
		R	Although the corridor has relatively few trees and brush, an estimate of their removal has been added to the Errata on page 1. Mitigation will follow the Departments tree replacement policy (IDOT Policy D&E 18 "Preservation and Replacement of Trees").

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#	FEDERAL AGENCY		COMMENT/RESPONSE
24	U.S. Environmental Protection Agency	C	<p>STORMWATER AND CONSTRUCTION STAGING</p> <p>Page 84 of the Draft EA states, " ... Bioswales 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." However, EPA previously noted in earlier comments on wetlands that the Environmental Constraints figures show several areas where bioswales and compensatory storage areas are proposed to be constructed in wetlands.</p> <p>Recommendations: All figures and project plans should be amended/reconciled to ensure that no storm water/sediment/erosion control measures are proposed to be constructed in wetlands or other Waters of the U.S. This should be clearly stated and supported in all figures provided with the Final EA.</p>
		R	<p>Bioswale locations are only shown in areas already impacted to the roadway ROW. Those areas shown where BMPs or bioswales are proposed will no longer be a functioning wetland due to construction disturbance and will be mitigated for. During the permitting process, minimization will occur and bioswale locations can be re-assessed at that time. However, there will be situations where the wetland will be graded out as part of the roadway and/or ditch construction, and these locations may be replaced with a bioswale.</p>
25	U.S. Environmental Protection Agency	C	<p>In prior correspondence to IDOT, USACE has indicated they expect stormwater measures to retain stormwater runoff from the 1" rain event. For areas that drain to HQARs, the 1.25" rain event should be the target for retention. The primary Best Management Practice (BMP) proposed along the Route 47 upgrades are bioswales. However, the Draft EA was silent on any commitments to retain for the 1" rain event (or 1.25" rain event for drainage to HQARs). Correspondence from IDOT to USACE dated February 17, 2015, provided information on revised designs for first flush capture; however, this information was not provided in the Draft EA.</p> <p>Recommendations: The Final EA should include additional information on stormwater capture commitments, including for the 1" and 1.25" rain events as discussed in the IDOT letter dated February 17, 2015.</p>
		R	<p>Correspondence with the USACE include a letter regarding Best Management Practices (BMPs) from April 21, 2014, the subsequent meeting on October 14, 2014 with the USACE, the IDOT response letter dated March 2, 2015 and a follow-up meeting on June 18, 2015. Documentation of this coordination will be included in the Errata Appendix A and pages 4 and 5 of the Errata. The commitments from those meetings and response letter will be followed with further coordination and discussions during the permit process which may include the USACE clarification and guidance from December 2014.</p>

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#	FEDERAL AGENCY		COMMENT/RESPONSE
26	U.S. Environmental Protection Agency	C	<p>The Draft EA did not discuss any construction access or staging areas that may be required to implement the preferred alternative.</p> <p>Recommendations: The Final EA should include proposed construction measures, including a discussion of staging areas and their locations, access to the worksite(s), and detailed discussion on any proposed in-stream construction. EPA recommends that equipment not work from the active stream, and that dewatering measures such as temporary portable dams or cofferdams be installed to isolate stream flow from any active work areas, if feasible.</p>
		R	<p>Construction staging areas are typically identified during Phase II (Final Design) rather than during Phase I (Preliminary Engineering and Environmental Studies). However, construction staging area locations will be finalized with the contractors after their selection and sites adjacent to high quality aquatic resources will be avoided whenever practicable. Cofferdams and proper temporary portable dams for dewatering measures will be required by IDOT whenever feasible. Furthermore, instream work will not be allowed from April 1 through June 15 of any construction year at the two Kishwaukee River crossings.</p>
27	U.S. Environmental Protection Agency	C	<p>OTHER ISSUES</p> <p>Narrative descriptions of all alternatives include a proposed eight foot wide shared use path; however, all cross-sectional profile drawings show a 10' wide shared use path.</p> <p>Recommendation: This discrepancy should be reconciled.</p>
		R	<p>The 10' shared use path is only shown on the exhibits on the initial range of alternatives. As discussed on page 36 of the Environmental Assessment (EA) report, the preferred alternative proposes narrowing the paths by two feet (10 feet to 8 feet) to reduce wetland impacts.</p>
28	U.S. Environmental Protection Agency	C	<p>The Fish and Wildlife Coordination Act (FWCA) requires that Federal agencies consult with the state wildlife agencies and U.S. Fish and Wildlife Service (USFWS) concerning the conservation of wildlife resources where the water of any stream or other water body is proposed to be controlled or modified by a Federal agency or any public or private agency operating under a Federal permit. As this project will require modifications and Federal permits for impacts to several rivers and tributaries, consultation with these agencies is required. Correspondence to and from the state wildlife agencies and USFWS regarding required consultation efforts should be included in the Final EA.</p> <p>Recommendation: Include information on the requirement for consultation under the FWCA, and information on the status and results of those consultation efforts, in the Final EA.</p>

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
		R	Consultation with the state wildlife agencies as well as the U.S. Fish and Wildlife Service (USFWS) was performed throughout the duration of this project during the NEPA/404 Merger process. Documentation of that correspondence is included in Appendix D of the Environmental Assessment (EA) report. Documentation of any additional correspondence that has occurred subsequent to the signed EA is included in the Errata. Additionally, coordination with these agencies will continue as this project progresses into the design phase (Phase II) and permitting process.
29	U.S. Environmental Protection Agency	C	Sheet 1 of the Environmental Constraints map incorrectly labels an unnamed tributary to the South Branch of the Kishwaukee River (north of Rainsford Drive) as an unnamed tributary to Kishwaukee Creek. Sheet 3 makes the same error (crossing north of Ackman Road). Sheet 5 also makes the same error (west side of Conley Road). Recommendation: These errors should be corrected in the Final EA.
		R	Different map references show different names for some of the waterways. The exhibits will be revised for consistency and updated in the errata as necessary.
30	U.S. Environmental Protection Agency	C	An unnamed tributary to the Kishwaukee River is shown on Sheets 6 and 7 of the Environmental Constraints Map (between Union/Foster Road and its confluence with the Kishwaukee River). This stream is not labeled. Recommendation: This stream should be labeled and figures updated in the Final EA.
		R	The Exhibit will be revised with new labels.
31	U.S. Environmental Protection Agency	C	Recommendations: The Final EA should clarify if all wetland acreage within the proposed ROW is proposed to be impacted. Additionally, Environmental Constraints figures should be updated with the acreage of each wetland (if the wetland extends outside of the ROW, a plus sign should be added to the acreage, such as 1.43+ acres). The figures should also shade/hatch the areas of proposed wetland impact, and text should be added to note the proposed acreage of impact.
		R	All wetlands within the existing and proposed ROW limits are currently anticipated to be impacted. This allowed us to present a conservative estimate of wetland impacts. Impacts will be minimized to the extent practicable in Phase II.
32	U.S. Environmental Protection Agency	C	Section 1 Wetland 2: Table 4-14 proposes 0.06 acre of wetland impact. However, the Environmental Constraints pages show that the proposed ROW doesn't start until east of this location, and that the proposed sidewalk does not appear to encroach in this wetland. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	Although the proposed ROW limits end north of Reed Road, there could be work proposed within the existing ROW limits (e.g. grading) and thus the project limits. The worst-case scenario was presented in the EA and avoidance and minimization efforts will continue during the design and permitting process.

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#	FEDERAL AGENCY		COMMENT/RESPONSE
33	U.S. Environmental Protection Agency	C	Section 2 Wetland 3 east (Advanced Identified Wetland [ADID]): Table 4-14 proposes a complete impact (0.24 acre) to this wetland. The Environmental Constraints pages show that the shared use path may require partial impact to this wetland, but it is not clear why Table 4-14 proposes a complete impact. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
34	U.S. Environmental Protection Agency	C	Wetland 3 east (ADID): Table 4-14 proposes 0.29 acre of impact to this large (15+ acre) wetland. The Environmental Constraints pages show that the sidewalk may require partial impact to this wetland. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact Wetland 3 (east and west) within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
35	U.S. Environmental Protection Agency	C	Wetland 4: Table 4-14 proposes a complete impact (0.57 acre) to portion of this wetland located within the ROW. The Environmental Constraints pages show that the shared use path may require partial impact to this wetland. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
36	U.S. Environmental Protection Agency	C	Wetland 5: This wetland, while located partially within the proposed ROW, is west of both the proposed road and proposed sidewalk. However, Table 4-14 proposes 0.05 acre of wetland impact. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

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37	U.S. Environmental Protection Agency	C	Wetland 6: Table 4-14 proposes 0.25 acre of impact to this wetland. The Environmental Constraints pages appear to show this impact as construction of a compensatory flood storage basin partially within the wetland. Natural wetlands should not be used for pollution prevention devices or impacted to construct flood storage areas. The location or shape of the compensatory storage area should be modified to fully avoid this impact. This impact appears fully avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Preliminary design of the compensatory storage site near Wetland 6 was revised to avoid impacts to this wetland.
38	U.S. Environmental Protection Agency	C	Wetland 8: Table 4-14 proposes 0.25 acre of impact to this wetland. The Environmental Constraints pages show that the sidewalk may require partial impact to this wetland. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
39	U.S. Environmental Protection Agency	C	Wetland 9: Table 4-14 proposes 0.23 acre of impact to this wetland. The Environmental Constraints pages show that the shared use path may require partial impact to this wetland; however, wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
40	U.S. Environmental Protection Agency	C	Wetland 10: This wetland is bisected by Route 47, but was not broken into Wetland 10 west and Wetland 10 east. Table 4-14 proposes 0.33 acre of impact, but it is unclear where these impacts are located, and if all wetland within the proposed ROW is proposed to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

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41	U.S. Environmental Protection Agency	C	Wetland 11: Table 4-14 proposes 0.18 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
42	U.S. Environmental Protection Agency	C	Wetland 12 (a High Quality Aquatic Resource [HOAR]): This wetland is bisected by Route 47, but was not broken into Wetland 12 west and Wetland 12 east. Table 4-14 proposes 4.94 acres of impact to this high quality aquatic resource wetland, but it is unclear where these impacts are located, and if all wetland within the proposed ROW is proposed to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
43	U.S. Environmental Protection Agency	C	Wetland 13 - This wetland is bisected by Route 47, but was not broken into Wetland 13 west and Wetland 13 east. Table 4-14 proposes 0.48 acre of impact, but it is unclear where these impacts are located, and if all wetland within the proposed ROW is proposed to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
44	U.S. Environmental Protection Agency	C	Wetland 14: Table 4-14 proposes 0.40 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.

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		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
45	U.S. Environmental Protection Agency	C	Wetland 15: The majority of this large wetland appears to be located west of the proposed sidewalk, and outside of the proposed roadway. Table 4-14 proposes 0.38 acre of impact to this wetland. The Environmental Constraints pages show that the sidewalk may require partial impact to this wetland. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
46	U.S. Environmental Protection Agency	C	Wetland 16: Table 4-14 proposes 0.28 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
47	U.S. Environmental Protection Agency	C	Wetland 17: Table 4-14 proposes 0.68 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

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48	U.S. Environmental Protection Agency	C	Wetland 18: This wetland, located at the northeast corner of Route 47 and Foster Road, is proposed to be partially impacted. Table 4-14 proposes 0.08 acre of impact to this wetland. However, there is no roadway or sidewalk/path proposed here, so it is unclear why this wetland is proposed to be partially impacted. This impact appears fully avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
49	U.S. Environmental Protection Agency	C	Wetland 19: Table 4-14 proposes 0.80 acre of impact to this wetland. Only a small portion of wetland appears to be impacted by pavement, and the majority appears to be west of the proposed sidewalk, so it is unclear why 0.80 acre of impact to this wetland is proposed. Wetland acreage inside the ROW outside of construction limits should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
50	U.S. Environmental Protection Agency	C	Wetland 20: This wetland is bisected by Route 47, but was not broken into Wetland 20 west and Wetland 20 east. Table 4-14 proposes 0.34 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement, the shared use path, and the sidewalk. However, the wetland east of the shared use path within the proposed ROW and the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
51	U.S. Environmental Protection Agency	C	Wetland 21: Only a small portion of this large (12+ acre) wetland is located within the proposed ROW. Table 4-14 proposes 0.03 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.

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		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
52	U.S. Environmental Protection Agency	C	Wetland 66: Only a small portion of this large (1.64 acre) wetland is located within the proposed ROW. Table 4-14 proposes 0.05 acre of impact to this wetland. The Environmental Constraints pages show that this wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
53	U.S. Environmental Protection Agency	C	Wetland 25: Table 4-14 proposes a complete impact (0.57 acre) to portion of this wetland located within the ROW. The Environmental Constraints pages show that the shared use path may require partial impact to this wetland; however, wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
54	U.S. Environmental Protection Agency	C	Wetland 67: Only a small portion of this wetland is located within the proposed ROW. Table 4-14 proposes 0.04 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
55	U.S. Environmental Protection Agency	C	Wetland 28: Table 4-14 proposes a complete impact (0.57 acre) to this wetland, which is located within the proposed ROW. The Environmental Constraints pages show that this wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.

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		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
56	U.S. Environmental Protection Agency	C	Wetland 32 west: Table 4-14 proposes 0.15 acre of impact to this wetland. The Environmental Constraints pages show that the proposed sidewalk may require partial impact to this wetland. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Other impacts appear to be proposed due to installation of a bioswale. As noted earlier, natural wetlands should not be used for pollution prevention devices or impacted to construct flood storage areas. The location of the proposed bioswale should be modified to fully avoid this impact. Further minimization of this impact to Wetland 32 west appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
57	U.S. Environmental Protection Agency	C	Wetland 32 east: Table 4-14 proposes 0.50 acre of impact to this wetland. The Environmental Constraints pages show that the proposed shared use path may require partial impact to this wetland. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Other impacts appear to be proposed due to installation of a bioswale. As noted earlier, natural wetlands should not be used for pollution prevention devices or impacted to construct flood storage areas. The location of the proposed bioswale should be modified to fully avoid this impact. Further minimization of this impact to Wetland 32 east appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
58	U.S. Environmental Protection Agency	C	Wetland 33 west (ADID): Table 4-14 proposes 0.75 acre of impact to this wetland. The Environmental Constraints pages show that minor impacts appear necessary to install pavement and sidewalk. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.

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		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
59	U.S. Environmental Protection Agency	C	Wetland 33 east (ADID): Table 4-14 proposes 0.47 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
60	U.S. Environmental Protection Agency	C	Wetland 68: Only a small portion of this wetland is located within the proposed ROW. Table 4-14 proposes 0.01 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
61	U.S. Environmental Protection Agency	C	Wetland 45 (ADID): Table 4-14 proposes 0.83 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
62	U.S. Environmental Protection Agency	C	Wetland 44: Only a small portion of this large wetland is located within the proposed ROW. Table 4-14 proposes 0.05 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.

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		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
63	U.S. Environmental Protection Agency	C	Wetland 46 west (ADID): Table 4-14 proposes 0.44 acre of impact to this wetland. The Environmental Constraints pages show that minor impacts appear necessary to install pavement and sidewalk. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
64	U.S. Environmental Protection Agency	C	Wetland 46 east (ADID): Table 4-14 proposes 0.54 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
65	U.S. Environmental Protection Agency	C	Wetland 47: Only a small portion of this wetland is located within the proposed ROW. Table 4-14 proposes 0.06 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
66	U.S. Environmental Protection Agency	C	Wetland 48: This wetland is identified as being 0.36 acre in size and extending outside the proposed ROW. The Environmental Constraints pages show that some impacts appear necessary to install pavement and sidewalk, but this wetland clearly extends both outside of (west of) the proposed ROW as well as the Environmental Survey Request (ESR) limits. Table 4-14 proposes a complete impact (0.36 acre). Wetland west of the proposed sidewalk within the proposed ROW should not need to be impacted. Additionally, the size acre of this wetland must be incorrect in Table 4-14 as it clearly extends outside the ROW and the ESR limits. Please rectify acreage of the wetland size and impact. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
67	U.S. Environmental Protection Agency	C	Wetland 49: This wetland is bisected by Route 47, but was not broken into Wetland 49 west and Wetland 49 east. Table 4-14 proposes 2.38 acres of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement, the shared use path, and the sidewalk. However, the wetland east of the shared use path within the proposed ROW and the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
68	U.S. Environmental Protection Agency	C	Wetland 52: This wetland is bisected by Lucas Road, but was not broken into Wetland 52 north and Wetland 52 south. Table 4-14 proposes a complete impact (0.55 acre) of this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, wetland acreage remaining east of the shared use path (south of Lucas Road) and wetland acreage remaining north of Lucas Road within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
69	U.S. Environmental Protection Agency	C	Wetland 53: Table 4-14 proposes 0.84 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the shared use path. However, the wetland east of the shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
70	U.S. Environmental Protection Agency	C	Wetland 54: Table 4-14 proposes 1.16 acres of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement and the sidewalk. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
71	U.S. Environmental Protection Agency	C	Unidentified wetland known as ADID K669: Only a small portion of this 17+ acre wetland is located within the proposed ROW. Table 4-14 proposes 0.12 acre of impact to this wetland. The wetland does not appear to be in any locations where pavement or fill is necessary. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
72	U.S. Environmental Protection Agency	C	Wetland 27 (ADID): Table 4-14 proposes 0.19 acre of impact to this wetland. The Environmental Constraints pages show that the proposed sidewalk may require partial impact to this wetland. However, the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Other impacts appear to be proposed due to installation of a bioswale. As noted earlier, natural wetlands should not be used for pollution prevention devices or impacted to construct flood storage areas. The location of the proposed bioswale should be modified to fully avoid this impact. Further minimization of this impact to Wetland 27 appears feasible. This should be clarified in the Final EA and before final design and permitting.

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#	FEDERAL AGENCY		COMMENT/RESPONSE
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
73	U.S. Environmental Protection Agency	C	Wetland 64: This wetland appears contained within the proposed ROW, but is outside of (south of) the proposed shared use path. However, a complete impact (0.13 acre) is proposed. There is no clear indication why this fill is required. This impact appears to be completely avoidable. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
74	U.S. Environmental Protection Agency	C	Wetland 65: Table 4-14 proposes a complete (0.23 acre) impact to this wetland. Minor impacts appear necessary for pavement and the shared use path, but wetland south of the shared use path within the proposed ROW should not need to be impacted. Additionally, this wetland extends outside of the proposed ROW, so full impacts would not be necessary as this wetland extends outside the project limits. Further minimization of this impact to Wetland 65 appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
75	U.S. Environmental Protection Agency	C	Wetland 42 (ADID): Table 4-14 proposes 0.08 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install the sidewalk. However, the wetland south of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
76	U.S. Environmental Protection Agency	C	Wetland 43 - This wetland is bisected by Route 176, but was not broken into Wetland 43 north and Wetland 43 south. Table 4-14 proposes 0.73 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement, the shared use path, and the sidewalk. However, the wetland north of the shared use path within the proposed ROW and the wetland south of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
77	U.S. Environmental Protection Agency	C	Section 3 Wetland 56 West (ADID): Table 4-14 proposes 0.46 acre of impact to this wetland. The Environmental Constraints pages show that minor impacts appear necessary for pavement and sidewalk. However, the wetland west of the proposed sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
78	U.S. Environmental Protection Agency	C	Wetland 56 east (ADID): Table 4-14 proposes 0.55 acre of impact to this wetland. The Environmental Constraints pages show that minor impacts appear necessary for the shared use path. However, the wetland east of the proposed shared use path within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
79	U.S. Environmental Protection Agency	C	Wetland 57 (ADID): This wetland is bisected by Route 47, but was not broken into Wetland 57 west and Wetland 57 east. Table 4-14 proposes 1.28 acres of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary to install pavement, the shared use path, and the sidewalk. However, the wetland east of the shared use path within the proposed ROW and the wetland west of the sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.

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#	FEDERAL AGENCY		COMMENT/RESPONSE
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
80	U.S. Environmental Protection Agency	C	Wetland 58: Table 4-14 proposes 0.05 acre of impact to this wetland. The Environmental Constraints pages show that minor impacts appear necessary pavement and sidewalk construction, but the wetland west of the proposed sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
81	U.S. Environmental Protection Agency	C	Wetland 59 (ADID): Table 4-14 proposes 0.68 acre of impact to this wetland. The Environmental Constraints pages show that some impacts appear necessary for pavement and sidewalk construction, but the wetland west of the proposed sidewalk within the proposed ROW should not need to be impacted. Further minimization of this impact appears feasible. This should be clarified in the Final EA and before final design and permitting.
		R	For the purposes of the Environmental Assessment, wetland impacts were considered within the limits of the proposed right-of-way. As can be seen in the Preferred Alternative renderings, there are ditches located outside of the sidewalk and shared-use path. Construction of the slopes and ditches would impact wetlands within the proposed right-of-way. Further minimization efforts will be undertaken in Phase II during the permitting process.
82	U.S. Environmental Protection Agency	C	<p>WILDLIFE CROSSINGS</p> <p>The Draft EA discusses potential installation of wildlife crossings on page 72, stating, "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. 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. "</p> <p>Recommendation: Small mammal and amphibian wildlife crossings should be constructed so that they are dry crossings, not "relatively dry." This should be reflected in the Final EA.</p>
		R	"Relatively dry" is a more accurate description of the conditions of a culvert environment.

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#	FEDERAL AGENCY		COMMENT/RESPONSE
83	U.S. Environmental Protection Agency	C	<p>Page 72 includes specific considerations for wildlife crossings to promote wildlife movement. Table 4-8 lists potential crossing locations. EPA concurs that bridges and upland culvert crossings are critically important, and also supports the installation of upland (dry) wildlife culverts adjacent to proposed hydraulic culvert crossings in the areas noted as wildlife corridors as noted in Table 4-8.</p> <p>Recommendations: In addition to noted locations, EPA recommends installation of upland wildlife corridor culverts at the following site:</p> <ul style="list-style-type: none"> o Section 2: Connecting ADID Wetland 46 east to ADID Wetland 46 west. This area was noted as a wildlife area in the Draft EA, and is supported by comments made on page 69 of the EA: "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. 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."
		R	<p>An additional potential wildlife crossing was recommended at Wetland 46, which is included in the errata on page 3 and the Environmental Constraints Map. However, this will be verified during development of the detailed design in Phase II.</p>
84	U.S. Environmental Protection Agency	C	<p>While wildlife crossings have been considered and potential locations identified, the Draft EA did not include any information on additional measures to enhance/create habitat on either side of the wildlife crossing or features that would serve to direct species towards the crossings and away from the roadway.</p> <p>Recommendations: EPA recommends that wildlife crossings, where appropriate, include fencing along both sides of the road to direct animals to the crossing and to prevent animals from accessing the road. The fencing should not block entrances to crossing structures. Suitable habitat for species should be considered on both sides of the crossing structure. Crossing structures should be monitored for, and cleared of, obstructions such as detritus or silt blockages that impede movement. Site-specific landscape re-vegetation plans should be considered at any locations where wildlife crossings are incorporated into the design. Fencing and funneling techniques should be included in crossing design and in mitigation commitments. Wildlife crossings may not be successful without installation of fencing to direct animals to cross at specific wildlife crossing locations. These updates should be reflected in the Final EA.</p>
		R	<p>A design consideration has been included in the Errata on pages 2 and 3 to evaluate concepts, such as fencing, where feasible and appropriate along the roadway, to help guide animals towards proposed wildlife crossing locations.</p>

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
85	U.S. Environmental Protection Agency	C	<p>Additionally, EPA noted the following types of impacts in the Environmental Constraints figures for Section 3:</p> <ul style="list-style-type: none"> o UNT to Kishwaukee River (Sheet 14) - crossing o Kishwaukee River (Sheet 14) - new culvert crossing (relocation of current crossing location) o Kishwaukee River (Sheet 14)- relocation on S side of Route 47 o UNT to Kishwaukee River (Sheet 14)- relocation on N side of Route 47 <p>Recommendations: All narrative information summarizing the number and type of crossings and stream impacts throughout the project (by Section) should be corrected in the Final EA. Table 4-11 in the Final EA should be updated to provide additional information on each type of stream impact, a description of the impact, and a reference to where in the Environmental Constraints figures the crossing is located. The Environmental Constraints figures should be updated to include information on type of stream impact, and detail/shade specific impacts such as channel centerline relocations, new crossings, crossing extensions, etc.</p>
		R	<p>For the purposes of the comparing and evaluating alternatives, only IDNR-OWR jurisdiction crossings were identified. Therefore, the description of stream crossings in Chapter 3 refer to major crossings that fall under the IDNR-OWR jurisdiction. However, all alternatives crossed all of the same stream crossings. In Chapter 4, all stream crossings are discussed for the purposes of the environmental process when documenting the potential impacts of the Preferred Alternative.</p> <p>The Errata includes an updated table with an additional column(s) providing further discussion to more clearly explain the reason and details on each of the stream impacts. The updated table also includes the roadway alignment stationing where the crossing occurs to eliminate confusion on the location and to compare the table with the Environmental Constraints exhibit.</p>
86	U.S. Army Corps of Engineers	C	<p>The green shading in the median in Exhibit 4-1 should be changed as it is similar to the shading for the bioswales and could cause confusion;</p>
		R	<p>A revised exhibit with a non-conflicting color scheme has been included in the Errata.</p>
87	U.S. Army Corps of Engineers	C	<p>The bioswale locations in Exhibit 4-1 should not be located within delineated wetlands or streams. Exhibit 4-1 should be revised accordingly for the final EA;</p>
		R	<p>The exhibit has been revised showing potential new locations as necessary. However, since the wetland impacts were considered to be everything within the ROW, those areas are proposed ditch locations where BMPs or bioswales are proposed; there may no longer be a functioning wetland due to construction disturbance. The design engineers will consider where regrading for the roadway and ditch work will take place while minimizing any impacts. However, there will be situations where the wetland will be graded out as part of the roadway and/or ditch construction, but these locations may be replaced with a bioswale.</p>

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#	FEDERAL AGENCY		COMMENT/RESPONSE
88	U.S. Army Corps of Engineers	C	The final EA should provide additional information on avoidance and minimization. Many impacts are unavoidable due to the widening of the roadway. It is also understood that the engineering plans have not be sufficiently developed to perform a complete avoidance and minimization analysis. However, the EA did include measures such as retaining walls that will be implemented in areas to minimize impacts. In particular, most or all of the impacts to wetland 6 are the result of a proposed compensatory storage basin. The final EA should clearly describe why adjacent upland areas could not be utilized to avoid the wetland impact. The final EA should include a discussion of avoidance and minimization for all wetlands to be impacted, individually;
		R	For the purpose of the EA, the wetlands located with the existing and proposed ROW limits were considered to be impacted and thus should be considered a worst-case scenario. Individual wetland impact minimization discussion will be added. As the project moves through the design phase, further wetland impact and avoidance minimization efforts are anticipated to be realized. Final ROW needs and compensatory storage will be evaluated. Furthermore, additional areas will be considered for retaining walls to minimize impacts; however, we need additional information such as soil borings and construction cost estimates. Compensatory storage is required near the location of Wetland 6 due to topographic and drainage patterns and because the storage is required to be adjacent to the Creek to meet regulatory requirements. Preliminary design of the compensatory storage site near Wetland 6 was revised to avoid impacts to this wetland.
89	U.S. Army Corps of Engineers	C	The impact to wetland 8 will result in a remaining portion that is not considered viable. The final EA should identify this wetland as completely impacted for purposes of mitigation;
		R	Table 4-14 was updated to show complete impact to Wetland 8. However this site may be re-visited during design if minimization can be realized.
90	U.S. Army Corps of Engineers	C	The final EA did not include the information on best management practices (BMPs) contained in a March 2, 2015 letter from IDOT. The letter discussed the attempts to retain the first 1 inch of runoff from new impervious surfaces and 1.25 inches for areas discharging to high quality aquatic resources. The target was not attained in all areas. Additional information should be provided with regard to limitations in meeting the target. In particular, the letter indicated that it would not be desirable to expand bioswales to 30 or 40 feet wide in order to meet the standard due to the presence of standing water near the road and maintenance concerns. At this size, the construction of a basin should be considered rather than a bioswale. The letter did not fully expound the potential to acquire additional right-of-way (ROW) for the purposes of providing water quality BMPs in an effort to meet the target. The final EA should include the information from the March 2, 2015 letter from IDOT as well as the additional discussion on acquiring additional ROW for BMPs;

RESPONSE TO EA COMMENTS – FEDERAL AGENCIES

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#	FEDERAL AGENCY		COMMENT/RESPONSE
		R	Correspondence with the USACE include a letter regarding Best Management Practices (BMPs) from April 21, 2014, the subsequent meeting on October 14, 2014 with the USACE, the IDOT response letter dated March 2, 2015 and a follow-up meeting on June 18, 2015. The commitments from those meetings and response letter will be followed with further coordination and discussions during the permit process which may include the USACE clarification and guidance from December 2014. This is documented in Appendix A and on pages 4 and 5 of the Errata.
91	U.S. Army Corps of Engineers	C	The final EA should state that opportunities to mitigate for stream impacts in-kind will be investigated.
		R	The Errata now states on pages 4 and 9 that in-kind stream mitigation will be investigated.
92	U.S. Army Corps of Engineers	C	The original delineation report was provided but the subsequent addendums were not. Also, the Corps has not completed an approved jurisdictional determination for the project. Therefore, the EA should not distinguish between jurisdictional and isolated wetlands. These designations were likely based on the opinions of the delineators and were not verified by the Corps. The final EA should indicate that the Corps has not completed an approved jurisdictional determination and the references to isolated wetlands should be removed;
		R	The Environmental Assessment (EA) report acknowledges on page 97 the jurisdictional status was suggested by the INHS. As a reminder, the construction phase of this project is currently unfunded. Wetland delineations will be updated when funding is identified for construction and the timeline for permitting becomes apparent. Then a jurisdiction determination (JD) will be requested from the USACE. The INHS references to jurisdiction and isolated wetlands have been deleted.
93	U.S. Army Corps of Engineers	C	Additional coordination should occur with the U.S. Fish and Wildlife Service (USFWS) regarding wetlands with potential habitat for the eastern prairie fringed orchid (EPFO). Wetland 12 had a C value of 4.0, so the list of associate species should be checked to determine if a survey for the EPFO is needed. Additionally, wetlands 20, 27, 34, 40, 43 were all of at least moderate floristic quality and were greater than 2 acres in size, some much larger. The floristic quality assessment likely only included plant species within the environmental survey limits. Since these wetlands are of at least moderate quality and the surveyed area generally covered only a portion of a much larger wetland, it is possible that these wetlands would in fact meet the orchid survey requirements if the entire wetland were studied. Therefore, the Illinois Department of Transportation (IDOT) should coordinate with USFWS to determine the need for an EPFO survey. The final EIS should include a statement on the need for an EPFO survey;
		R	The EPFO survey was conducted in summer 2015 for wetlands #58/59, which was agreed upon in the agency coordination meeting on June 8, 2015. The INHS Botanical Survey Report dated October 2015, with field surveys from June and July of 2015, documented that no EPFOs were found at these wetland sites. This is documented on page 3 of the Errata.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENT

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#	LOCAL GOVERNMENT		COMMENT/RESPONSE
94	Village of Huntley - Timothy Farrell, Director of Public Works and Engineering	C	I just want to be sure that I go on record to state the Village's interest in the area from Reed Road, north of Reed Road, Rainsford Road right now is it showing as two through lanes. I want to be sure that I go on record with the Village's interest that we would like a dedicated right-turn lane on Rainsford Road.
		R	The preferred alternative has been revised to include a dedicated northbound to eastbound right-turn lane at Rainsford Drive.
95	Lake in the Hills - Paul Mulcahy, Village President	C	Wildlife Crossing near Conley Road - This crossing should be relocated north of Conley Road. The Village has a boundary agreement up to Conley Road. Our future plans include commercial and residential development near the corner where the crossing is proposed. Relocating the crossing to the north so it outlets in the wetland will greatly increase the probability that wildlife will use it. If commercial or residential properties occupy the southeast corner, it is extremely unlikely that the wildlife crossing will serve its intended purpose.
		R	The proposed improvements have been revised to show a potential wildlife crossing near Conley Road to be located north of its intersection with Illinois Route 47.
96	Lake in the Hills - Paul Mulcahy, Village President	C	Future Ackman Road Extension - The plans acknowledge a future connection of Ackman Road on the east side of Route 47, but have incomplete plans for its incorporation. Left turn lanes are included, but deceleration and acceleration lanes for the future connection are not a part of this plan. It is important to have this work completed as part of this project to minimize rework and unnecessary construction impacts in the future. The Village previously supplied IDOT the proposed configuration for the Ackman Road extension.
		R	The median breaks have been designed to accommodate future improvements, such as including left-turn channelization for planned intersections. Acceleration and deceleration lanes would not be constructed until the proposed intersection improvements are funded. At the intersection of Illinois Route 47 and Ackman Road, there is a proposed southbound U-turn lane that can be converted in the future to a left-turn lane and a northbound right-turn lane can be accommodated within the proposed shoulder.
97	Lake in the Hills - Paul Mulcahy, Village President	C	Access to Parcel on the SE Corner of Conley Road and Route 47 - A right in / right out access needs to be added midway between the intersection with Conley Road and the next left turn access to the south (approximately 467+00). This is important to provide adequate access to commercial development which the Village plans will be placed along the frontage in that area. The right in / right out will reduce the traffic load at the intersections where left turns are permitted.
		R	It is the responsibility of the developer, when the development occurs, to conduct a traffic impact analysis and request a permit from IDOT to install a new driveway along Illinois Route 47.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	LOCAL GOVERNMENT		COMMENT/RESPONSE
98	McHenry County Board Member - Tina Hill	C	I'm very excited about this project; however, I am concerned about the long leg of four lanes with no stoplights, especially at the intersections of Lucas and Ballard Road. So I would like that studied some more. I would like to see some data and explanation on that. Otherwise, full support.
		R	<p>The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. The intersections of Illinois Route 47 with Lucas Road and with Ballard Road did not meet the warrants for a traffic signal. These intersections will remain unsignalized in the proposed conditions. Please find enclosed information on the analysis.</p> <p>The Manual on Uniform Traffic Control Devices (MUTCD) describes the process of studying the traffic conditions, pedestrian characteristics and physical characteristic of a location to determine if the installation of a traffic signal may be warranted. While there are eight warrants described in the MUTCD, only three warrants can be evaluated for IL 47 because of its designation as a Strategic Regional Arterial. These are Warrant 1 – Condition A (Minimum Vehicular Volume), Warrant 1 – Condition B (Interruption of Continuous Traffic), and Warrant 7 (Crash Experience).</p> <p>The warrant analyses for the IL Route 47 and Ballard Road found that only 2 of the required 8 hours met either Condition A or B; therefore Warrant 1 was not met. Under Warrant 7, only 4 of the required 8 hours met the pedestrian condition and zero of the required 8 hours for the traffic volume condition of this warrant. The warrant analysis for the IL Route 47 and Lucas Road intersection did not meet the required 8 hours for Warrant 1 (only 4 hours met) or Warrant 7 (only 5 hours met); therefore, the analysis determined that a traffic signal is not warranted at this intersection.</p>
99	McHenry County Board Member - Tina Hill	C	Need a stoplight at Ballard and Lucas.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
100	McHenry County Board Member - Robert Nowak	C	I love the project. It's some great ideas and they are not restricting access to the property along 47, which is really nice. And it really will speed up commerce and products produced in McHenry County.
		R	Thank you for your comment and continued support of this project.
101	McHenry County Board Member - Mike Scala	C	I have a concern in the area by the personal landing strip that the soil conditions there are very poor. How would the State intend on addressing that soil, poor soil conditions?

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	LOCAL GOVERNMENT		COMMENT/RESPONSE
		R	Thank you for your comments pertaining to the soil conditions along the corridor. During Phase II (final design) of the project, soil borings and analysis will be performed. The results of this analysis will influence the detailed design of the improvements, including the pavement design.
102	McHenry County Board Member - Mike Scala	C	And then also at Ballard Road, looking to see if a light could be placed there.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections, including Ballard Road, within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
103	McHenry County Board Member - Mike Scala	C	I would like to see the roadway moved further to the east, north of Foster Road to Craig Woods Golf Course. And moving it the 40 feet further to the east would not displace any property from the homeowners, you would just be purchasing more farmland. So it should be, theoretically, cheaper for acquisition of land.
		R	Your comments regarding the proposed alignment have been noted. The proposed alignment of Illinois Route 47 is designed to balance impacts to adjacent property owners, environmental resources, and to meet necessary design standards to maintain safety and mobility along the corridor.
104	McHenry County Conservation District	C	The MCCD is familiar with the wetland complexes along the project corridor. They mention the desire for proper BMPs to be implemented to reduce vegetation and wildlife impacts in the project area. They also state they have documented Blanding's turtle habitat in the Pleasant Valley sight, which is downstream from the project area, thus water quality is a concern. The small wetland complexes near the roadway should also be considered as Blanding's habitat. The MCCD also would like to work collaboratively with IDOT as they have in the past, on the mitigation requirements.
		R	Thank you for your comments and attending the public hearing. IDOT is committed to providing BMPs to help protect the water resources of the IL 47 corridor. As shown at the project workshops, the public hearing, and in the Environmental Assessment, BMPs will be an integral component of the roadway drainage system. This will not only reduce impacts to the streams, but to the adjacent wetlands as well as downstream wetland habitats. The Department is aware of Blanding's turtles documented in the area; however, we have not documented any Blanding's turtles in our recent surveys (including the summer of 2015) directly adjacent to the IL 47 corridor. Surveys for the Blanding's turtle and for the Eastern Prairie Fringed Orchid (in the higher quality wetlands) did not indicate the presence of either of these species; however we do understand the potential is still there. Your letter also indicated the desire to work collaboratively on mitigation as our agencies have in the past. Although we cannot commit to definitive plans at this stage of the IL 47 project, the Department wishes to continue dialogue to develop mitigation opportunities.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	LOCAL GOVERNMENT		COMMENT/RESPONSE
105	McHenry County Convention and Visitors Bureau - Jaki Berggren, Executive Director	C	As the destination marketing organization for McHenry County. Visit McHenry County, supports the proposed expansion of Rt 47. This project would allow for easier, quicker and safer access to our county's many attractions, shops and restaurants. The proposed multi use path running along the entire Rt 47 project would greatly enhance our ability to draw and cyclists into our county to enjoy riding in the country and visiting our towns, restaurants, shops and activities along the path. This proposed project would help to grow the local visitor economy of McHenry county and all of the communities with the County.
		R	Thank you for your comment and continued support of this project.
106	McHenry County Division of Transportation - Joseph Korpalski	C	The McHenry County Division of Transportation attended the Illinois Route 47 Public Hearing on March 12, 2015 and is very supportive of the project. In the County's 2040 Long Range Transportation Plan, this project has been identified as one of the top priorities for the entire County.
		R	Thank you for your comment and continued support of this project.
107	McHenry County Division of Transportation - Joseph Korpalski	C	The County requests that the crash data be updated to include analysis of more recent years as your data presented at the public hearing only went up to 2012. Specifically the intersections of Illinois Route 47 and Illinois Route 176 are of more concern since we have observed an increase in the frequency and severity of crashes at these intersections since the capacity improvements were made in 2012. With no construction funding identified for this project in the near future, an understanding of the safety in this corridor is important so that interim improvements can be identified if necessary.
		R	<p>Review of the crash history indicates a pattern of left turn crashes at both intersections. The number of left turn crashes has stayed consistent from 2009 through 2014 (3 crashes/year for the north junction and 4 crashes/year for the south junction). Changing the left turn phasing from protected/permitted to protected-only should reduce the number of left turn crashes. However, in order to accommodate the left turn on green arrow only phasing the left turn bays need to be either extended or a second left turn lane must be provided to accommodate the left turning volumes (450+ vehicles per hour during the peak hour at either intersection in the year 2018). Unfortunately, the left turn lane at the south junction of Illinois Route 47 and Illinois Route 176 cannot be extended without impacting the geometrics of the intersection of Illinois Route 47 and Pleasant Valley Road.</p> <p>The Bureau of Traffic Operations is currently making field adjustments to the traffic signal operations to improve the operation of the left turn phasing at both junctions of Illinois Route 47 and Illinois Route 176. We will continue to monitor.</p>

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	LOCAL GOVERNMENT	COMMENT/RESPONSE
108	City of Woodstock - Paul R. Ruscko, Public Works Director	C The City of Woodstock supports the recommended preferred alternative that was presented at the public hearing on March 12, 2015.
		R Thank you for your comment and continued support of this project.

RESPONSE TO EA COMMENTS – INDIVIDUALS

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All comments listed below have been incorporated into the project record.

#	INDIVIDUAL		COMMENT/RESPONSE
109	Busch, Karen	C	Would like to ask for consideration for a traffic light to be placed at Rt.47 and Foster/North Union Rd. Increase traffic warrants a light at this intersection.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
110	Bytnar, Steve	C	Okay, we have a bike path from Reed Road all the way to 14, but then how do we get through Huntley?
		R	The proposed shared-use path connects to an existing shared-use path and sidewalk network at Reed Road. The existing shared-use path runs adjacent to Reed Road to the east, and the existing sidewalk network continues along IL 47 to the south through Huntley. For more information on the existing and planned bicycle accommodations in Huntley, please refer to the Huntley Park Districts Park and Pathway Map (October 30, 2009).
111	Bytnar, Steve	C	Like the plan and I like the idea of the sidewalk and the multi-path, one on each side of the road. But my question is: If this is not funded, then what would start to go first? Would we lose the sidewalk or the multi-use path, you know, when it gets down to the monies?
		R	The design phase for this project is currently funded and will begin upon completion of the current Phase I. However, funding for land acquisition, construction, and construction engineering is not currently included in the Department's Fiscal Year 2016-2021 Proposed Highway Improvement Program. However, this improvement will be considered for inclusion in future Programs among similar improvement types throughout the region. Accommodations for pedestrians and bicyclists are required as part of IDOT's Complete Streets policy. The implementation of sidewalk and shared-use path is contingent upon cost participation and acceptance of maintenance responsibilities by the local municipality. Without local agency cost participation, the Department will consider a means to accommodate bicyclist and pedestrian facilities in the future. This will likely include installing a graded shelf where the local agency could construct the accommodation in the future.
112	Carlson, Eleanor	C	My Property is on the corner of North rt 176 and rt 47. A good chunk of it has already been taken from us to improve the corner. I hope that your plans do not include taking more of my property, rendering it basically useless.
		R	At this time, additional right-of-way would need to be purchased from your property on the east side of Illinois Route 47 to construct the proposed improvements. The distance between the existing right-of-way and the proposed right-of-way at your property is 35 feet to accommodate the wider roadway, space for a sidewalk, and the outside ditch. The edge of the pavement will be located approximately 30 feet closer to your property. Please see Sheet 10 of Exhibit 4-1 of the Errata.
113	Celentano, Andrew	C	Provide the ability to pull buses over in the future along 47, especially when you are going to get Amtrak down here.
		R	The Department has been in coordination with Pace Suburban Bus Service throughout the duration of this study. Based on that coordination, accommodations for transit service along Illinois Route 47 are not incorporated into the planned improvement of IL 47 111 because existing bus service does not exist along the corridor; based on our coordination with Pace, future service is not planned at this time.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
114	Celentano, Andrew	C	Anticipate Amtrak station impact
		R	As part of the Phase I study, we evaluated existing, projected No Build and projected Build traffic conditions along Illinois Route 47 between 113 Reed Road and U.S. Route 14. The projected No Build conditions are based on the Chicago Metropolitan Agency for Planning's traffic projections in 2040, which include projected changes in land use, but assumed the corridor would remain a two-lane facility. The 114 proposed improvements are designed to accommodate this projected growth in traffic volumes. The projected Build conditions is also based on 2040 traffic volumes, but assumes Illinois Route 47 is widened to a four-lane facility. This scenario evaluates whether or not t115he widened facility can accommodate the projected growth, which it is expected to. The proposed Amtrak Station in Huntley, which is currently on hold due to the status of the state's spending; however, the evaluations of 2040 No Build and 2040 Build Conditions account f116or future developments and changes in land use, such as a new train station.
115	Celentano, Andrew	C	Provide the ability to pull buses over future
		R	The Department has been in coordination with Pace Suburban Bus Service throughout the duration of this study. Based on that coordination, accommodations for transit service along Illinois Route 47 are not incorporated into the planned improvement of IL 47 because existing bus service 118does not exist along the corridor; based on our coordination with Pace, future service is not planned at this time.
116	Celentano, Andrew	C	I didn't see any stoplights. Are there going to be any added stoplights along between Reed and 14?
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
117	Celentano, Andrew	C	Will there be additional lights
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
118	Celentano, Andrew	C	Second, you are going to have the developments that they are talking about at 176 and 47. It's supposed to be a large -- from what I heard anyway, it's a large shopping area. I would submit that you add two feet to the multi-purpose or areas for bypasses for folks in wheelchairs or even for golf carts. Sun City, I have seen folks in golf carts driving on 47, very short, to go into the Jewel. That may get expanded. If they don't have the facility to do that, they are going to drive on 47. Not a good idea.
		R	The shared-use path is designed to be 8 feet wide in order to minimize impacts to environmental resources along IL 47. Also, a sidewalk is planned for the other side to accommodate walking pedestrians. Bicycle and pedestrian facilities are designed to meet Americans with Disabilities Act (ADA) standards. It should also be noted that motorized vehicles are not permitted on the shared-use path or sidewalks.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
119	Celentano, Andrew	C	Add 2 ft. to multi-purpose or areas for bypasses consider use of golf carts
		R	The shared-use path is designed to be 8 feet wide in order to minimize impacts to environmental resources along IL 47. Also, a sidewalk is planned for the other side to accommodate walking pedestrians. Bicycle and pedestrian facilities are designed to meet Americans with Disabilities Act (ADA) standards. It should also be noted that motorized vehicles are not permitted on the shared-use path or sidewalks.
120	Celentano, Andrew	C	I don't know if you guys are anticipating the growth around 176 and 47 for turn lanes and all the rest of that. I'm not an expert on this stuff, but I think that's got to be affecting 47 because of that growth. I don't know if you guys have anticipated the growth that may happen if the Amtrak station goes in in Huntley, because if it does, in fact, then you may get a lot of traffic up and down 47 with buses or even with passenger vehicles to get to and from the train station maybe to go up to Woodstock or to go up to Lake Geneva.
		R	As part of the Phase I study, we evaluated existing, projected No Build and projected Build traffic conditions along Illinois Route 47 between Reed Road and U.S. Route 14. The projected No Build conditions are based on the Chicago Metropolitan Agency for Planning's traffic projections in 2040, which include projected changes in land use, but assumed the corridor would remain a two-lane facility. The proposed improvements are designed to accommodate this projected growth in traffic volumes. The projected Build conditions is also based on 2040 traffic volumes, but assumes Illinois Route 47 is widened to a four-lane facility. This scenario evaluates whether or not the widened facility can accommodate the projected growth, which it is expected to.
121	Field, Kerry	C	Consideration should be given to installing a traffic signal at IL Rte 47 and Foster/N.Union Rd. There is a lot of farm equipment that crosses IL 47 at this location.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
122	Gieseke, Dave	C	Need entrance to Rt 47 at Conley Rd. from my property so I can go both ways from my property. No need for sidewalk.
		R	In order to maintain half-mile spacing between median breaks along the southern section of the route, a median break will not be included at this location. Vehicles can access these properties by completing a u-turn movement either at Conley Road or at the median break a half mile south of Conley Road.
123	Gotteno, J.	C	Cutoff Rt 176 E at the North Leg of 47/176. Force 176 traffic South on Swanson Road to Pleasant Valley. Swing Pleasant Valley South to align with existing 176 Eastern leg. This will eliminate one intersection of 47 at 176.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
		R	This study evaluated the realignment of IL 176 split intersections to provide a single stand alone intersection. Upon completion of the evaluation, it was determined that the chosen alternative provided better operations, less wetland impacts, stream crossing impacts, adverse travel, constructions costs, right-of-way, and displacements than each of the single intersection alternatives considered. In addition, a separate Phase I study is underway to evaluate the re-alignment of Pleasant Valley Road to the Intersection of Illinois Route 47 and the south leg of Illinois Route 176. This study proposes a four-legged intersection at Illinois Route 47 and Illinois Route 176 with Pleasant Valley Road creating the west leg of the intersection. The existing intersection of Pleasant Valley Road at Illinois Route 47 would be eliminated.
124	Hamilton, Kirk	C	I strongly urge the planners to consider a traffic light or overpass at Rt. 47 and Foster/North Union Rd. Our farms on both sides of Rt. 47 and we routinely transport tractors, implements and feed trucks across this intersection. We have been farming this property since 1980 and the increase in traffic has made this an increasingly dangerous situation. For the safety of both the public and farmers, a traffic light at this location is merited.
		R	Currently, the Illinois Route 47 and Foster/Union Road intersection does not meet traffic signal warrants. Accommodations to provide safe movement of farm equipment across the roadway will be provided via the U-turns at various median breaks and intersections along the corridor.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
125	Havlir, Daniel M.	C	<p>Mr. Sullivan owns a vacant 20 acre parcel on the east side of Route 47 approximately 1300 ft. north of Rainsford Drive in Huntley. There are no specific plans at this time for the proposed development of the Sullivan parcel. However, Mr. Sullivan is aware that IDOT is in the process of conducting studies and developing plans for the improvement of IL 47 from Reed Road to U.S. 14. Mr. Sullivan or his representatives have attended several of the (DOT Workshops & Meetings relative to the project.</p> <p>We have expressed our concern at several of these workshops that a median cut for a future full access point was not shown at the southerly property line of the Sullivan parcel on the proposed layout plans for IL 47. This access point is at a location that could also serve as the access point for a vacant parcel immediately south of the Sullivan property, and also could serve as the access point for two vacant parcels on the west side of IL 47. Specifically, the centerline of this full access point would be approximately 1300 ft. north of Rainsford Drive and 1300 ft. south of Talamore Drive. We noted again at last Thursday's Open House that the full access point median cut is still not shown on the "preferred alternative" that was presented at the Open House also serve as the access point for a vacant parcel immediately south of the Sullivan property, and also could serve as the access point for two vacant parcels on the west side of Route 47. Specifically, the centerline of this full access point would be approximately 1300 ft. north of Rainsford Drive and 1300 ft. south of Talamore Drive. We noted again at last Thursday's Open House that the full access point median cut is still not shown on the "preferred alternative" that was presented at the Open House.</p> <p>As we have noted in our previous correspondence with IDOT on this issue the location in question (at the south line of the Sullivan Property) is shown as an "Allowed Full Access Location" on the Village of Huntley IL Rt 47 Access Plan.</p> <p>We understand that IDOT will be commencing with the preparation of design plans for the Rt 47 improvement project shortly. We also understand that IDOT is hesitant to show on these design plans a full access intersection for the point in question without firm plans that show proposed commercial development on the Sullivan parcel. Unfortunately, no such plans exist at this time. However, as a minimum, we request that the design of improvement for the Rt 47 project include the potential of a full access intersection at the south line of the Sullivan parcel. In that way, when the Sullivan parcel develop, a full access intersection could be added with minimal change to the roadway configuration.</p>
		R	<p>The proposed improvements have been re-designed to include an additional median break between Talamore and Rainsford Drive to be consistent with the Village of Huntley Plan.</p>
126	Jensen, Carl & Kathleen	C	<p>We have a concern on our driveway on our property next to Foster Road -- north of Foster Road about five, six hundred feet. I want to be able to go south on 47. I am concerned if there's going to be a curb or something there so I can go south on 47 out of my driveway without going north first. That's my concern.They have concrete there right now in front of our driveway, so we want to know if we can drive over the concrete in and out.</p>
		R	<p>A break in the median is not proposed for driveways in close proximity to an intersection with turn-lane channelization. A U-turn maneuver will be necessary from your IL 47 driveway to go southbound, or you can utilize your driveway off of Conley Road to go north or south.</p>

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
127	Jensen, Carl	C	If there's going to be stop-and-go lights at Foster and 47, that's my other question. Whether they answer it not or not, I don't know.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
128	Kellogg, Tim	C	I had submitted concern regarding the ROW acquisition and its effect on the commercial-zoned portion along Rt 47 for the property at 8913 N. Rt. 47, Huntley, IL 60142 (Huntley mailing address, but has been annexed into Lake in the Hills) as part of my attendance at the 2/19/15 public hearing. As I haven't received any follow-up communications or response, I wanted to make sure you did receive it. Thank you.
		R	Thank you for your comment and attending the public hearing. We did receive your comment and our responses to public comment have been underway following the close of the public comment period.
129	Kellogg, Tim	C	Regarding the approx. 160 acres east of the intersection of Ackman Rd & Rd 47: There is a considerable portion of the property that may be viable for wetland enhancement and creation. This area is adjacent to IDOT ROW. As it may qualify as on-site mitigation, we would request consideration as a viable non-IDOT owned wetland mitigation bank option. Please contact us prior to deciding on a mitigation location.
		R	Thank you for your offer of your property as a wetland mitigation option. IDOT prefers to provide wetland mitigation through an accredited wetland banking site. During the permitting process we may evaluate your property at that time however if it is still available.
130	Kellogg, Tim	C	Regarding the approx. 160 acres east of the intersection of Ackman Rd & Rd 47: Land adjacent to RT 47 is zoned commercial in Lake in the Hills. With the existing floodplain, wetlands, and unsuitable soils, the proposed 100-110.5' ROW would make a significant portion of the land likely to be unable to be developed as required by Lake in the Hills under their zoning code. Comp storage location would increase the burden.
		R	The proposed ROW acquisition along the subject property equates to approximately 5.5 acres, which is less than 5% of the three parcels you have inquired about. The location of the compensatory storage is within an existing floodplain, which would likely be undevelopable with or without the proposed compensatory storage.
131	Kurtz, John	C	Just want to become a member of the project database to receive updated reports on the status of the project.
		R	Thank you for your interest in the project. Your contact information has been added to the project stakeholder list.
132	Lackey, Bob	C	And for the neighborhood we also need a sound barrier wall. It's loud now and it's only going to get louder.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
		R	A detailed traffic noise study was conducted as part of the roadway improvements along Illinois Route 47 from U.S. Route 14 to Reed Road. For noise abatement measures such as a noise wall to be considered, a receptor must be impacted by the projected build noise levels from the proposed project (66 dB(A) or greater for exterior residential uses). A receptor location is typically an area of frequent outdoor use such as front or backyard. The noise wall must achieve at least a 5 dB(A) reduction to be considered a benefited receptor, and achieve at least an 8 dB(A) reduction for at least one of the benefited receptor locations, then be both feasible and reasonable meaning they are constructible, cost less than \$24,000-\$37,000 per benefited receptor (depending upon cost adjustments as listed in IDOT policy), and must be supported by greater than 50% of the benefited receptors. As described above, a benefited receptor is a unit that receives at least a 5 dB(A) traffic noise reduction as a result of a noise barrier and will be the basis for sending a viewpoint form. This is because the human ear perceives a 5 dB(A) change in noise as readily perceptible. Based on the noise study, no noise barriers were found to be feasible and reasonable per the above criteria and will not be implemented as part of this project.
133	Lackey, Bob	C	My statement is on the Route 47 expansion at Ballard Road. The intersection is extremely dangerous now, and without a light there there's going to be more traffic accidents and deaths.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections, including Ballard Road, within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
134	Lackey, Bob	C	And, also, for our neighborhood to the south there's a street called Hawthorne. I currently go out on Hawthorne to go north on 47. With the current proposal there's not going to be a left turn permitted off of Hawthorne on 47 which is wrong.
		R	The proposed improvement has been redesigned to include a median break on Illinois Route 47 at Hawthorne Way to allow for left-turning movements. The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. The existing traffic signals at the intersections of Illinois Route 47 with Reed Road and US 14 are not proposed to be impacted and will not be modified with the proposed improvements. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
135	Lackey, Bob	C	We really need to have a traffic light at 47 and Ballard.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections, including Ballard Road, within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
136	Lackey, Bob	C	Obviously the traffic study was not looked at during the peak times. The intersection of 47 & Ballard Rd. is the most dangerous of all intersections in proposed drawings. Just try going north on 47 from Ballard to the West.
		R	The traffic analysis conducted for this project evaluated existing traffic conditions (year 2011) as well as projected traffic conditions (year 2040). The proposed design takes into account the projected 2040 traffic volumes and operations. Plus, the addition of through lanes, left and right turn lanes along IL 47, a median and median breaks provide for improved operations and access to and from IL 47.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

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#	INDIVIDUAL		COMMENT/RESPONSE
137	Lackey, Bob	C	Also, the noise on 47 now is ridiculously loud! Now, it will get louder! Please put a sound wall at the Andover Acres subdivision at Ballard Rd. Start thinking about safety and the impact the noise will have on our community
		R	A detailed traffic noise study was conducted as part of the roadway improvements along Illinois Route 47 from U.S. Route 14 to Reed Road. For noise abatement measures such as a noise wall to be considered, a receptor must be impacted by the projected build noise levels from the proposed project (66 dB(A) or greater for exterior residential uses). A receptor location is typically an area of frequent outdoor use such as front or backyard. The noise wall must achieve at least a 5 dB(A) reduction to be considered a benefited receptor, and achieve at least an 8 dB(A) reduction for at least one of the benefited receptor locations, then be both feasible and reasonable meaning they are constructible, cost less than \$24,000-\$37,000 per benefited receptor (depending upon cost adjustments as listed in IDOT policy), and must be supported by greater than 50% of the benefited receptors. As described above, a benefited receptor is a unit that receives at least a 5 dB(A) traffic noise reduction as a result of a noise barrier and will be the basis for sending a viewpoint form. This is because the human ear perceives a 5 dB(A) change in noise as readily perceptible. Based on the noise study, no noise barriers were found to be feasible and reasonable per the above criteria and will not be implemented as part of this project.
138	Lackey, Bob	C	And, your design Hawthorn Way as "right in, right out". Eliminate the median by Hawthorn and put a traffic signal on Ballard!
		R	The proposed improvement has been redesigned to include a median break on Illinois Route 47 at Hawthorne Way to allow for left-turning movements. The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. The existing traffic signals at the intersections of Illinois Route 47 with Reed Road and US 14 are not proposed to be impacted and will not be modified with the proposed improvements. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
139	Latos, Tom	C	Please no stop lights at Foster and Conley Rd (and 47)
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized, including the Foster Road and Conley Road intersections.
140	Leelard, Cliff	C	Thank you for this project. We have waited a long time for it.
		R	Thank you for your comment and continued support of this project.
141	Leelard, Cliff	C	I think it is imperative to do the Pleasant Valley Road alternative to be aligned at 176 for safety. This should be the primary impetus for this entire project.
		R	This study realigns Pleasant Valley Road further north and provides for more separation from the current IL 47 and IL 176 south leg intersection. This realignment along with the addition of a through lane in each direction, added turn lanes, full width shoulders, and a median improves safety throughout the corridor of the improvement. However, a separate Phase I study is underway to evaluate the re-alignment of Pleasant Valley Road to the intersection of IL 47 and the south leg of IL 176 that would be consistent with the ultimate improvement of IL 47.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	INDIVIDUAL		COMMENT/RESPONSE
142	Leelard, Cliff	C	Not fond of the U-turns but I can live with them.
		R	Thank you for your comments.
143	Mirs, Roger	C	Comments: My name is Roger Mirs. I worked for IDOT District One from 1969 to 2002, mostly in Design. Through the years I worked on several projects on IL 47 within your project limits. I have one point of information for you. The segment of IL 47 from Foster/Union Rd. to Conley Rd., which you designate a wetland is situated on a peat bog approximately 20 to 40 feet deep. Through the years segments of the pavement cracked apart feet deep. Through the years segments of the pavement cracked apart and some of them settled down unevenly, sometimes up to 4" to 6". Our end some of them settled down unevenly, sometimes up to 4" to 6". Our cost effective solution through the decades has been to add more asphalt to the settled sections to make a safe drivable surface. This of course does not address the cause of the problem, only the resultant symptoms. This situation is not a particular concern for your phase of the project; but it will become an issue in the design phase. One possible solution that I have frequently seen used is to construct about a 2 foot layer of large aggregate encapsulated in a geotechnical fabric. This is all constructed below the sub-base and pavement structure. This can still pose potential problems however. The stone much more dense than the replaced peat and the peat that left in place below it tends to compress over time. Sometimes this does not occur evenly or quickly. This can be a particular problem for pavements that have a curb and gutter on the outside of the pavement shoulder. If a curb gutter takes on a real roller coaster appearance, usually later in its life span. I have seen 2 other methods of soil remediation used when constructing pavement over unstable soils. Method one is complete removal of the unstable soils and replacement with stable soil or aggregate. Methods two is construction of a dry land bridge. These methods are used infrequently due to their high cost and the time intensive nature of the construction techniques required to construct them. The only reason I bring up this issue in Phase 1 is that this may be an issue for the estimated cost of the project. The project report shows traversing many wetlands, so there may be solid stability issue in these issues as well.
		R	Thank you for your comments pertaining to the soil conditions along the corridor. During Phase II (final design) of the project, soil borings and analysis will be performed. The results of this analysis will influence the detailed design of the improvements, including the pavement design.
144	Nazario, Ruben	C	I'm glad IDOT is working towards making this section of RT 47 safer. What will be done to prevent and/or discourage motorists from using Pleasant Valley Road as an alternate route to bypass the construction? Pleasant Valley Road is already a very dangerous road with several hills and curves, "blind" intersections at Hamilton and Swanson roads, many private residential driveways, occasional bicyclists, pedestrians, and farming vehicles and, in my opinion, too high of a speed limit (45 to 50 mph!). I am concerned the additional traffic will lead to accidents. Can the speed limit on Pleasant Valley Road be reduced to discourage its use and make it safer for the additional traffic? Thank You.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	INDIVIDUAL		COMMENT/RESPONSE
		R	<p>During construction of the proposed improvements, one lane in each direction on Illinois Route 47 would be maintained, which is similar to existing conditions. IDOT does not currently anticipate significant traffic routing deviations, and will continue to work with stakeholders during Phase II (Final Design).</p> <p>It should also be noted that a separate Phase I study is underway to evaluate the re-alignment of Pleasant Valley Road to the Intersection of Illinois Route 47 and the south leg of Illinois Route 176. This study proposes a four-legged intersection at Illinois Route 47 and Illinois Route 176 with Pleasant Valley Road creating the west leg of the intersection. The existing intersection of Pleasant Valley Road at Illinois Route 47 would be eliminated.</p>
145	Quinn, Gerald	C	In addition I would like to request that sound barrier walls be installed the length of the road that borders Andover Acres on both sides of Ballard Road and both sides of Hawthorne Road. Please give these requests serious consideration they would mean a tremendous amount to the welfare and safety of the residents of Andover Acres.
		R	A detailed traffic noise study was conducted as part of the roadway improvements along Illinois Route 47 from U.S. Route 14 to Reed Road. For noise abatement measures such as a noise wall to be considered, a receptor must be impacted by the projected build noise levels from the proposed project (66 dB(A) or greater for exterior residential uses). A receptor location is typically an area of frequent outdoor use such as front or backyard. The noise wall must achieve at least a 5 dB(A) reduction to be considered a benefited receptor, and achieve at least an 8 dB(A) reduction for at least one of the benefited receptor locations, then be both feasible and reasonable meaning they are constructible, cost less than \$24,000-\$37,000 per benefited receptor (depending upon cost adjustments as listed in IDOT policy), and must be supported by greater than 50% of the benefited receptors. As described above, a benefited receptor is a unit that receives at least a 5 dB(A) traffic noise reduction as a result of a noise barrier and will be the basis for sending a viewpoint form. This is because the human ear perceives a 5 dB(A) change in noise as readily perceptible. Base on the noise study, no noise barriers were found to be feasible and reasonable per the above criteria and will not be implemented as part of this project.
146	Quinn, Gerald	C	I would like to request that you urgently consider installing a traffic signal at the corner of Rt 47 and Ballard Road. This is a very dangerous intersection and is long overdue for this improvement. Please give these requests serious consideration they would mean a tremendous amount to the welfare and safety of the residents of Andover Acres.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
147	Reece, Jerry	C	I am moving to the area, but am very familiar with this type of construction and this particular area. In my opinion, the value of widening this roadway is tremendous to the traveling public and future economic welfare of McHenry County. While certain environmentally sensitive areas will be impacted, I do believe they can be off-set in a responsible manner. I certainly hope that the project proceeds as designed.
		R	Thank you for your comment and continued support of this project.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	INDIVIDUAL		COMMENT/RESPONSE
148	Sena, Catherine	C	Beverly Materials has a gravel pit located off of Foster Rd just east of R.47. This area would be made MUCH SAFER with a traffic signal at that intersection. With semi-trucks coming & going and with the high speed limit on R.47, a signal would greatly reduce accidents in the area.
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized.
149	Trottier, Ryan	C	The intersections of Conley and Foster Road should be signalized so that the gravel and dump trucks that need to head south of RT-47 can make a safe turning movement. Increased traffic on RT-47 with the proposed widening will only make it more difficult for the trucks to make a left hand turn. Please consider signals at both these intersections. Thank you!
		R	The proposed improvements will upgrade and maintain the two existing traffic signals at both of the Illinois Route 47 and Illinois Route 176 intersections. Other intersections within the project limits do not currently meet the warrants for a traffic signal and will remain unsignalized, including the Foster Road and Conley Road intersections.
150	Weiner, Candy	C	We are going to have some accidents there. My understanding is they are not lowering the speed down. They are going to leave it at 55 miles an hour. You can't get out of the subdivision. They are not putting a stop light in there. Today is 3/12/15 and I leave the house at ten to six. I take a left on 47 going north, and it can take me ten minutes to get out of my subdivision at ten to six in the morning. Now you are going to put four lanes and no way for me to get out of my subdivision. I would appreciate if in they would have talked to the homeowners. It sounds like they talked only the Craig's that own homes like three down from me, and they rent them out, so there's no impact to them. It impacts me. I wish the State would think about talking to all the homeowners and get our input and see if they can help to us to minimize of the frustrations.
		R	The preferred alternative includes the addition of a through lane in each direction, full width shoulders, and a grass median with breaks, which provides for safer access to and from IL 47. U-turns maneuvers are provided for at each median break.
151	Weiner, Candy	C	They said they had studies for a while. I have never gotten anything. I got a card. This is the first time I got a card. I actually called two years ago and asked the State if they were doing anything with this road and I was told no, they would not touch the road for another 15, 20 years. They said the State is broke. Now I get a card in the mail and guess what, they are going to put a -- talking about finally doing this road, but they are coming to my house. Go take the farmland. There's lots of room on the farmland. There's nobody there. I know there are wetlands and all that stuff, but there's wetlands on the other side too. I wish some people would be a little more transparent.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

#	INDIVIDUAL		COMMENT/RESPONSE
		R	This study has been ongoing since 2007 and is currently nearing the end of IDOT's preliminary engineering and environmental studies phase. Open House Public Meetings were held in Fall of 2008 and Fall of 2009 to show roadway concepts and accept public input. Local Government level workshops were held throughout the study as well. The final design phase of the project is funded; however, land acquisition and construction are unfunded. Therefore, the new edge of pavement will be approximately 11' closer to your home. The roadway alignment is designed with a 27-foot shift to the east to avoid the homes on the west side of Illinois Route 47 near Ballard Road. The proposed right-of-way would result in the acquisition of a portion of your property to provide for a new southbound right-turn lane for safer access to your subdivision, and a planned drainage ditch and sidewalk.
152	Weiner, Candy	C	I live on 47 and Ballard on the corner with the berm. So I'm hearing they are going to do four lanes. They are going to take part of my property. They have got the easement coming where I can see on the diagram. They basically want to take and own up to my gravel part of the driveway. So the concerns I have is: I have a berm there. I purposely put the berm there because I had cars coming off of 47. They would basically drive down into my yard and down my driveway. So I have a concern that now they are going to take the berm and they want to let the water flow through there; well, that's not going to help me because now you are moving the road basically towards my house and I'm not going to have the berm anymore, so I'm going to have cars come back and visit me when they are not paying attention.
		R	The edge of the pavement will be located approximately 11 feet closer to your property. The preferred alternative includes a 10-foot outside shoulder, which provides space for drivers to correct their vehicle's path should the driver stray from the travel lane. The proposed ditch between the back of the sidewalk and the limit of the proposed right-of-way along your property will allow water runoff to be directed to an appropriate outlet. The ditch may also act as a buffer or "clear zone" to any errant vehicle that may leave the roadway.
153	Weiner, Candy	C	Also, noise level. I'm trying to determine. They said they did noise studies and stuff, but I would like to know what day or what time of year they were doing noise levels, because in the summertime it's so loud it's not funny on the deck in the backyard. You hear a lot of truck traffic, motorcycle traffic. And you can even hear it in the house. So I have a concern that they are not planning on doing any kind of noise wall or something to reduce that. And, like I said, my concern is really the privacy I'm going to lose with all those cars looking in my backyard.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

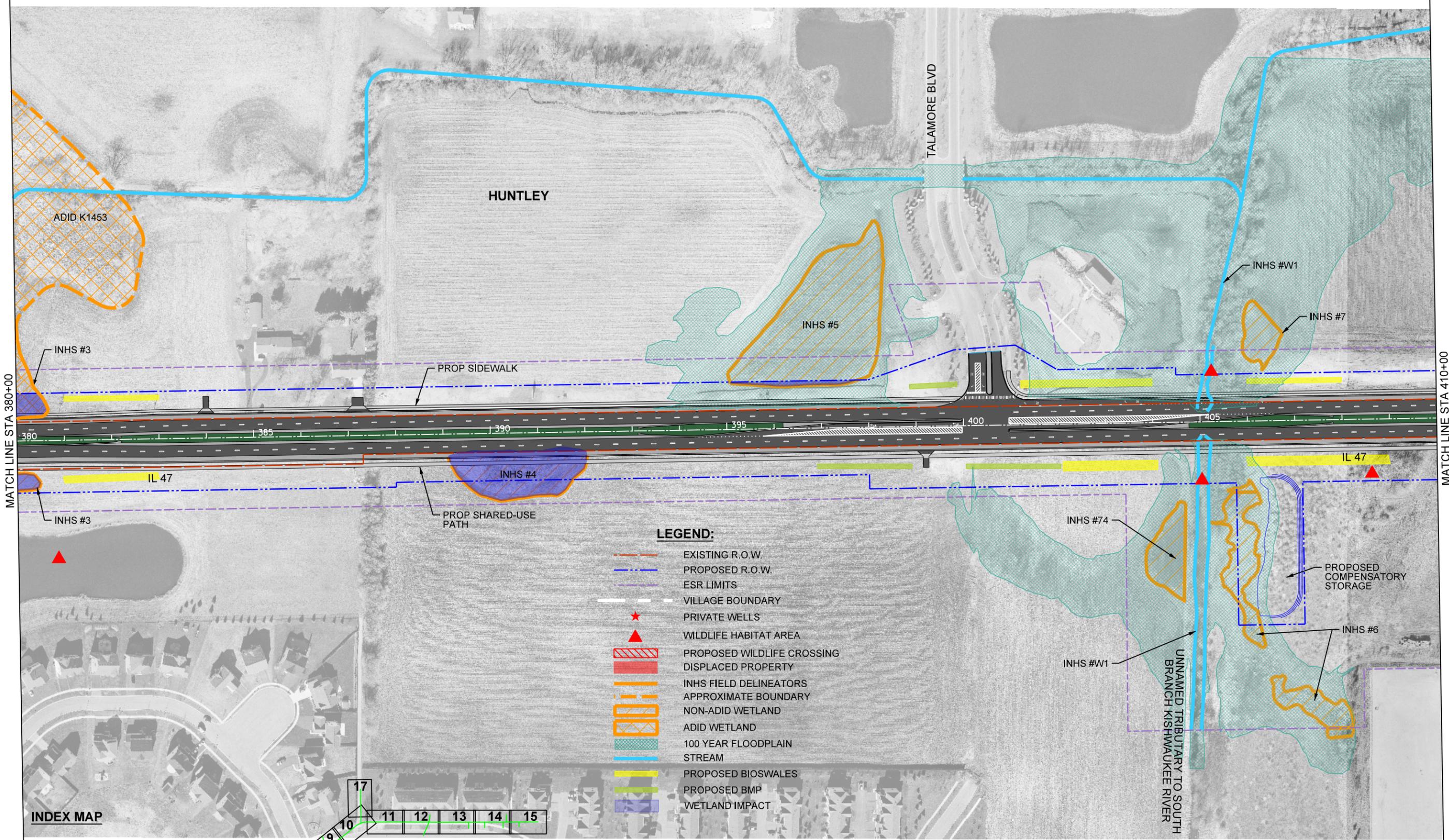
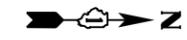
#	INDIVIDUAL		COMMENT/RESPONSE
R			A detailed traffic noise study was conducted as part of the roadway improvements along Illinois Route 47 from U.S. Route 14 to Reed Road. For noise abatement measures such as a noise wall to be considered, a receptor must be impacted by the projected build noise levels from the proposed project (66 dB(A) or greater for exterior residential uses). A receptor location is typically an area of frequent outdoor use such as front or backyard. The noise wall must achieve at least a 5 dB(A) reduction to be considered a benefited receptor, and achieve at least an 8 dB(A) reduction for at least one of the benefited receptor locations, then be both feasible and reasonable meaning they are constructible, cost less than \$24,000-\$37,000 per benefited receptor (depending upon cost adjustments as listed in IDOT policy), and must be supported by greater than 50% of the benefited receptors. As described above, a benefited receptor is a unit that receives at least a 5 dB(A) traffic noise reduction as a result of a noise barrier and will be the basis for sending a viewpoint form. This is because the human ear perceives a 5 dB(A) change in noise as readily perceptible. Base on the noise study, no noise barriers were found to be feasible and reasonable per the above criteria and will not be implemented as part of this project.
154	Wilkerson, Penny	C	In the barnyard there is also a four-foot concrete wall that surrounds the old cow yard. What would happen to that? And the brick pillars I would like preserved rather than destroyed. If the easement is coming in on me, maybe they could be moved 50 feet in on whatever the line is.
R			A portion of the concrete cow yard wall is within the area of land acquisition as are the brick pillars. Structures that are located on your property and are impacted by the proposed improvements will be addressed during the appraisal stage of the land acquisition process.
155	Wilkerson, Penny	C	I have farm property at 8401 North Route 47. It's the property that has the brick pillars in front of the property, ten total if I'm correct. The center line is being moved 27 feet to the east to allow frontage, the first yellow section up to the yellow line. I don't know if that line is going to be coming onto my property.
R			Yes, there is proposed right-of-way acquisition for your property. The distance between the existing right-of-way and the proposed right-of-way at your property is 33 feet to accommodate the wider roadway, space for a sidewalk, and the outside ditch. The edge of the pavement will be located approximately 11 feet closer to your property. Please see Sheet 4 of Exhibit 4-1 of the Errata.
156	Wilkerson, Penny	C	The man did say there was a turn lane coming onto the property; maybe that turn lane could be more centered with the two existing driveways, my north and my central driveway, to allow access rather than in front of the house.
R			Currently, the median break is designed to align with your central driveway to maintain proper spacing between the locations of median breaks.
157	Wulf, Lonarta	C	My husband built this house in 1977 and lived until his death. With the proposed construction there is no other choice but for the State to purchase the 6 parcels of land and homes on them at the current fair market value. There is no land used from the East side of Rt 47 only the West side. The State will be taking away the homes of 6 families.

RESPONSE TO EA COMMENTS – LOCAL GOVERNMENTS

C = Comment R = Response

All comments listed below have been incorporated into the project record.

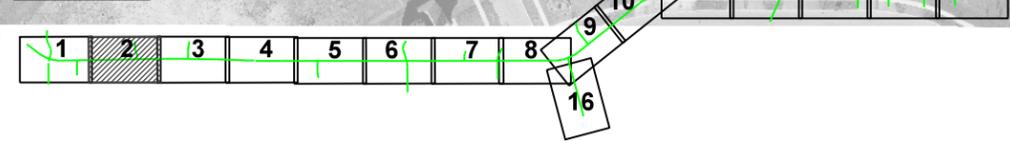
#	INDIVIDUAL		COMMENT/RESPONSE
		R	The proposed alignment of Illinois Route 47 was specifically design to re-align Illinois Route 47 further to the east by 27 feet to avoid impacts to the homes on the west side of the road near Ballard Way. There is additional right-of-way proposed on the east side of the road than the west side of the road. The edge of pavement on the west side of the road will not be any closer to these homes in the proposed conditions than in the existing conditions. However, a drainage ditch and sidewalk are planned with the proposed improvement, which necessitates the additional right-of-way along the west side of Illinois Route 47.
158	Ziemba, Joe	C	ComEd has received the hearing notice for the above project. I am with the facility relocation department. Please let me know if there are any preliminary plans for the project.
		R	Draft plans have been provided through the Department's utility coordination process.



LEGEND:

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

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

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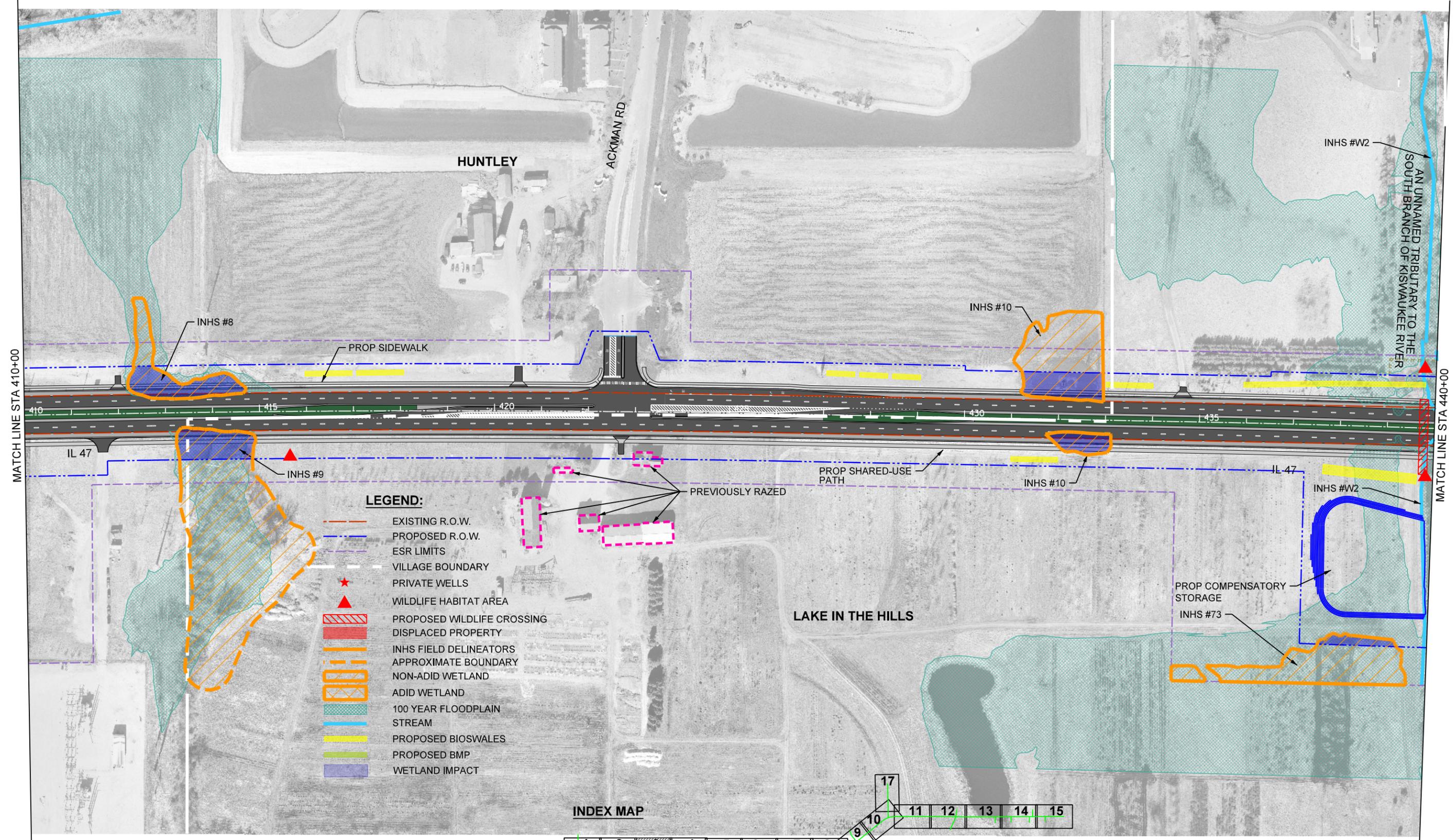
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

1" = 200' SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

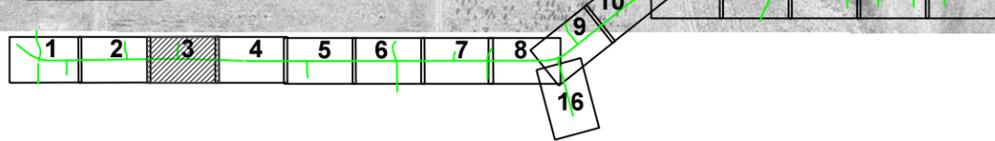
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LEGEND:

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

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

1" = 200'
SHEET NO. 3 OF 7 SHEETS STA. TO STA.

F.A.P. 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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7/8/2016

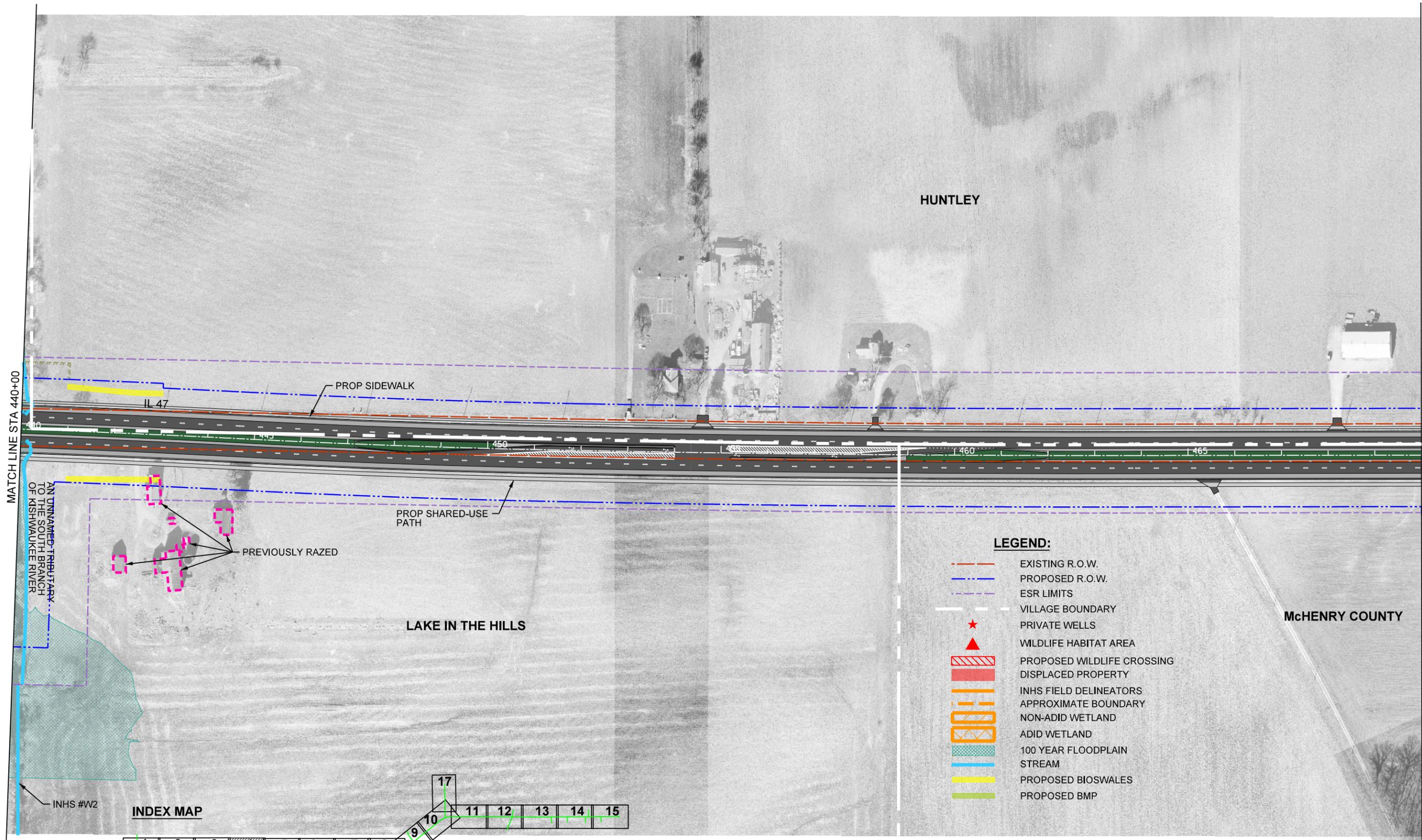


HUNTLEY

McHENRY COUNTY

MATCH LINE STA 440+00

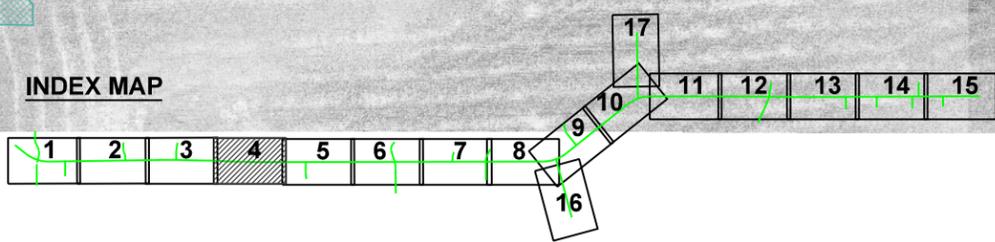
MATCH LINE STA 470+00



LEGEND:

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

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

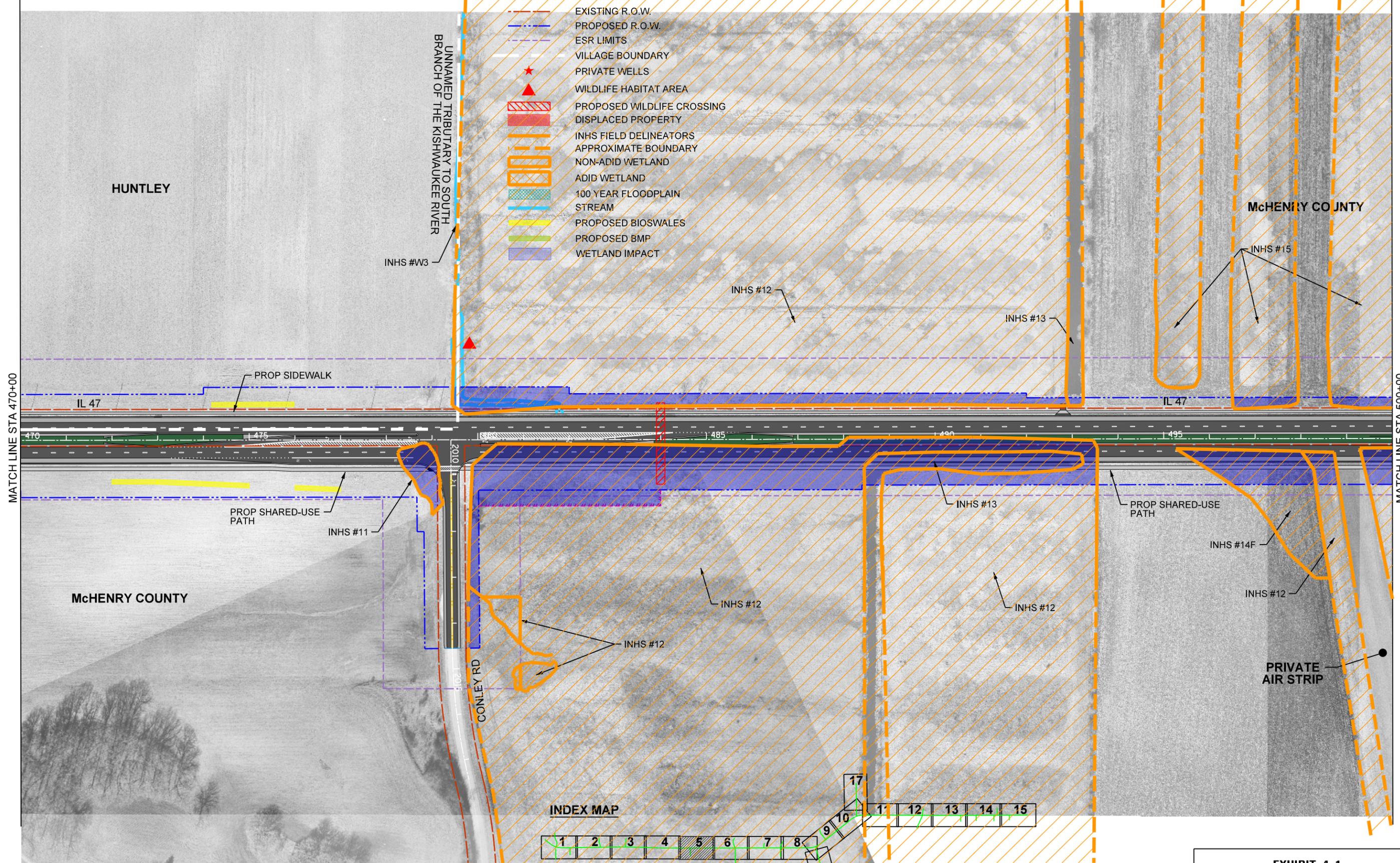
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	McHENRY	17	4
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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7/8/2016

LEGEND:

- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
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- WETLAND IMPACT



INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

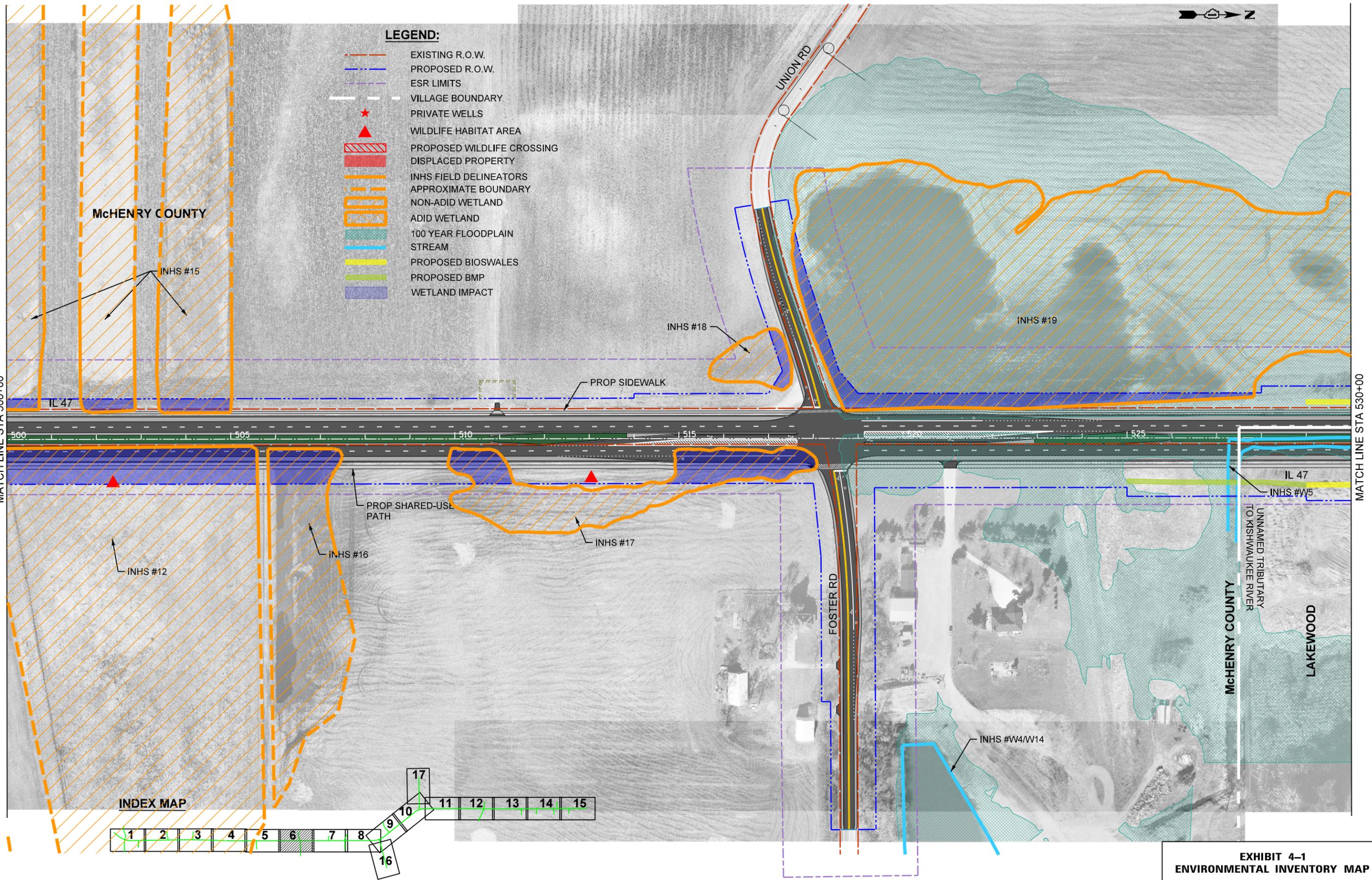
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

1" = 200' SHEET NO. 5 OF 17 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	McHENRY	17	5
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- LEGEND:**
- - - EXISTING R.O.W.
 - - - PROPOSED R.O.W.
 - - - ESR LIMITS
 - - - VILLAGE BOUNDARY
 - ★ PRIVATE WELLS
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 - ▨ PROPOSED BMP
 - ▨ WETLAND IMPACT

McHENRY COUNTY

INHS #15

INHS #18

INHS #19

PROP SIDEWALK

MATCH LINE STA 500+00

MATCH LINE STA 530+00

IL 47

IL 47

INHS #W5

PROP SHARED-USE PATH

INHS #12

INHS #16

INHS #17

FOSTER RD

McHENRY COUNTY

LAKWOOD

UNNAMED TRIBUTARY TO KISHWAUKEE RIVER

INHS #W4/W14

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

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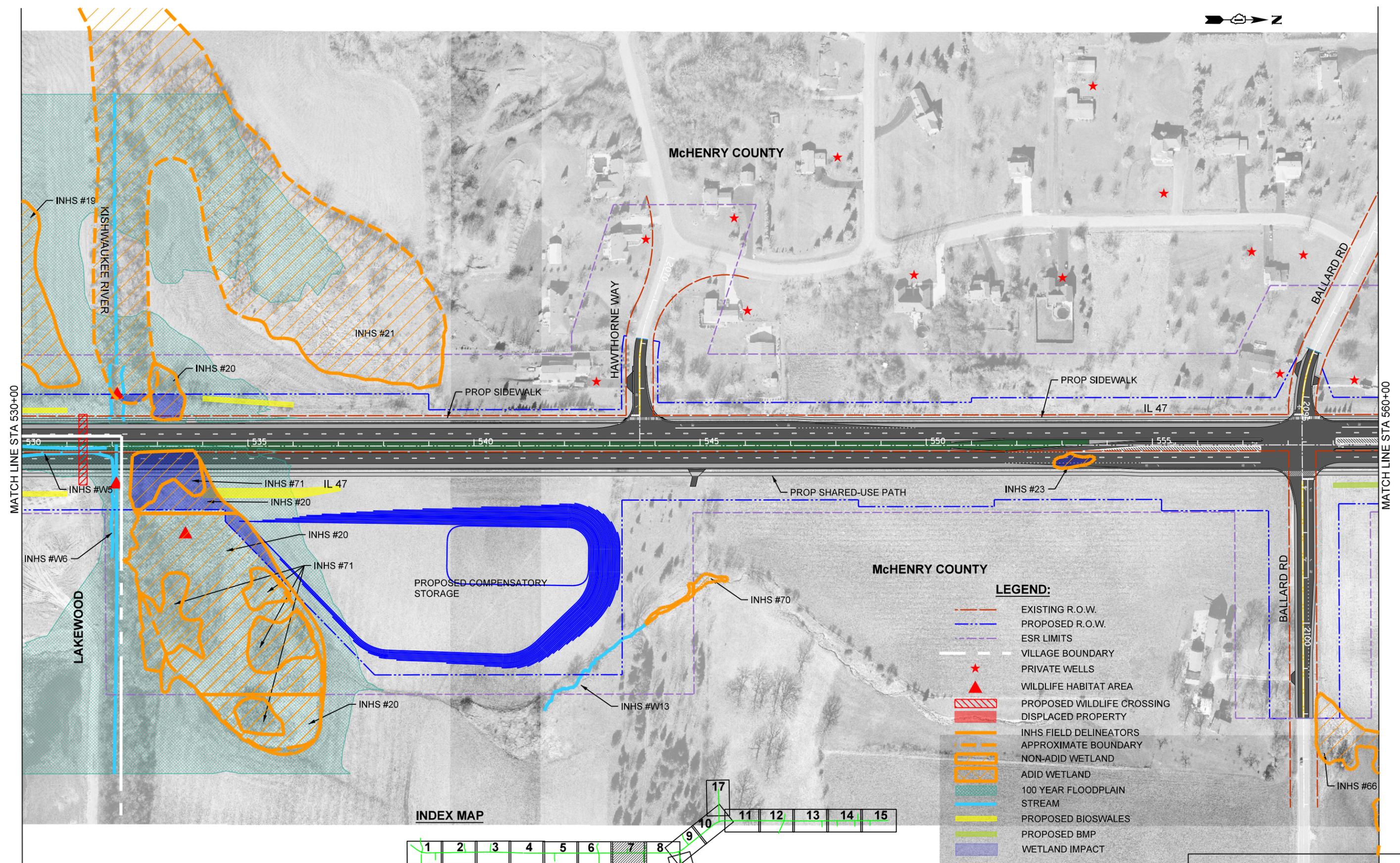
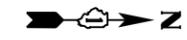
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

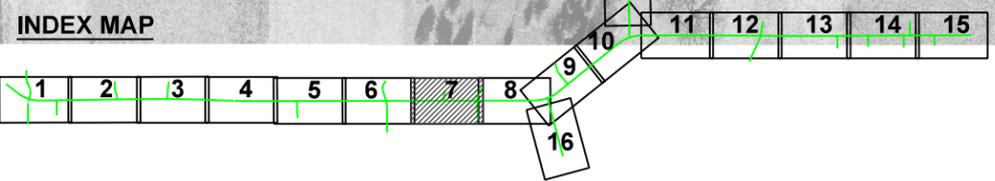
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MATCH LINE STA 530+00

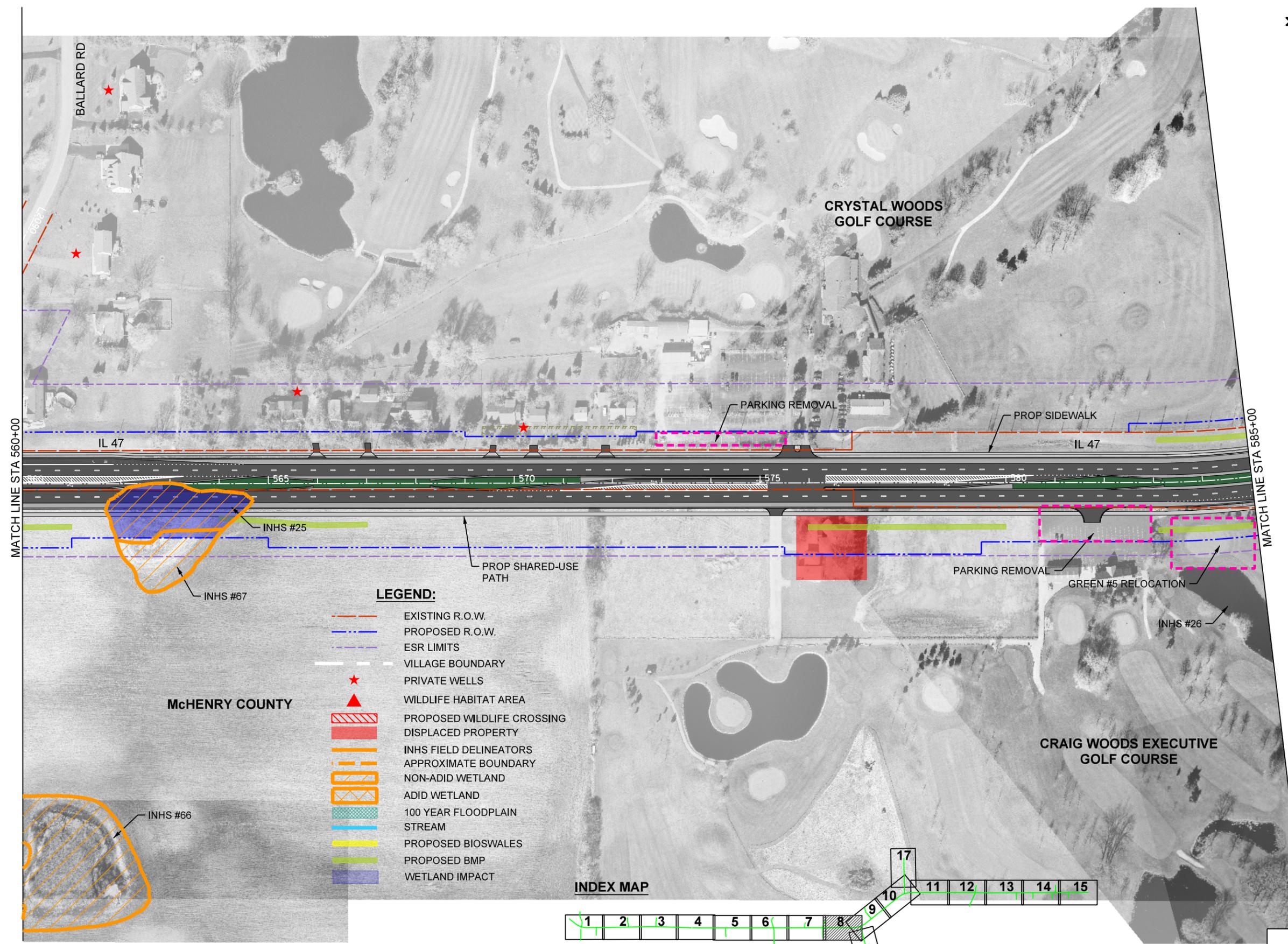
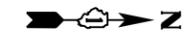
MATCH LINE STA 560+00

- LEGEND:**
- EXISTING R.O.W.
 - PROPOSED R.O.W.
 - ESR LIMITS
 - VILLAGE BOUNDARY
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 - PROPOSED BMP
 - WETLAND IMPACT



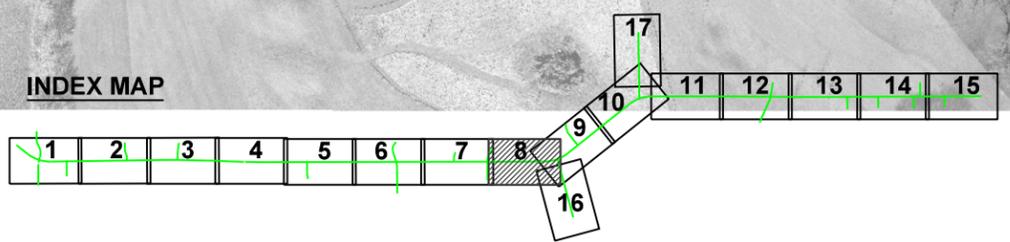
**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints07.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ENVIRONMENTAL CONSTRAINTS				F.A.P. RTE. 47	SECTION REED ROAD TO US 14	COUNTY MCHENRY	TOTAL SHEETS 17	SHEET NO. 7
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---		1" = 200' SHEET NO. 7 OF 17 SHEETS STA. TO STA.				CONTRACT NO.				
	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
\\uschlfs001\prod\Projects\P60039027\000_CAD\006_Civil\Env\Sheets\39027_SHT_ENV_Constraints07.dgn 7/8/2016													



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

INDEX MAP



McHENRY COUNTY

**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints08.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
		CHECKED - ---	REVISED - ---
		DATE -	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

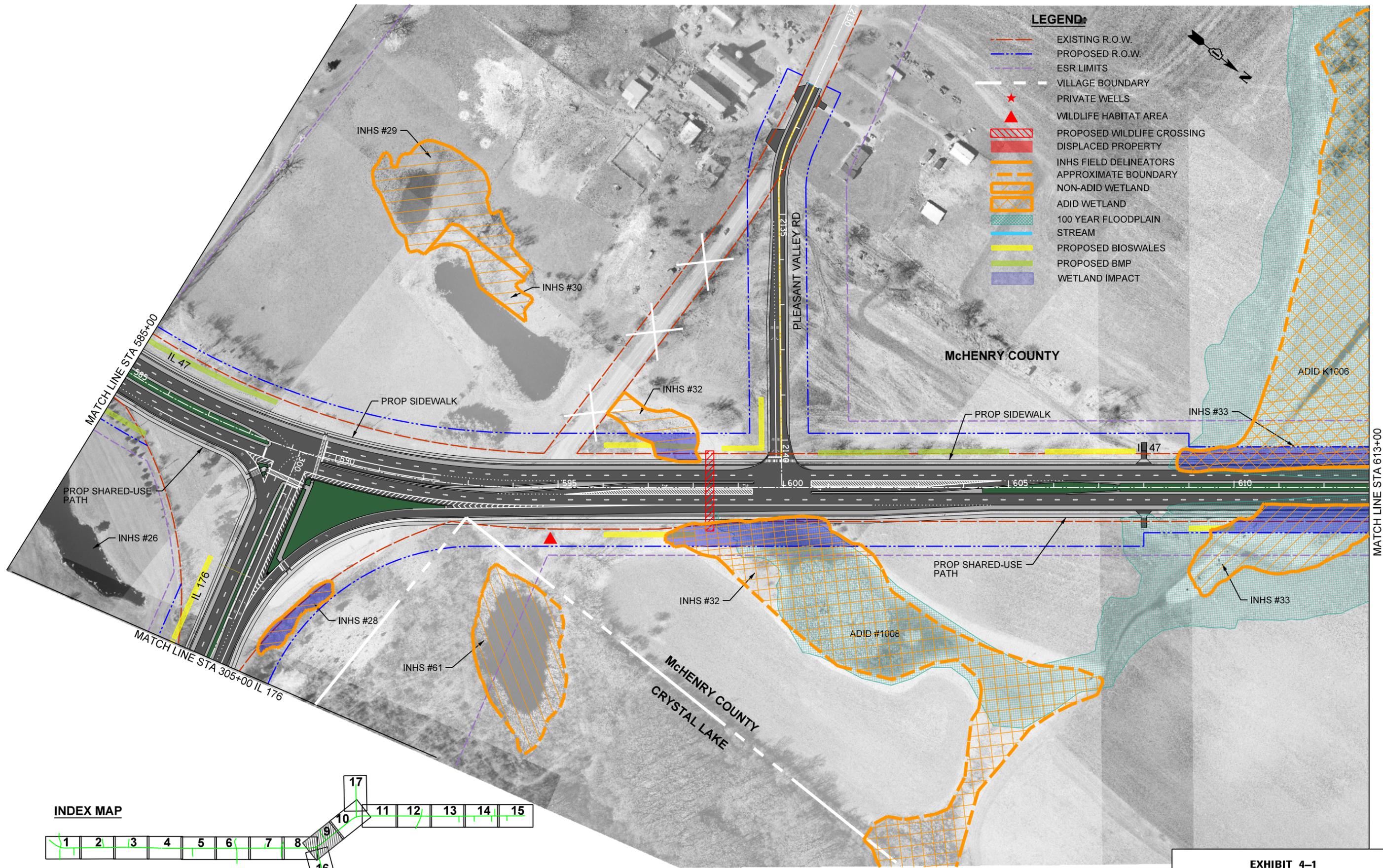
1" = 200'
SHEET NO. 8 OF 17 SHEETS
STA. TO STA.

F.A.P. 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				

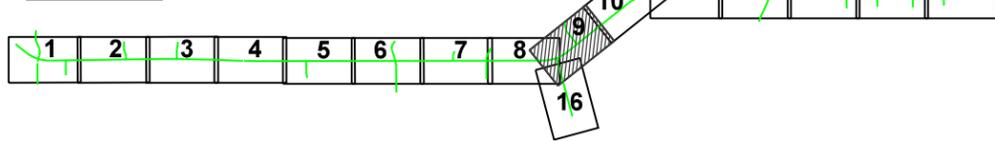
\\uschlfs001\prod\Projects\p60039027\000_CAD\006_Civil\Env\Sheets\39027_SHT_ENV_Constraints08.dgn
7/8/2016

LEGEND:

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



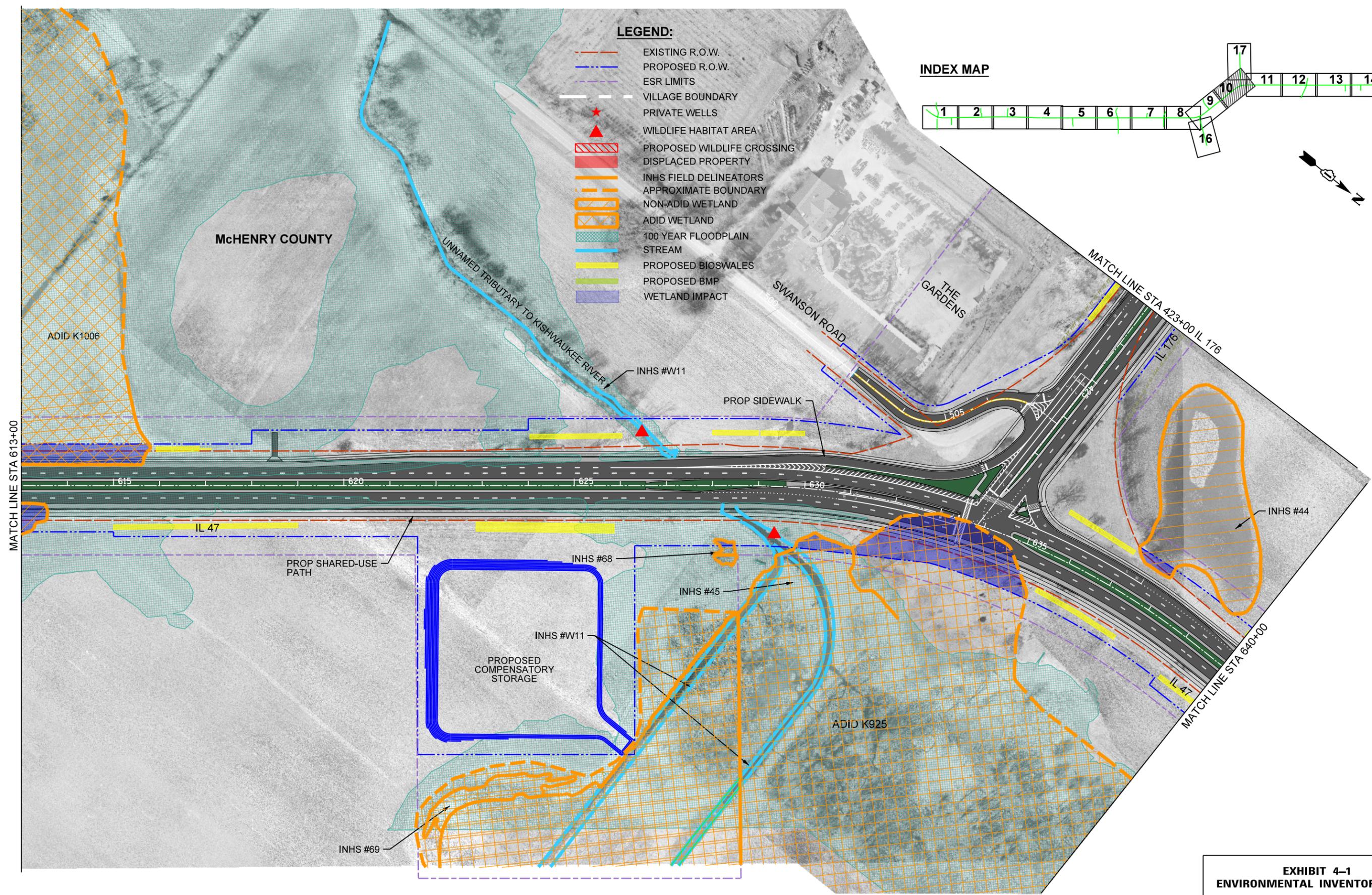
INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints09.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ENVIRONMENTAL CONSTRAINTS	F.A.P. RTE. 47	SECTION REED ROAD TO US 14	COUNTY MCHENRY	TOTAL SHEETS 17	SHEET NO. 9
PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---	REVISED - ---			CONTRACT NO.				
PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---	REVISED - ---			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
1" = 200'					SHEET NO. 9 OF 17 SHEETS		STA. TO STA.			

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7/8/2016



FILE NAME =	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
39027_SHT_ENV_Constraints10.dgn		DRAWN - PHP	REVISED - ---
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---
	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---

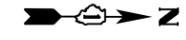
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

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

EXHIBIT 4-1 ENVIRONMENTAL INVENTORY MAP				
F.A.P. 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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7/8/2016

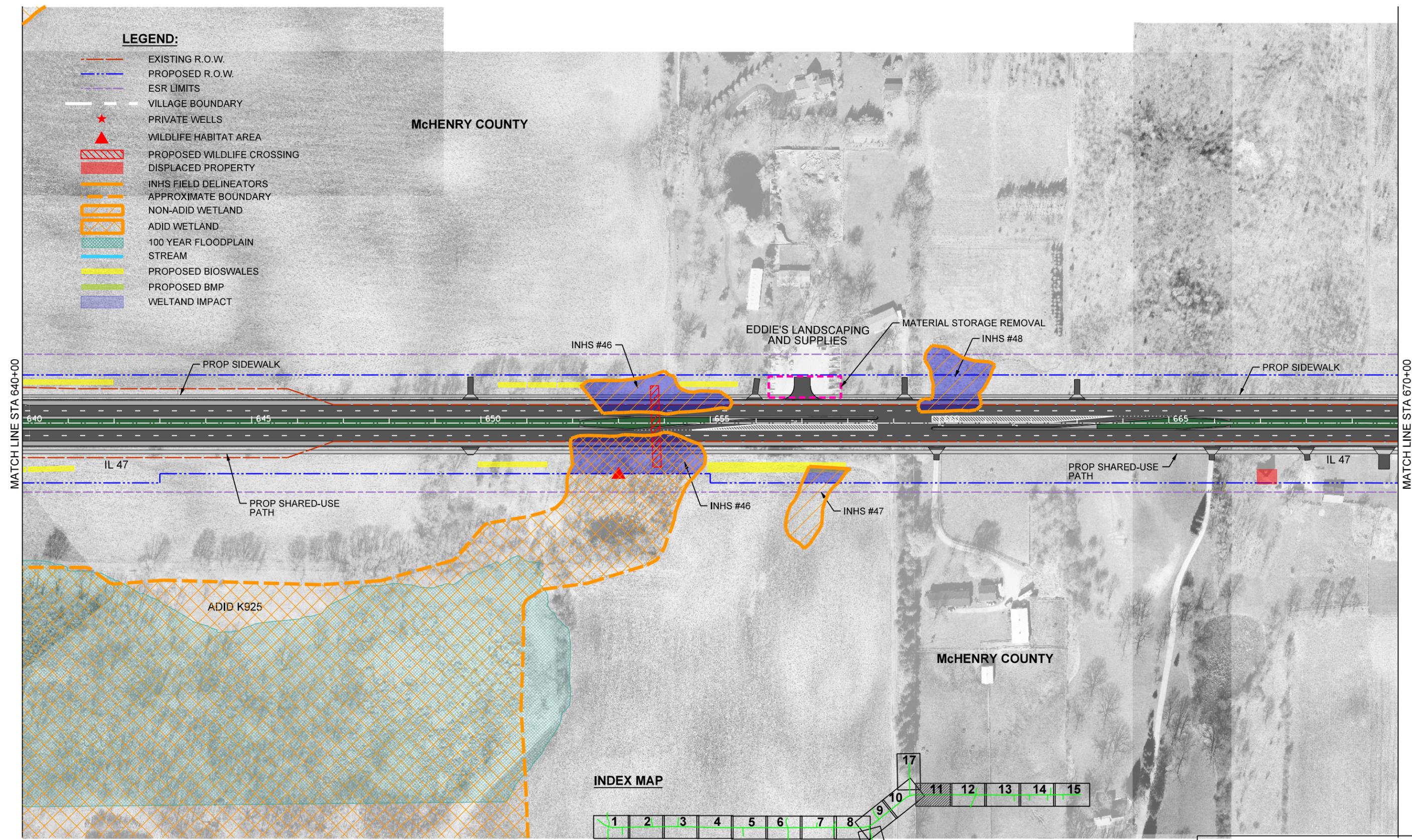


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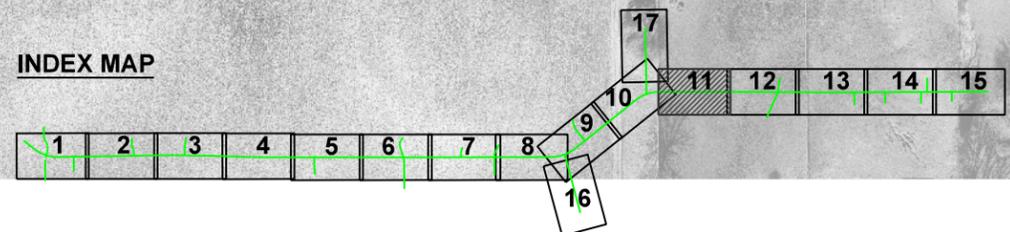
- EXISTING R.O.W.
- PROPOSED R.O.W.
- ESR LIMITS
- VILLAGE BOUNDARY
- PRIVATE WELLS
- WILDLIFE HABITAT AREA
- PROPOSED WILDLIFE CROSSING
- DISPLACED PROPERTY
- INHS FIELD DELINEATORS
- APPROXIMATE BOUNDARY
- NON-ADID WETLAND
- ADID WETLAND
- 100 YEAR FLOODPLAIN
- STREAM
- PROPOSED BIOSWALES
- PROPOSED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

McHENRY COUNTY

McHENRY COUNTY



INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

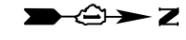
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		DRAWN - PHP	REVISED - ---
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	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

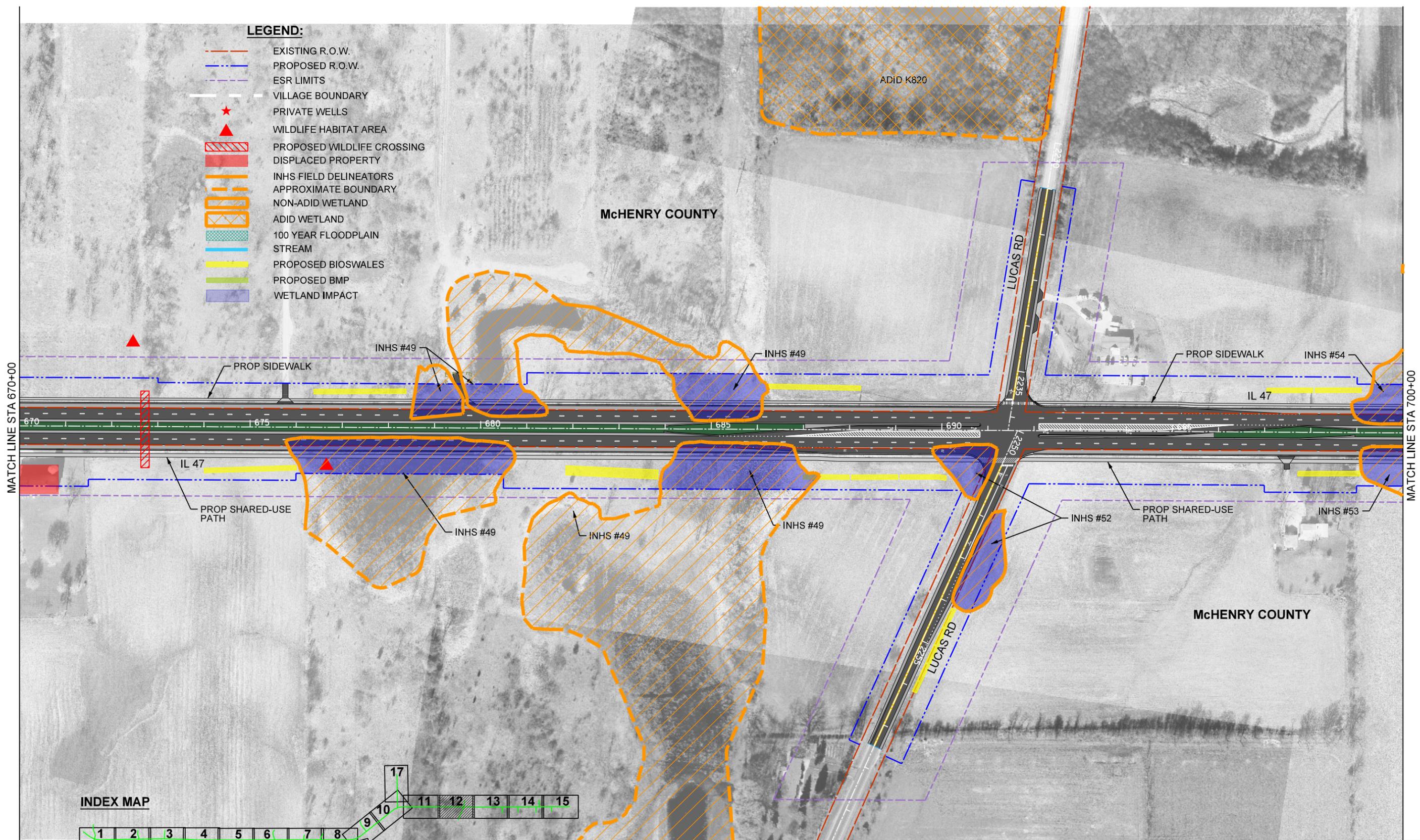
1" = 200' SHEET NO. 11 OF 17 SHEETS STA. TO STA.

F.A.P. 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				

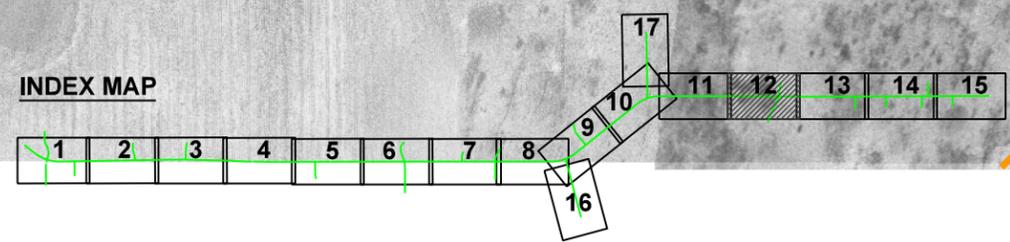


LEGEND:

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



INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints12.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED - ---
	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

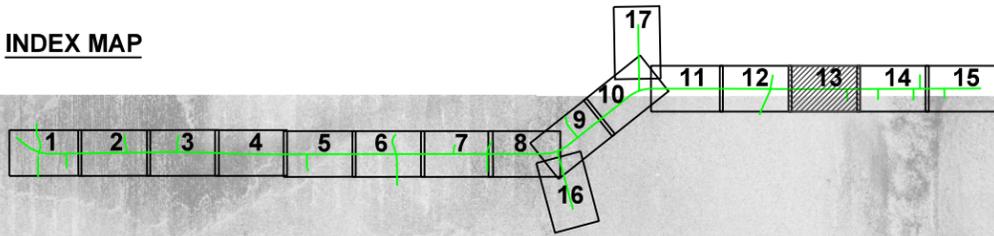
ENVIRONMENTAL CONSTRAINTS

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

F.A.P. 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				

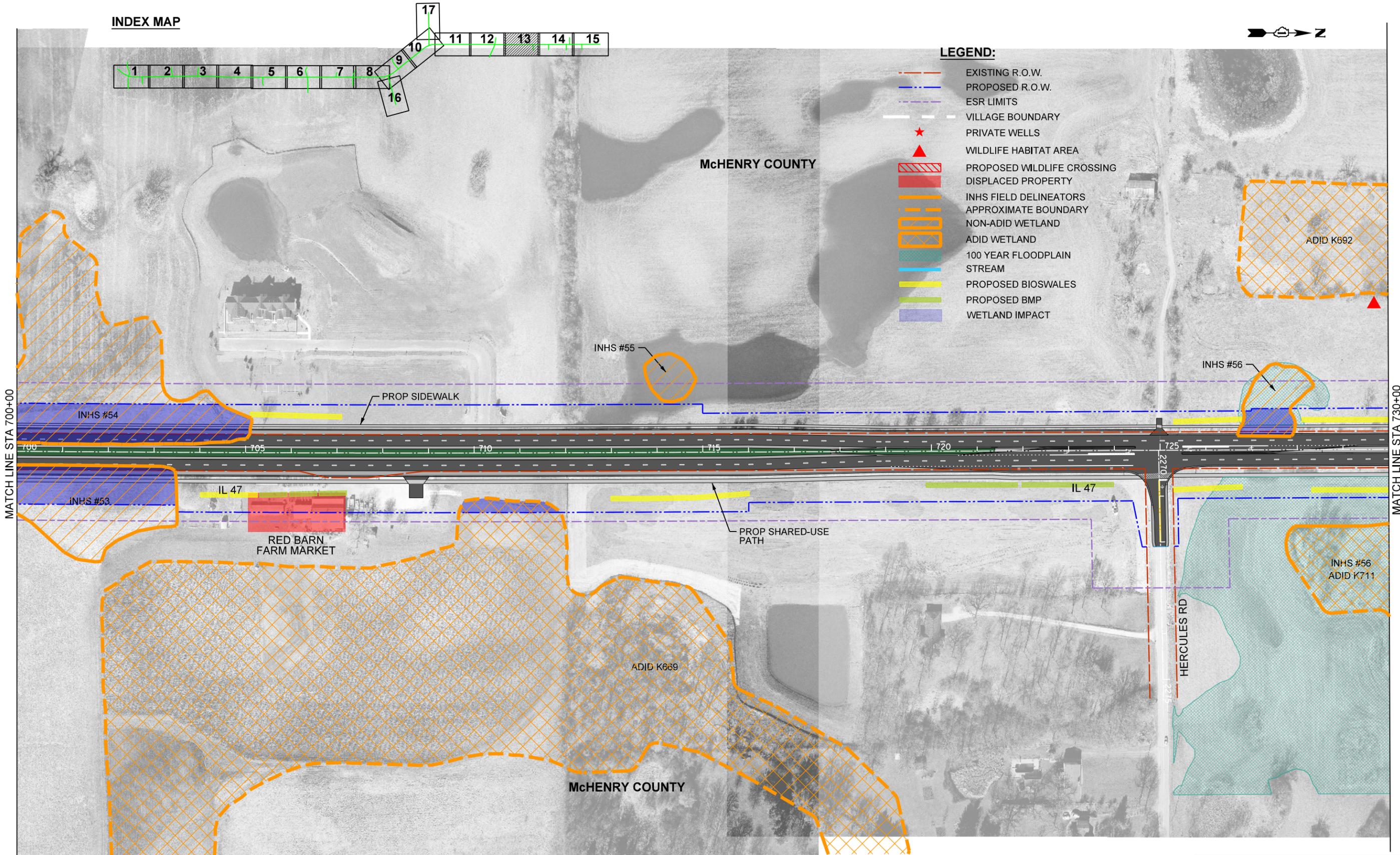
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7/8/2016

INDEX MAP



LEGEND:

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



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

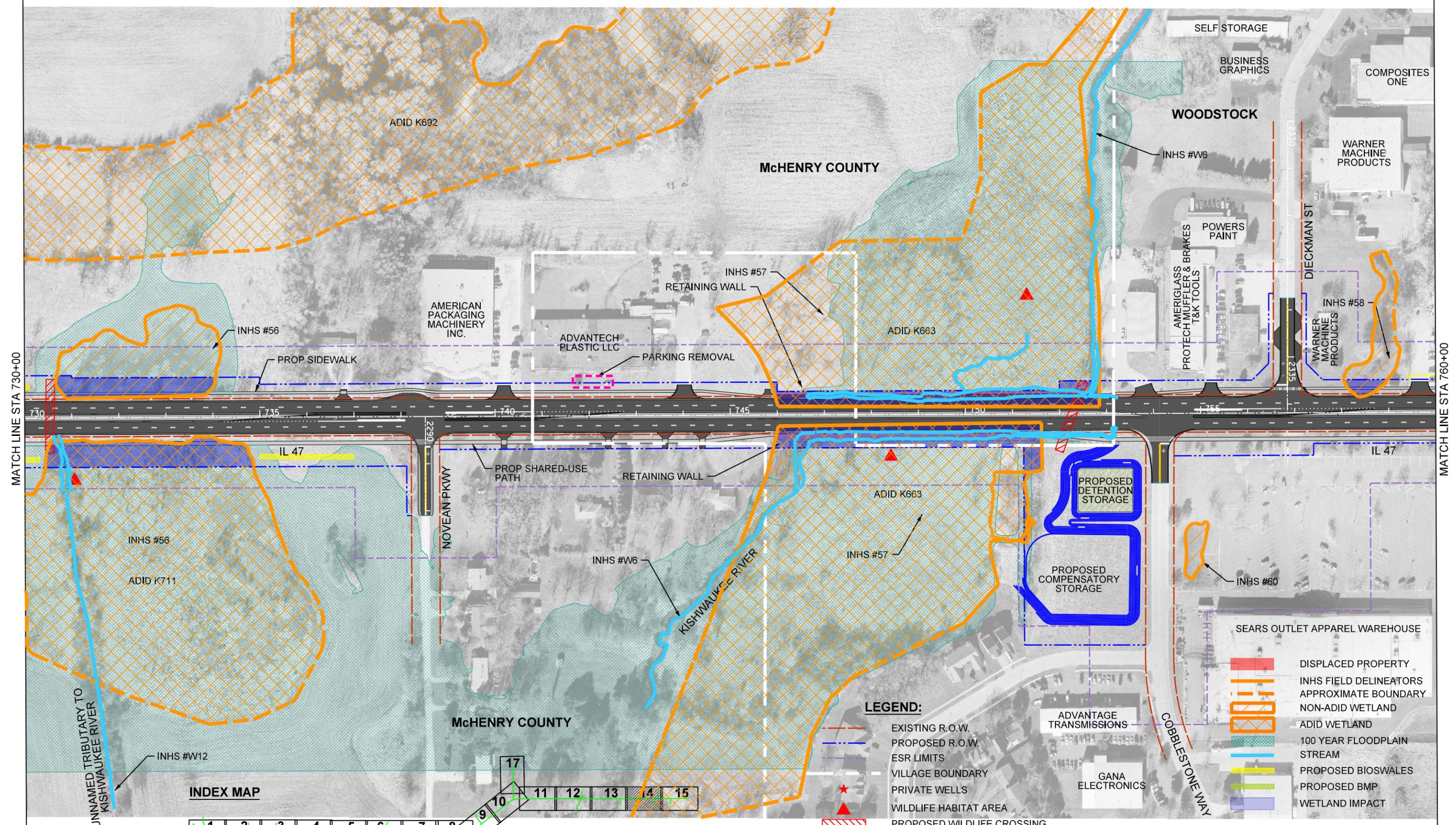
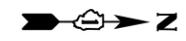
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		DRAWN - PHP	REVISED - ---
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	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

F.A.P. 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				

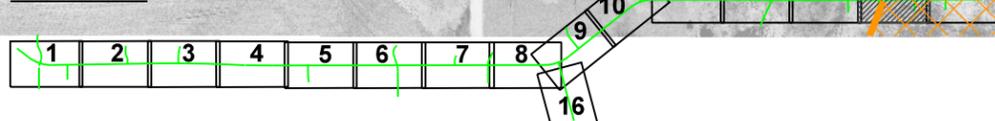
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7/8/2016



MATCH LINE STA 730+00

MATCH LINE STA 760+00

INDEX MAP



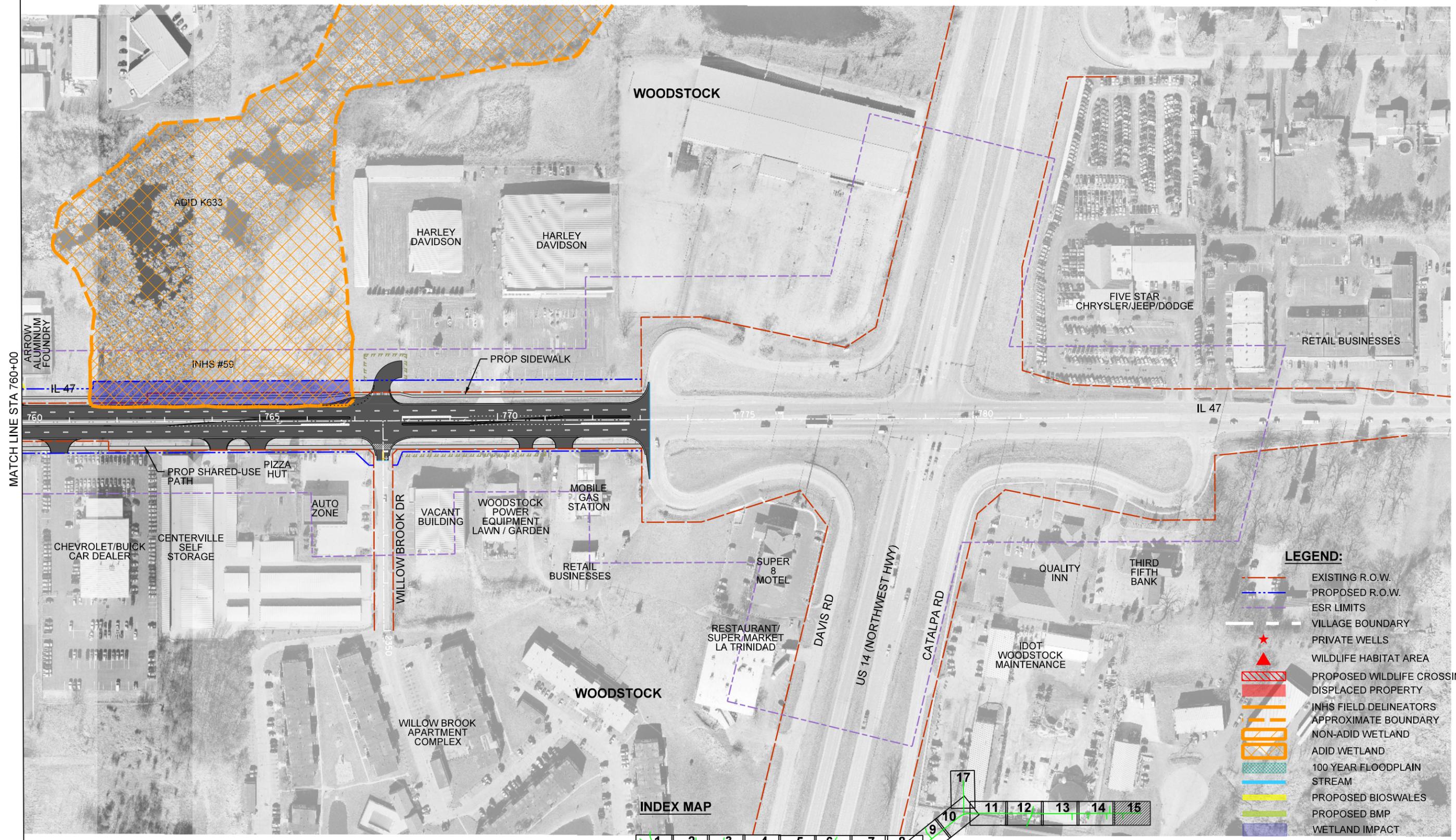
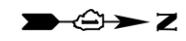
LEGEND:

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

**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints14.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ENVIRONMENTAL CONSTRAINTS	F.A.P. RTE. 47	SECTION REED ROAD TO US 14	COUNTY MCHENRY	TOTAL SHEETS 17	SHEET NO. 14	
PLOT SCALE = 200.000' / in.	DRAWN - PHP	CHECKED - ---	REVISED - ---			CONTRACT NO.					
PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---	REVISED - ---			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
				1" = 200'		SHEET NO. 14 OF 17 SHEETS		STA. TO STA.			

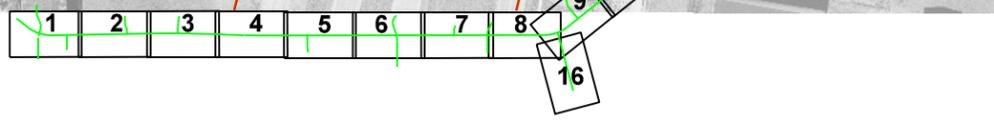
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7/8/2016



LEGEND:

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

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints15.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED - ---
		DRAWN - PHP	REVISED - ---
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	PLOT DATE = 7/8/2016	DATE - ---	REVISED - ---

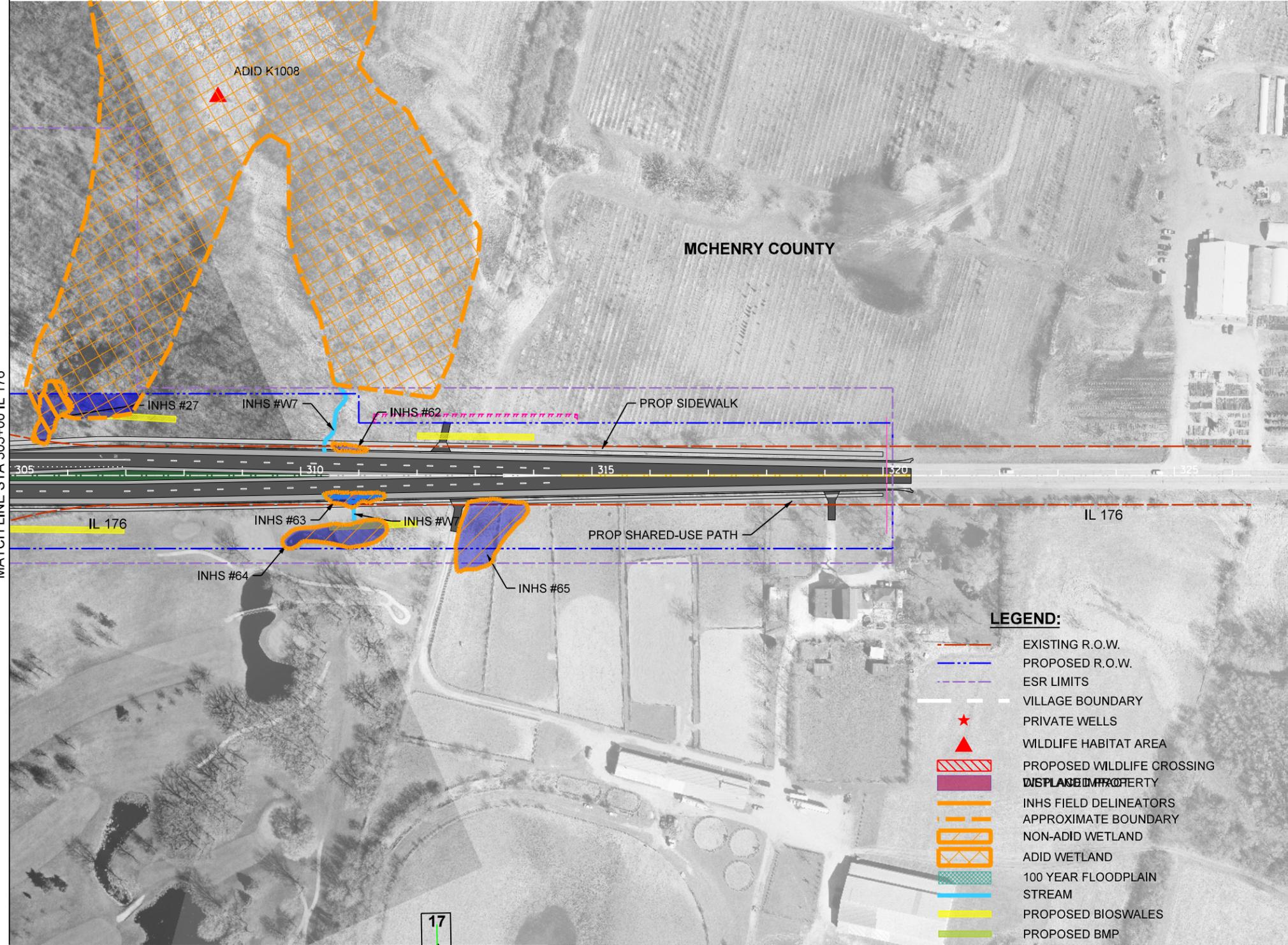
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

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

F.A.P. 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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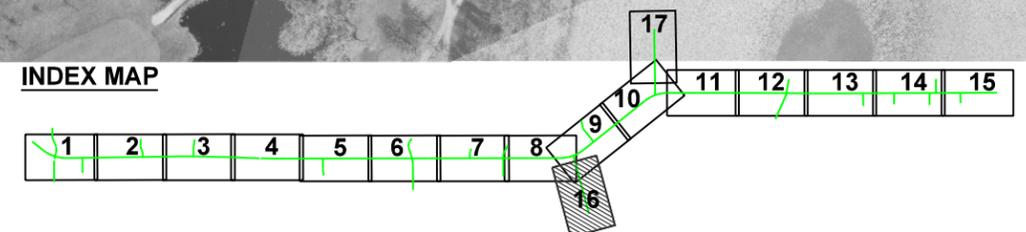


MATCH LINE STA 305+00 IL 176

LEGEND:

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

INDEX MAP



**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints16.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED -
		DRAWN - PHP	REVISED -
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	PLOT DATE = 7/8/2016	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

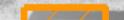
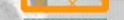
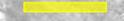
ENVIRONMENTAL CONSTRAINTS

1" = 200' SHEET NO. 16 OF 17 SHEETS STA. TO STA.

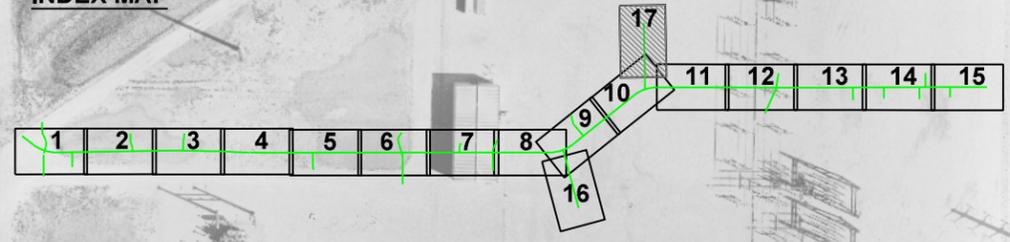
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
47	REED ROAD TO US 14	MCHENRY	17	16
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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7/8/2016

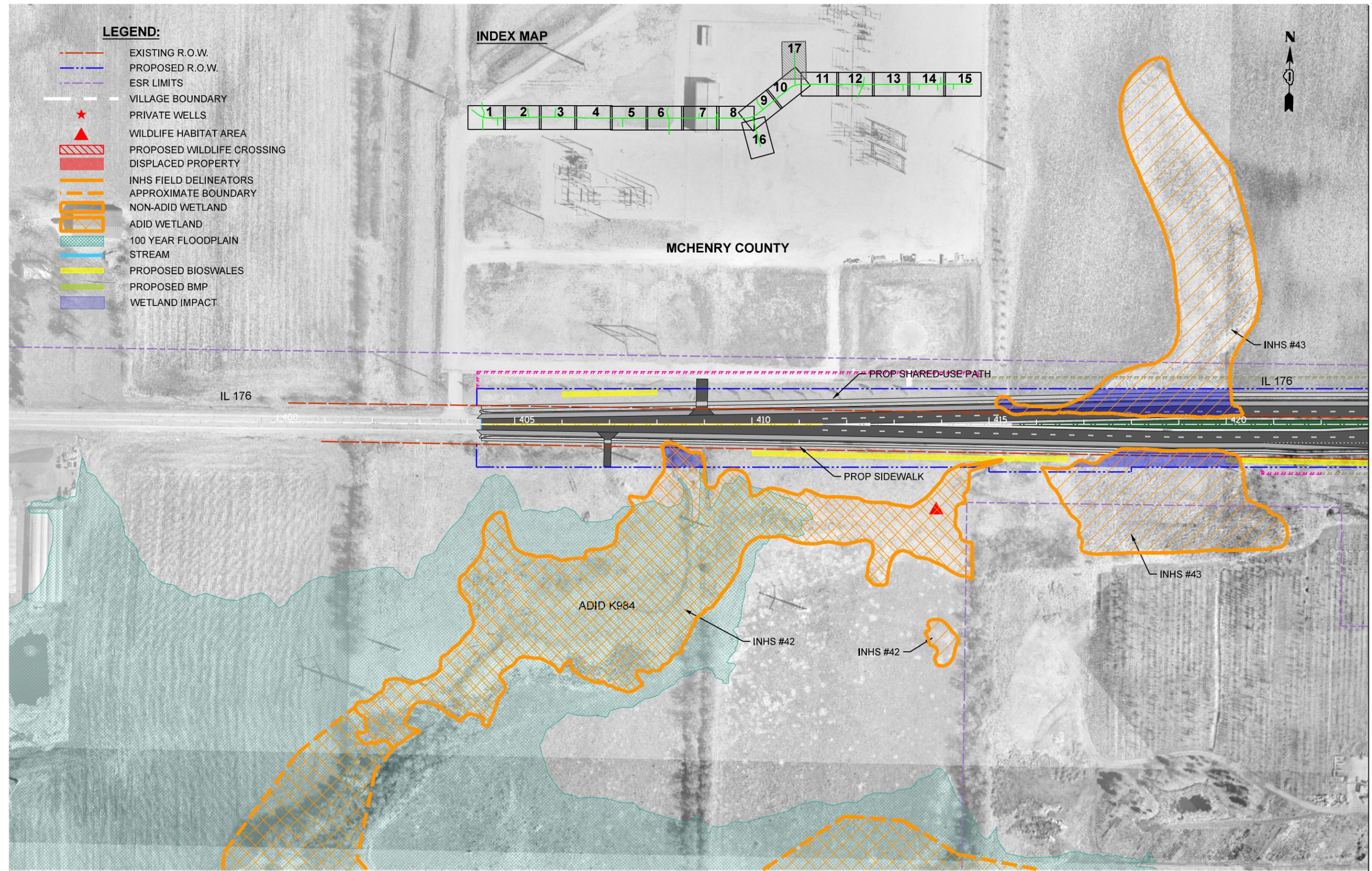
LEGEND:

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

INDEX MAP



MCHENRY COUNTY



MATCH LINE STA 423+00 IL 176

**EXHIBIT 4-1
ENVIRONMENTAL INVENTORY MAP**

FILE NAME = 39027_SHT_ENV_Constraints17.dgn	USER NAME = \$USER\$	DESIGNED - ---	REVISED -
		DRAWN - PHP	REVISED -
	PLOT SCALE = 200.000' / in.	CHECKED - ---	REVISED -
	PLOT DATE = 7/8/2016	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ENVIRONMENTAL CONSTRAINTS

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

F.A.P. 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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7/8/2016