VILLAGE OF BARRINGTON HILLS Roads & Bridges Committee NOTICE OF MEETING



Thursday, August 25, 2016 ~ 4:00 pm 112 Algonquin Road

AGENDA

- 1. Call to Order & Roll Call
- 2. Public Comments
- 3. [Vote] <u>Minutes July 14, 2016</u>

4. Discussion Items

- 4.1 <u>Veterans' Crossing Construction Update</u>
- 4.2 <u>2016 Road Program Update</u>
- 4.3 2016 Roads & Bridges Budget Status Review
- 4.4 <u>2016 Bridge Inspection Update</u>
- 4.5 Longmeadow Parkway Environmental Assessment Re-evaluation Process
- 4.6 IDOT Professional Transportation Bulletin 181- IL 62 Phase I Services
- 4.7 IL 62 Weight Limit Posting- Spring Creek Bridge
- 4.8 <u>US Board of Geographical Names Commemorative Application</u>
- 4.9 Cuba Road Bridge GL | Bridge Restoration Treasurer's Report 7/2016
- 5. Adjournment

Chairman: Brian Cecola

NOTICE AS POSTED

VILLAGE OF BARRINGTON HILLS

Roads & Bridges Committee Meeting Minutes July 14, 2016



Committee Members Present:	Trustee Brian Cecola, Chair Martin McLaughlin, Village President
	Dan Strahan, Village Engineer Robert Kosin, Director of Administration
	Robert Rosin, Director of Auffinistration

Others Present:

JR Davis Dorie Mahlmann Dawn Davis A. Robert Abboud Joseph Giannini Randall Drueck Stephanie Cecola Mary Beth Richards Rawlin Brown, ComEd James Dudek, ComEd

<u>1. ORGANIZATIONAL</u>: The meeting of the Village of Barrington Hills Roads & Bridges Committee was called to order at 4:03 p.m. by Chairman Cecola.

<u>2. PUBLIC COMMENTS</u>: JR Davis noted that he had not received prior notice that the Barrington Hills Farm property was on the agenda for the Roads & Bridges Committee meeting. Trustee Cecola noted that the topic was added to the agenda by Village Administrator Robert Kosin in order to allow for discussion of the access and make the public aware of the project.

James Dudek and Rawlin Brown of Commonweath Edison addressed the Committee with regard to the utility delays incurred as part of the Cuba Road Bridge project.

3. APPROVAL OF MINUTES: The minutes of the Roads & Bridges Committee Meeting of June 16, 2016 were approved as written.

<u>4.1 VETERANS' CROSSING / CUBA ROAD BRIDGE UPDATE</u>:</u> Mr. Strahan noted that the contractor has been busy over the last month. On June 21st the Village received notice from IDOT that the contractor was to cease operations on the Cuba Road bridge effective June 30th due to the lack of a state budget. The state directed Copenhaver to demobilize from the site by June 30th. A stop-gap budget was approved on June 30th and the contractor was notified by IDOT that they could remobilize and continue work. Copenhaver returned and continued work on July 5th after the holiday weekend, however, they did lose 3-4 days due to the demobilization and remobilization required by IDOT.

Village staff met with Copenhaver to review potential ways to expedite the schedule and the suggestion made was to close the intersection of Cuba & Buckley as shown in the contract plans. Since then the contractor has continued operations and the bridge is anticipated to be open the week of August 12th. Trustee Cecola requested that the bridge opening date be communicated to Trustee Konicek.

<u>4.2 2016 ROAD PROGRAM</u>: Mr. Strahan provided a summary of construction operations that have occurred to date. It was noted that a film crew had damaged the pavement on Lakeview Lane, incurring additional costs of around \$8,000. After discussion it was agreed that an invoice would be prepared and forwarded to the film crew for reimbursement. In addition, a request for replacement of a driveway culvert had been received on River Road in an area where flooding had occurred previously. It was agreed to include this work if budget is there is available budget.

<u>4.3 OLD HART ROAD DRAINAGE</u>: Mr. Strahan noted that further research had taken place with regard to easements that a proposed culvert on Old Hart Road would cross. He recommended delaying further action on the project until August when the final costs for the Cuba Road Bridge and the 2016 Road Program would be better understood.

<u>4.4 PAVEMENT MARKINGS ON VILLAGE ROADS</u>: Mr. Strahan reviewed the 2016 Pavement Marking Program that had been approved at the June Village Board meeting but was the subject of some questions. Mr. Strahan noted that the project was intended to refresh pavement markings where they already existed, not to add pavement markings where they did not already exist. He noted that the same scope of work was completed in 2007, 2010, 2012, and 2014 and reviewed the engineering criteria that is reviewed to determine when pavement markings are included on a roadway.

4.5 BARRINGTON HILLS FARM- MCHENRY COUNTY DRIVEWAY ACCESS: Mr. Strahan introduced the project, noting that the subject property was a 22-acre unincorporated parcel with proposed access onto Church Road, which is maintained by the Village. He noted that preliminary review comments have been provided to the applicant and a revised submittal is expected shortly.

Trustee Cecola noted a need to notify surrounding property owners of the project. JR Davis noted that representatives had also appeared before the Barrington Hills Plan Commission and a notice of the project had been sent to surrounding property owners. Randy Drueck, the project engineer, provided an overview of the site design.

<u>4.6 LONGMEADOW PARKWAY PROJECT</u>: Mr. Strahan noted that based on information received from the Kane County Division of Transportation, the target letting date for the portion of the project within Barrington Hills is January 27, 2016. Kane County DOT is currently in the process of selecting a consultant for construction engineering and anticipates beginning work in spring of 2017.

Mr. Strahan also noted that IDOT has included nearly \$4.5 million in the 2017-2022 Highway Improvement Program for the Phase I engineering for Congestion Mitigation on IL 62.

<u>6. ADJOURNMENT</u>: The meeting was adjourned at 5:03 PM.



MEMORANDUM

- To: Robert Kosin, VBH Director of Administration Brian Cecola, VBH Chairman Roads & Bridges
- From: Dan Strahan, P.E., CFM Gewalt Hamilton Associates (GHA)
- Date: August 22, 2016
- Re: Veterans' Crossing Status Update

Bridge Opening

Veterans' crossing and the adjacent roadways were reopened to traffic on August 16, 2016. While the bridge is open, there are a few remaining contract work items to be completed as well as final punchlist/cleanup work. Remaining contract work items include placement of seed and erosion control blanket, replacement trees, removal of erosion control devices, etc.



As noted previously, IDOT had approved an extension of time request from the contractor to open the bridge on August 9th, 2016; this date was extended to August 12th, 2016 due to demobilization/remobilization required as part of the state budget process. Copenhaver will be charged with liquidated damages for August 13th-August 16th, as the bridge remained closed to complete a few work items necessary to reopen the road.

Tel 847.478.9700 **•** Fax 847.478.9701

www.gha-engineers.com



Bridge Opening

A ceremony commemorating the opening of the bridge was held on August 12th, 2016. Veterans living in Barrington Hills were invited to attend a ribbon cutting ceremony and commemorate the official renaming of the bridge from the Cuba Road Bridge to "Veterans' Crossing".





MEMORANDUM

To: Robert Kosin, VBH Director of Administration Brian Cecola, VBH Chairman Roads & Bridges

- From: Dan Strahan, P.E., CFM Gewalt Hamilton Associates (GHA)
- Date: August 22, 2016
- Re: 2016 Road Program Status Update

CONSULTING ENGINEERS

625 Forest Edge Drive, Vernon Hills, IL 60061 TEL 847.478.9700 ■ FAX 847.478.9701

www.gha-engineers.com

Lorig Construction began work for the 2016 Road Program on June 27, 2016. The paving work is now complete and final topsoil, seed, and blanket placement is in progress this week. It is anticipated that the contractor will complete the project well ahead of the contract completion date of September 30, 2016.

As discussed previously, the resurfacing of River Road was added to the contract after bids came in lower than anticipated. After including the additional work, the estimated total for all work was approximately \$901,000, still below the budgeted amount of \$912,000.00. We are currently in the process of reviewing final quantities and some work still remains, but we anticipate the final contract amount will be below the budgeted amount.

As noted at the July R&B Committee meeting, a television crew utilized Lakeview Lane during the construction process and caused damage to the roadway subbase. Additional time and material costs incurred by the Village totaled \$9,475.06. An invoice in this amount has been forwarded to representatives of the television crew and they have acknowledged receipt.



CONSULTING ENGINEERS

MEMORANDUM

To: Robert Kosin, VBH Director of Administration Brian Cecola, VBH Chairman Roads & Bridges

From: Dan Strahan, P.E., CFM Gewalt Hamilton Associates (GHA)

Date: August 22, 2016

Re: 2016 Bridge Inspections

625 Forest Edge Drive, Vernon Hills, IL 60061 TEL 847.478.9700 **•** FAX 847.478.9701

www.gha-engineers.com

The Village has four structures (Veterans' Crossing on Cuba Road, the Green Rail Bridge on Oak Knoll Road, the Porter Bridge on Oak Knoll Road, and the Spring Creek culverts under Spring Creek Road) that are included in the National Bridge Inventory System. As a result, each of these bridges require biannual inspections by a structural engineer be submitted to IDOT. Wiss, Janney, Elstner Associates, Inc. is the Bridge Program Manager and completes these bi-annual inspections.

Bi-annual inspections were last completed in 2014 so will be required again in 2016. The first such inspection report was received July 24, 2016 for the Porter Bridge. Below is a summary of the status of each bridge inspection:

- Porter Bridge- Inspection Report dated July 21, 2016 was received by our office on July 24, 2016 and is included in the packet materials. The report notes that the bridge is in satisfactory condition. WJE recommends continued monitoring of the concrete slab soffit and future concrete repairs may be required but are not currently warranted.
- Spring Creek Culverts- A July inspection was anticipated for this structure. However, we received notice in June that due to an error in the IDOT database which listed the structure as maintained by Algonquin Township, a consultant for the McHenry County Division of Transportation had already completed the required inspection. This report was submitted to IDOT and the error has been corrected. The structure was found to be in satisfactory condition and the report is included in the packet.
- Veterans' Crossing- An inventory inspection will be completed in the coming months to document the as-constructed conditions as required by IDOT.
- Green Rail Bridge- The structural inspection will be completed this fall.

The expense for these inspections is included in the "Bridge Inspections" line item under the Roads & Bridges fund within the approved 2016 budget.



Via Email: dstrahan@gha-engineers.com

July 21, 2016

Mr. Daniel Strahan Assistant Village Engineer - Village of Barrington Hills Gewalt Hamilton Associates, Inc. 820 Lakeside Drive, Unit 5 Gurnee, IL 60031

Re: Porter Bridge Inspection Structure Number: 049-3076 Village of Barrington Hills WJE No. 2015.5885

Dear Mr. Strahan:

Wiss, Janney, Elstner Associates, Inc. (WJE) recently completed the inspection of Porter Bridge carrying Oak Knoll Road over Flint Creek. The inspection was performed on June 20, 2016 in accordance with the National Bridge Inspection Standards (NBIS). The Porter Bridge (SN: 049-3076) has a scheduled inspection interval of 24 months.

The deck is a conventionally reinforced concrete slab approximately 1 ft-8 in. thick and 22 ft-3 in. wide. The roadway width is 20 ft-3 in. between the reinforced concrete bridge rails. The asphalt approach pavements are continuous with the asphalt overlay on the bridge deck. The bridge is oriented in the east-west direction and Figure 1 shows the roadway looking west. Figure 2 is the south elevation view of the bridge facing northwest. The east and west abutments are constructed using reinforced concrete with integral wingwalls. At the time of inspection, the waterway had an average depth of approximately 2 ft-5 in., and a freeboard of approximately 6 ft-10 in.

Condition Survey

Overall the bridge superstructure and deck were observed to be in satisfactory condition. The soffit of the bridge deck exhibited isolated areas of concrete deterioration. For example, an approximately 3 inch strip of concrete delamination was observed on the deck soffit near the east abutment. Additionally, cracking with efflorescence, covering approximately 20 square feet, was also observed on the northern edge of the slab, near the west abutment. Although areas of poor consolidation, or honeycombing, were common on the surface of the slab soffit, the remaining areas of the concrete deck soffit were generally sound and no flexural or shear cracks were observed. Approximately four square feet of poor concrete consolidation and low cover which has spalled and exposed reinforcing steel is present at the northeast corner of the slab soffit, as shown in Figure 3. Section loss was noted on the exposed reinforcement due to the water leakage at this location; however, the deterioration is not in a critical area.

On the top surface of the deck, the north reinforced concrete parapet exhibits minor freeze/thaw damage along the lower 6 in. near the roadway surface, as shown in Figure 4. Minor debris accumulation with some vegetation is present on the roadway along both parapets. Map cracking was observed in the asphalt



overlay on the bridge deck. A roadway inspection opening was not made during this inspection, so the condition of the top of the deck slab was not determined. Based on measurements along the bridge parapet, the asphalt was estimated to be approximately 6 1/2 inches thick.

Standard galvanized steel plate-beam guard rails are connected to the concrete parapets; however, the guard rail end terminations and bridge rail transitions do not meet current IDOT standards.

The reinforced concrete substructure was observed to be in good condition overall. A vertical crack was observed in the east abutment wall, near the southeast wingwall, extending from a spall at water level, as shown in Figure 5. The crack has not noticeably increased in width since the last inspection. No undermining of the abutments or wingwalls was evident.

The waterway was observed to have areas of erosion along the channel banks. Minimal debris consisting of tree branches was observed downstream away from the bridge, as shown in Figure 6. Upstream, a large tree trunk has fallen against the southwest wingwall at the abutment and parapet (Figure 7).

A "Narrow Bridge" sign is posted for westbound traffic about 500 feet east of the bridge, but no such sign is posted for eastbound traffic. Additionally, the primary roads leading to the bridge are posted to limit truck traffic to 12,000 pounds gross and require permits for vehicles over 36,000 pounds. However, there are no weight limit signs posted immediately adjacent to the bridge. As such, data item numbers 70A2, 70B2, and 70C2 have been revised to eliminate the weight limit posting on the IDOT BBS-BIR form.

The IDOT BBS-BIR inspection form is included as an attachment to this letter.

Recommendations

The concrete slab soffit should continue to be monitored for advancement of delaminations and spalling with each inspection. Currently, concrete repairs are not required to address these conditions, but additional deterioration may warrant such repairs. Maintenance crews should continue to remove debris and vegetation that collects on the roadway along both parapets. The debris and vegetation retain water, which contributes to freeze/thaw damage at the parapets. The tree trunk supported by the southwest wingwall should be removed.

Summary and Conclusions

WJE completed an inspection of the Porter Bridge carrying Oak Knoll Road across Flint Creek. The bridge substructure was observed to be in good condition while the superstructure and deck were found to be in satisfactory condition. Only minor maintenance is recommended at this time, such as continued removal of the debris and vegetation along the edges of the roadway surface. This structure should continue to be inspected every 24 months in accordance with the NBIS.



Please call if you have any questions or require further information.

Sincerely,

WISS, JANNEY, ELSTNER ASSOCIATES, INC.

Matthe Janet

Matthew W. Jarrett Project Associate

two Lane

Steven L. Lauer, P.E., S.E. Senior Associate Licensed Structural Engineer Illinois No. 081-007838

Brif. the

Brian J. Santosuosso, S.E. Consultant Program Manager Licensed Structural Engineer Illinois No. 081-006388



FIGURES





Figure 1. Porter Bridge looking west.



Figure 2. Bridge elevation looking northwest.





Figure 3. Spalled concrete and exposed reinforcing bars at northeast corner of deck soffit with water staining.



Figure 4. North parapet with freeze/thaw deterioration and vegetation along base.





Figure 5. Vertical crack (arrow) extending from spall at south corner of east abutment.



Figure 6. View of creek looking downstream.





Figure 7. Tree trunk resting on southwest wingwall.



APPENDIX

Inspection Form BBS-BIR for Structure 049-3076



Routine Inspection Report

SN: 049-3076	District:	1	Spans: 1	Appr. Spa	ans:0	Skew:	ADT: 2	250	Truck Pct: 14
ADT Un:	Maint. Co): 04	49 - Lake	Twsp:	04 - Cu	ba		Status:	1 Open, no restrictions
Facility Carried: Oak Ki	noll Road		Auniain ality O	F P	eature C	Crossed: F	lint Creek	1	linen /Dto:
Bridge Name: Porter Bridge	ge Roau dae	ľ	viunicipality. 0	SZS-Darnin	gion mili Aaterial 8	Tvne: 1/0	1 - Concre	/ te/Slab	insp/Rie.
Insp. Intervals Routine: 2	24	F	Fracture Critica	al: 0 U	nderwate	er: 0 Sr	pecial: 0	10,0100	Element Level:
90 – Inspection Date:	06 / 20 /	2016	6	ç	90C – Te	emp. (°F): 9	0	90)B1 – In Depth: 🛛
Is Delinquent:	Reason:								
90A – Agency Program I	Manager:			9	0A3 – C	onsultant P	rogram Ma	anager:	B.Santosuosso (WJE)
90A1 – Leam Leader: 8	Steven La	uer (WJE)	9	0A2 – In	spector: N	latthew Ja	irrett (WJ	IE)
	orv condit	ion w	vith minor snal	ling delam	ination a	and expose	d reinforci	na steel	l imited water
penetration through slab. No reflective cracks in asphalt overlay. Debris has accumulated on roadway along both penetration through slab. No reflective cracks in asphalt overlay. Debris has accumulated on roadway along both parapets. A downed tree near the NE wingwall.									
				Resou	rces				
Time to Inspect (H:M):Ladder:NManli	<u>1:30</u> ft: <u>N</u>	2:00 N	Traffic Cor Bucket Truck:	ntrol: <u>N</u> <u>N</u> N	N Boa Other:	t: <u>N</u> N	Waders	: <u>Y</u> `	Y Snooper: <u>N</u> N
	Prev	New	In	spector's	Apprais	als Comr	nents		
58 – Deck Condition:	<u>6</u>	6	Map crackir	ng in aspha	lt overlag	y.			
59 – Superstructure Co	nd: <u>6</u>	6	Minor freeze	e/thaw at n	orth con	crete parap	et. Isolated	d areas	
of concrete delaminatio	n/spalling	on c	leck soffit. Isol	ated area	of efflore	scence.			
60 – Substructure Conc	l: <u>7</u>	7	Good condi	tion overall	, vertical	crack and	spall noted	d in	
east abutment near inte	rsection v	vith s	outheast wing	wall.					
62 – Culvert Condition:	N	N	_						
			<u>_</u>						
61 – Channel Condition	: <u>6</u>	6	Channel co	ntains mind	or amoun	its of debris	in waterw	ay.	
			-						
71 – Waterway Adequa	cy: <u>7</u>	7	Slight chane	ce of overto	opping br	ridge deck a	and roadwa	ay	
approaches.			L						
72 – Approach Rdwy Al	lian: 8	8	No speed re	eduction re	auired				
P.P. Starter of Contract of Co	5 -				1				
111 – Pier Navig Protect	ion: <u>N</u>	N							
			90B	 Inspecti 	on Rem	arks:			
Structure in satisfactory	condition	with	minor spalling	delaminat	ion, wate	er staining,			
and exposed reinforcing	steel. Lim	ited	water penetra	tion throug	h deck sl	ab. Map cra	acking		
noted in asphalt overlay,	though n	ot ref	lective of cond	crete deck.	Debris/v	egetation c	ontinues to	o collect	
in roadway along both pa	arapets. N	linor	debris is locat	ed in the d	ownstrea	am waterwa	у.		
Lower portion of tree true	nk rests o	า รอเ	thwest wingea	all.					

Routine Inspection Report

Structure Number: 049-3076

Additional Inspection Data							
36A – Bridge Railing A	dequacy: <u>2</u> 2 Rail Types:						
Approach Guardra	il Adequacy: 36B – Transitions: <u>2</u> 2 36C – Guardrail: <u>2</u> 2 36D	– Ends: <u>2</u> 2					
	Prev New Prev New	Prev New					
108A – Wearing Surfac	ce Type: \underline{G} G 108B – Type of Membrane: \underline{D} D 108C – Deck Pr	otection: <u>J</u> JJ					
108D – Total Deck Thi	CKNESS (II.): 26.5 Prev New						
59A – Paint Date (Mo/	Yr):/ /						
59B – Paint Type: – – – – Color: Fascia –; Inter. –; Railing –							
59C – Utilities Attached	d:						
	70A2 – Single Unit Vehicles: 06 Tons						
Weight Limit Posting:	70B2 – Combination Type 3S-1 (3 or 4 axles): <u>06</u> Tons						
weight Linit Posting.	70C2 – Combination Type 3S-2 (5 or more axles): <u>06</u> Tons						
	70D2 – One Truck at a Time:						
Joint Openings (In.)							
	90B – Inspection Remarks Continued:						
	Signature	Date					
Concultant Dramster	der: Jun Lane	07 / 19 / 2016					
Agonov Brogram Mar		0//19/2016					
Agency Frogram Man	ayer.	1 1					

REPORT INDEX

(S.N.056-3076)

	Bridge Inspection Documentation & Maintenance
\sum	Bridge Summary Report
	IDOT Inventory Turnaround Report (S-105)
\sum	IDOT Master Structure Report (S-107)
	IDOT Inspector's Inventory Report (S-114)
$\Box N$	Element Level Inspection Report (BBS-ELI)
8	IDOT Special Feature Inspection Report (BBS SI-1)
	IDOT Routine Inspection Report (BBS-BIR)
	Resistograph Results
	Inspection Sketches
\sum	Photograph

BRIDGE INSPECTION DOCUMENTATION & MAINTENANCE

STRUCTURE NUMBER: 056-3076

INSPECTION TYPE: 24 months routine

DATE: 5/16/16

INSPECTORS PRESENT: Brad Kleinmaier

Cody Hansen

<u>TIME REQUIRED</u>: (Approx. # of hours to complete the field Inspection)

0:30 **hours**

ACCESS EQUIPMENT: (List any equipment used to inspect the bridge)

Hip Waders Tall Ladder	
Traffic Control Snooper	
Other:	IN C
MAINTENANCE ITEMS:	<u>PHOTO REF. NO</u> .
Remove trees growing above and immediately next to the culverts	Photos 3 & 4

Illinois Department of Transportation

SN: 056-3076	District:	1 Span	s: 3	Appr.	Spans:	0	Skew:	1	ADT:	700	Truck Pct:	5
ADT Un: Mai	int. Co: M	CHENRY	Twsp	: ALG	ONQUIN			5	Status:	DPEN - NO	RESTRICT	
Facility Carried: Spring	g Creek Ro	bad			Feature	e Cro	ssed: S	pring Cr	eek			
Location .25M W of Ri	dge Rd.		Muni	cipality	: BARRII	NGTO	ON HILLS	Team	n/Sub: /		nsp/Rte:	
Bridge Name:				Materia	I & Type:	STE	EL/CUL	/ERT				
Insp. Intervals Routine	9: 24	Fracture C	ritical:	l	Jnderwa	ter:	S	pecial:	N/A	Elen	nent Level:	24
90 – Inspection Date:	5116	116 90	C – Tem	p. (°F)	65	90E	31 – In-De	epth				
Is Delinquent: Rea	ason:											
90A – Agency Program	Manager:				90A	3 – C	onsultan	Program	n Manage	er: Bria	" Conve.	rse
90A1 – Team Leader:	Brad	Kleinman	ier	90A	2 – Inspe	ector:	Bra	e Kle	inmai	er		
90B – Inspection Remarks: STRUCTURE IS IN SATISFACTORY CONDTITION WITH LAMINAR CORROSION AT BASE OF WALLS AND FLOOR. SEDIMENT HAS BUILT UP IN THE WEST CULVERT PIPE. SOME DEBRIS HAS ACCUMULATED UPSTREAM NEAR THE WEST PIPE OPENING.												
				F	Resource	S						
Time to Inspect (H:M):	1:0 0	30 Traffic	Control:		Boa	t:	V	Vaders:	WY	Snooper:		
Ladder: Manlift	:	Bucket Tr	uck:		Other:							
	Inspector's Appraisals											
58 – Deck Condition:	Pre	New							Comments			
59 – Superstructure Cor	nd: N	N										
60 – Substructure Cond	: N	N										
62 – Culvert Condition:	6	6 m	inor r	ust a	at w	ate	rline	, 10	sig	nifican	t sec	tion
61– Channel Condition	5	8 U,	stre	um c	channe	21	has	been	clea	aned	of	
71 – Waterway Adequad	cy: 8											
72 – Approach Rdw Alig	jn: 8											
111 – Pier Navig Protec	tion: N											
			9	0B – Ins	spector I	Rema	rks:					
Roadway	is po	sted	bui	t tl	ne si	fru	cture	e it.	self	doe	s no	t.
have a po	osting	•										

BBS-BIR (Rev. 03/04/14) Sheet 1 of 2

									Ro	utine Inspe	ctio	n Report
									Str	ucture Numbe	er:	0563076
				Additi	onal In	spection	Data					
264 Dridge Deiling A		Prev	New									
136A – Bridge Railing A	dequacy:	1	1	Rail Types.	ev New			1	New			New
Approach Guardra	il Adequacy	: 36B	– Tr	ansitions: 1	1	36C –	Guardrai	1: 1	1	36D – Ends		1 /
108A Mooring Surfa		Prev	New		Describ	. .						
108A – Wearing Suria	ane:	G	6	If "E Other" I	Describ	e						
108C – Deck Protection	n [.]		Ę	If "I-Other" D)escribe	с						
108D – Total Deck Thi	ckness (in):	0.0	0		/0301100							
		0.0	Prov 1									
59A - Paint Date (Mo/	Yr):			/								
59B – Paint Type:						<u>Color:</u>	Fascia	a:	In	ter:	Raili	ng
59C - Utilities Attacher	4.		Г] If	- "B-Oth	er" Descr	ihe [.]					
	-			<u> </u>	Dom	0. 0000	Prov N	lew				
	70A2 - Sin	igle U	nit Ve	ehicles:			-6-	Ton	1			
Weight Limit Posting	70B2 - Co	mbina	tion	Type 3S-1 (3	or 4 ax	es):	-6-	Ton	1			
Troight Einit Pooling.	70C2 - Co	mbina	tion	Type 3S-2 (5	or more	e axles):	-6-	Ton	1			
	70D2 – On	e Tru	ck at	a Time:			0]			
				90B – Inspe	ector R	emarks (Continue	ed:				
Inspection Team Lead Consultant Program I	der: Manager:	d' B	ru	el Al	ein	Signa	ture				5	Date
. Joney i regram man	Jon	D	un	h	Cen	vene					5	19 16

BBS-BIR (Rev. 03/04/14) Sheet 2 of 2

Illinois Department of Transportation Structures Information Management System Master Structure Report (S-107)

Structure Number: 056-3076 District: 1

				In	ventory Da	ita						
Facility Carried:	Spring Creek Road		Bridge Name:				Sufficiency Rating:		81.0	Structure Length:		30.6
Feature Crossed:	Spring Creek		Location:	.25M W of	Ridge Rd.		HBP Eligible:		No	AASHTO Bridge L	ength:	30.6
Bridge Remarks:							Replaced By:			Length of Long S	pan:	9.8
Bridge Status:	1 OPEN - NO RESTRICT	St	atusDate:	09/2012]		Replaces:			Bridge Roadway	Nidth:	19.5
Status Remarks:							Last Update Date:	09/	07/2012	Appr Roadway Wi	dth:	19.5
Maint County:	056 MCHENRY N	aint Towns	ship: 02 ALG	ONQUIN			Parallel Structure:		None	Deck Width:		19.5
Maint Responsibility:	09 TOWNSHIP OR ROAI	DISTRICT	Г				Multi-Level Structur	re Nbr:		Sidewalk Width R	ight:	
Service On/Under:	1 HIGHWAY		/ 5 WA	TERWAY			Skew Direction:		None	Sidewalk Width L	eft:	
Reporting Agency:	4 MUNICIPALITY						Skew Angle:	D		Navigation Cont	rol:	0 No
Main Span Matl/Type:	3 STEEL		/ 19 CULVER	RΤ			Structure Flared:		No	Navigation Horiz	Z Clear:	
Nbr Of Main Spans:	3 Nbr Of Approach Sp	ans: 0					Historical Significat	nce:	No	Navigation Vert	Clear:	
Approaches							Border Bridge S	State:		Culvert Fill De	pth:	2.0
Near #1 Matl/Type:			/				Bdr State SN:			Number Culve	rt Cells:	3
Near #2 Matl/Type:			/				Bdr State % Res	sponsibi	lity:	Culvert Openi	ng Area:	170.0
Far #1 Matl/Type:			/				Structural Steel	Wt:		Culvert Cell H	eight:	6.60
Far #2 Matl/Type:			/				Substructure M	aterial:		NN Culvert Cell W	idth:	9.80
Median Width/Type:	Ft. / 0 None					Rated By	: 2 IDOT		Rate Met	hod: D		-
Guardrail Type L/R:	0 None /	0 None	I	nventory R	ating: 1	.000 (36)	Load Rating Date:)8/24/20 ²	12	***Railroad Cross	ing Info*	**
Toll Facility Indicator:	0 No Toll		C	perating R	ating: 1	.360 (48)			Cross	sing 1 Nbr:		
Latitude: 42.168741	136 Longitude: 88.204	47602	D	esign Loa	d: 99 UNK	NOWN			Cross	sing 1 Nbr:		
Deck Structure Type:	N N/A		Deck Struc	ture Thicki	ness:	0.0 SD:	N FO: Y		RR La	ateral Underclear:		
Sidewalks Under Struct	ture: 0 None								RR Ve	ertical Underclear:	Ft	In
	Key Rout	e On Dat	ta				Ke	y Rout	e Undei	r Data		
Key Route Nbr: MUNIC	IPAL STREET	3070	Station: 2.6500)					Station	:		
Appurtenances Main R	oute 00323		Segment:						Segme	nt:		
Inventory County: 05	56 MCHENRY		Linked:	Y					Linked	:		
Township/Road Dist 02	2 ALGONQUIN	Na	tl. Hwy System:	Not o	n NHS				Natl. H	wy System:		
Municipality 0323	BARRINGTON HILLS	Inv	entory Direction	: [][Invento	ory Direction:		
Urban Area: 1051		Cu	irr AADT Yr/Coun	t: 2013	/ 700				Curr A	ADT Yr/Count:	/	
Functional Class: 7		Es	t Truck Percentag	ge: 5	5 %				Est Tru	ck Percentage:		%
** CLEARANCES ** Sou	uth/East North/West	Nu	mber Of Lanes:	2	2	South/Eas	st North/West		Numbe	r Of Lanes:		
Max Rdwy Width: 2	24.0	On	ne Or Two Way:	2 T	wo-Way				One Or	Two Way:		
Horizontal: 2	26.0 0.0	Ву	pass Length:	C)				Bypass	Length:		
Min Vertical: 99	Ft 11 In 99 Ft 11 In	Fu	ture AADT Yr/Cnt	: 2032	/ 2300	Ft	In Ft In		Future	AADT Yr/Cnt:	/	
10 Ft Vertical: 99	Ft 11 In 99 Ft 11 In	De	signated Truck R	te: NON	E	Ft	In Ft In		Design	ated Truck Rte:		
Lateral:		Sp	ecial Systems:	No]		Ft Ft		Special	I Systems:		
	*** Marked Ro	ute On D	Data ***				*** Mark	ed Rou	ute Und	er Data ***		
	Designation		Kind		Number		Designation			Kind	N	umber
Route #1: 1 Mainlin	ne	5 Muni	cipal Streets									
Route #2: 1 Mainlir	ne											
Route #3: 1 Mainlir	ne											

Illinois Department of Transportation Structures Information Management System Master Structure Report (S-107)

Structure Number	: 056	-3076	District:	1									
				[Data Rela	ated to Ins	pection Informati	on					
***Inspe	ection Ir	ntervals ***			*** Ma	aximum Allo	wable Posting Limits	***			Bridge P	osting Level:	
Routine NBIS: 24	4 MOS	Underwater:	MOS	One Truck A	t A Time:	0	Combination Type	3S-1:		Tons	5 No Po	osting Required	
Fracture Critical:	MOS	Special:	Ν	Single Unit \	ehicles:	Tons	Combination Type	3S-2:		Tons			
					Inspec	ction/App	aisal Information						
Inspection Date:		06/30/201	4 Insp	ection Tempera	ture:	86 Deg. F	Insp by (Name):	Cram	ptonD		**	Actual Posted L	imits **
Deck:		N NOT A	PPLICABLE				Insp by (Name):	Taylo	orD		Single	Unit Vehicles:	6 Tons
Superstructure:		N NOT A	PPLICABLE				Utilities Attached:				Combi	nation Type 3S-	1: 6 Tons
Substructure:		N NOT AI	PPLICABLE								Combi	nation Type 3S-	2: 6 Tons
Culvert:		6 SATISF	ACTORY CO	NDITION - MIN	OR DETER	RIORATION					One Tr	uck At A Time:	0
Channel and Protection	on:	5 FAIR C	ONDITION -	MINOR SECTIC	N LOSS, C	CRACKS	Deck Wearing Surf:	G	BITUM	INOUS OVE	RLAY	Last P	aint Type:
Structural Evaluation:		6 EQUAL	TO PRESEN	NT MINIMUM CF	RITERIA		Deck Membrane:	F	NONE				
Deck Geometry:		2 INTOLE	ERABLE - HIG	GH PRIORITY F	OR REPLA	CEMENT	Deck Protection:	J	NONE				
Underclearance-Vert/L	_at.:	N NOT A	PPLICABLE				Total Deck Thick:	0.0					
Waterway Adequacy:		8 EQUAL	TO PRESEN	IT DESIRABLE	CRITERIA		Last Paint Date:						
Approach Roadway Al	lign:	8 EQUAL	TO PRESEN	IT DESIRABLE	CRITERIA		Inspection Remarks	s:					
Bridge Railing Apprais	sal:	1 No Brid	lge Railing				STRUCTURE IS IN S	SATISF	ACTOR	Y CONDTITI	ON WITH LAMIN	NAR CORROSIO	N AT BASE OF
Approach Guardrail:		111 Does N	lot Exist	Does Not Exist	Does N	ot Exist	DEBRIS HAS ACC I	R. SED		HAS BUILT U STREAM NE	AR THE WES		E. SOME
Pier Navig Protection:		N N/A					DEBITIO HAO AOO C						
Inspection Date: Temperature: Inspected By: Inspection Remarks:		Inspe Inspe	ction Method cted By:	l:	Appra	aisal Rating:							
			Sco	our Critical In	nformatio	on					Mi	scellaneous	
Rating: 8 CALCULA	ATED SO	COUR ABOVE	FOOTING	E	aluation N	lethod:	B Rational Analysis				Fracture Critic	al Members:	No
Analysis Date: 05	5/09/201	3		Aı	alysis By:		Central Bureau B&S				Microfilm Data	a Recorded:	No
		Constr	uction Info	ormation						•			
Year: 2012	Origi	nal		Red	constructed								
Route:		Sta:			S	Sta:							
Section Nbr:													
Contract Nbr:													
Fed Aid Pr #:													
Built By: 9 TC	WNSHI	P OR ROAD D	ISTRICT										
					Р	roposed I	mprovement						
C	ost Esti	mate Year:		Lengt	n:						*** Costs in	Dollars ***	
Ţ	ype of V	Vork:								Bric	lge Cost:		
D	one By:									Roa	dway Cost:		
R	emarks	:				-			-	Tota	al Project Cost:		

ALGONQUIN TOWNSHIP

Spring Creek Road Spring Creek Structure Number: 056-3076

McHenry County 2016



1) LOOKING EAST OVER THE STRUCTURE



2) LOOKING AT NORTH CHANNEL



ALGONQUIN TOWNSHIP

Spring Creek Road Spring Creek Structure Number: 056-3076



3) LOOKING AT SOUTH CHANNEL



<u>COMMENTS</u>

Tree growing directly over top of culverts

4) LOOKING AT SOUTH END OF CULVERTS



ALGONQUIN TOWNSHIP

Spring Creek Road Spring Creek Structure Number: 056-3076



5) VIEWING INTERIOR OF CULVERT BARREL



COMMENTS

Slight rust occurring at waterline – no significant section loss

6) VIEWING RUST AT WATERLINE





Environmental Reevaluation

Longmeadow Parkway, Huntley Road to Illinois Route 62, County of Kane, Illinois

REEVALUATION **ENVIRONMENTAL ASSESSMENT**

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

U.S. Department of Transportation Federal Highway Administration (FHWA)

and

Illinois Department of Transportation (IDOT)

July 26, 2016 Date of Approval

The following persons may be contacted for additional information concerning this document:

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The proposed action consists of the construction of a new highway between Huntley Road and Illinois Route 62 and a new bridge crossing over the Fox River in Kane County. The length of this improvement from western terminus to eastern terminus is approximately 5.6 miles, with another 3.7 miles of intersecting road improvements. Longmeadow Parkway will impact eleven wetlands for a total acreage of 4.16 acres. The total number of trees impacted by this project (including dead trees) is approximately 5,765 trees.

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GLOSSARY

ADID	Advanced Identification
ADT	Average Daily Traffic
BMPs	Best Management Practices
CFR	Code of Federal Regulation
CMAP	Chicago Metropolitan Agency for Planning
CNE	Common Noise Environment
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
D&E	Design and Environmental
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
FPDKC	Forest Preserve District of Kane County
FTA	Federal Transit Administration
FQI	Floristic Quality Index
GPS	Global Positioning Systems
HEI	Health Effects Institute
HFV	High Functional Values
HHV	High Habitat Values
HQAR	High Quality Aquatic Resource
IDNR	Illinois Department of Natural Resources
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
IGA	Intergovernmental Agreement
INAI	Illinois Natural Area
INHS	Illinois Natural History Survey
IRIS	Integrated Risk Information System
ISGS	Illinois State Geological Survey
IWPA	Interagency Wetland Policy Act
KDOT	Kane County Division of Transportation
LOS	Level of Service
MSE	Manufactured Structural Earth
MSAT	Mobile Source Air Toxics

NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NIPC	Northeastern Illinois Planning Commission
OSLAD	Open Space Lands Acquisition
OWR	Office of Water Resource
OMS	Operational Management Strategies
PESA	Preliminary Environmental Site Assessment
PSI	Preliminary Site Investigation
RECs	Recognized Environmental Conditions
ROD	Record of Decision
RCRA	Resource Conservation and Recovery Act
ROW	Right-of-Way
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
TNM	Traffic Noise Model
TIP	Transportation Improvement Program
TDR	Travel Demand Reduction
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VPH	Vehicles Per Hour
VMT	Vehicle Miles Traveled
WOUS	Waters of the United States



SECTION I: INTRODUCTION & PURPOSE AND NEED

1. Introduction

This document has been prepared to present updated information regarding the environmental studies that have been completed since the Environmental Impact Statement (EIS). The EIS was dated November 2001 and the signature date of the Record of Decision (ROD) was May 13, 2002. In the EIS, this project was referred to as the Bolz Road Corridor, but is now known as the Longmeadow Parkway. As the project moved through the design process the required right-of-way (ROW) was refined. The final ROW footprint of this project is shown on Figure 1. A reevaluation dated November 10, 2009 was completed for the change to toll the bridge which led to the determination that a supplemental EIS was not needed. Other actions that have occurred subsequent to the ROD include Design Report approval received on December 3, 2013. There are no alignment changes in the reevaluation from the alignment selected in the ROD.

Pursuant to 23 Code of Federal Regulations (CFR) 771.130(c), this Environmental Reevaluation is being prepared to assess the impacts of the new information and circumstances that have occurred with the project. Figure 1 shows the project area and new resources being discussed in this document. The new information and circumstances include the following:

- a. The construction of neighborhoods adjacent to the project corridor.
- b. Air quality including the designation of Kane County as a non-attainment area for PM_{2.5}., and addition of construction-related particulate-matter and mobile source air toxics National Environmental Policy Act (NEPA) compliance language
- c. Reassessing noise impacts based on the most recent IDOT noise policy and procedures
- d. Federal listing of the Northern long eared bat as a threatened species under the Endangered Species Act.
- e. Results of the Bald eagle nest survey
- f. A wetland delineation was conducted and wetland impacts were reevaluated
- g. Section 4(f) Coordination related to Buffalo Park Forest Preserve
- h. Section 4(f) Coordination related to Fox River Shores Forest Preserve
- i. Section 4(f) Coordination related to Brunner Family Forest Preserve
- j. A commitment change from providing clay lined ditches to providing current Best Management Practices (BMPs) that allow for infiltration.
- k. A change from no piers in the Fox River to including piers in the Fox River
- I. An increase in the acreage of trees impacted (from 2.7 acres to 28.7 acres)
- m. A change in acreage of wetland impacted (from 0 to 4.16)
- n. Visual impact resulting from taking a strip of land in front of the Perry Lathrop house which is an historic property.
- o. Inclusion of the Starhead topminnow which has recently been State-listed as a threatened species.
- p. The large presence of Smallmouth bass in the Fox River within the project limits.

This reevaluation also will evaluate each resource area to determine if there are any other changes in impacts with the project. This reevaluation will be made available for public review and comment. Following the public review and comment opportunity, Federal Highway Administration (FHWA) will either determine a Supplemental EIS is required based on new significant impacts; or FHWA will issue a "Finding of No Significant Impact" if no new significant impacts are identified.

The proposed action consists of the construction of a new highway between Huntley Road and Illinois Route 62 and a new bridge crossing over the Fox River in Kane The proposed project corridor is located in the Villages of Algonquin, County. Carpentersville, Barrington Hills, and in unincorporated Kane County. The Algonguin section of the improvement is on the west side of the Fox River between Randall Road and White Chapel Road, unincorporated sections of Kane County are mainly between White Chapel Lane and the east side of the Fox River, the Carpentersville section is on the east side of the Fox River, and the Barrington Hills section is east of the Village of Carpentersville between Illinois Route 25 and Illinois Route 62. The existing section of Longmeadow Parkway is located between Randall Road and White Chapel Road. The proposed Longmeadow Parkway typical cross section consists of two 11-foot lanes in each direction separated by a landscaped barrier median. Signalized intersection improvements would be provided at Huntley/Bover Road, Randall Road, Sleepy Hollow Road, Illinois Route 31, Bolz Road Connector, Illinois Route 25 and Illinois Route 62 (Algonquin Road). Sandbloom Road would pass under the new bridge over the Fox River and intersect with Bolz Road. The existing T-intersection of Huntley Road and Boyer Road would be reconstructed as a four-legged intersection. The proposed roadway would transition into Huntley Road on the west terminus into a twolane cross section. The length of this improvement from western terminus to eastern terminus is approximately 5.6 miles, with another 3.7 miles of intersecting road improvements.

2. Purpose and Need

The Purpose and Need of the Longmeadow Parkway project is consistent with and a reiteration of the Purpose and Need stated in the EIS and in the Design Report. The needs that existed at the time the EIS was developed still exist and the deficiencies that the project meant to address are still relevant.

Purpose

The purpose of the Longmeadow Parkway is to provide a transportation corridor that increases access across the Fox River in the north region of Kane County. The Fox River represents a physical barrier, which limits east-west access in this region. The purpose recognizes this barrier and refines the objectives to address it more precisely in terms of land use and transportation issues. The three objectives are:

- Enhance the transportation network by reducing congestion and providing alternate and more direct routes;
- Serve existing land use in the region through efficient access to central business districts, public services, and employment and commercial centers; and
- Serve proposed land use in conformance to local and county land use and resource management plans, which encourage compact, contiguous growth for the eastern portion of the region and preserve the rural qualities of the western portion of the region.

Need

Enhance the Transportation Network – There are no major river crossings within the 5.1 mile stretch between the Illinois Route 72/Main Street Bridge, in the Villages of East and West Dundee, and the Illinois Route 62/Algonquin Road Bridge, in the Village of Algonquin. The Illinois Route 72/Main Street Bridge in East and West Dundee facilitates both local and regional traffic. Illinois Route 72/Main Street is congested through East and West Dundee with numerous driveways and businesses fronting the road. The Illinois Route 62/Algonquin Road Bridge through Algonquin is consistently congested, due to lack of capacity through the intersection of Algonquin Road and Illinois Route 31 on the west side of the Fox River. The Huntley Road/Main Street Bridge, in Village of Carpentersville, is a two-lane bridge that primarily serves local traffic and terminates at Lord Avenue, four blocks east of the Fox River. Providing highway improvements within this area will enhance travel by reducing travel times and providing safer traveling conditions.

Capacity – The proposed Longmeadow Parkway corridor would provide access across the Fox River, reduce congestion and provide an alternate and more direct east-west route within this northern region of Kane County. As documented in the EIS, the need is for more than relief to an existing roadway or bridge; the traffic demands for crossings of the Fox River, in the immediate project area, currently exceed the effective capacity available. Therefore, the benefit of adding an additional bridge crossing over the Fox River will improve the entire roadway network within this region. Instead, network modeling by the Chicago Metropolitan Agency for Planning (CMAP) indicate the network will be more efficient since trips will be more direct on a less congested network. Furthermore, east-west through traffic will be diverted from the downtowns of Carpentersville, Algonquin and East and West Dundee. Traffic modeling has indicated traffic volumes will continue to grow, with or without a new bridge crossing, resulting in higher levels of congestion within the subject roadway network. The increase in traffic volumes is due to continued growth in population, employment, and automobile usage within the region.

The need for the proposed improvement is evident from an examination of the existing and projected traffic volumes within the project corridor. With projected traffic volumes ranging from 8,000 to 33,000 vehicles per day in 2040, motorists will benefit from a more direct regional corridor that allows crossing of the Fox River with minimal delays. Figure 2 in the Appendix shows the range in the Average Daily Traffic (ADT) values for the existing and 2040 design year. The ROD was based on 2020 traffic projections. The 2013 Design Report and this reevaluation utilize 2040 traffic projections. Differences in traffic volume projections between 2020 and 2040 vary depending on locations within the corridor. West of the Fox River, there are generally minimal projected increases in traffic volumes. The only increase, west of the Fox River, is west of Boyer Road on Huntley Road where volumes are expected to increase 65% from 2020 to 2040. East of the Fox River, there is an anticipated decrease in volumes between 2020 projections and 2040 projections, ranging anywhere from 21% to 55%. Though the 2040 projections show wide variances from the 2020 projections, the increase between the existing volumes and the 2040 projections still support the need for the proposed improvement. The projected increases on existing Longmeadow Parkway range from 106% along existing Huntley Road to 1,418% east of Sleepy Hollow Road.
Land Use Development and Community Cohesion – The Villages of Carpentersville and Algonquin, as well as unincorporated Kane County, are experiencing rapid growth in residential developments west of the Fox River. As documented in the EIS, CMAP formerly known as the Northeastern Illinois Planning Commission (NIPC), projects a growth trend in housing and jobs to continue into the year 2020, when Kane County's population is projected to reach 552,944, a 74% increase over the 1990 population. East of the Fox River, the Villages of Carpentersville and Algonquin have seen residential developments occur north of Bolz Road from the Fox River to Illinois Route 25. The proposed Longmeadow Parkway corridor will support and complement existing developments and the expected continuation of growth within the region.

The 2010 population for Kane County was 508,482 per the U.S. Census Bureau. Kane County's population is projected to reach 789,295 by 2040, an increase of 55.2% over the 2010 population. This is an increase of 149% over the 1990 population.

The original EIS analyzed present day land uses at the time, which included one new subdivision (Silverstone Lake Subdivision) located along the north side of proposed Longmeadow Parkway between Amarillo Drive and Alameda Drive. Figure 3 shows the land use changes that have occurred since 1999.

Roadway Deficiencies and Safety – An existing three-leg intersection is located at Huntley Road and Boyer Road. When Longmeadow Parkway is constructed, the fourth leg of the intersection will be built. Between 2009 and 2012, there were four rear-end crashes, three fixed-object crashes, five side-swipe crashes, and one overturned vehicle for a total of thirteen crashes. Twelve of the crashes were property damage only; one crash (NB rear-end) resulted in an injury. Capacity improvements at the intersection will likely reduce rear-end collisions and the center barrier median to be added on Huntley Road will likely reduce opposite direction side-swipe collisions. The Huntley-Boyer Road intersection will be reconstructed and remain a signalized intersection in accordance with current roadway standards.

There also is an existing three-leg intersection at Randall Road and Longmeadow Parkway, which is currently an unsignalized T-intersection. There were eighteen crashes at the intersection during the 5-year period between 2008 and 2012. The predominant type of crash is rear-end, with 7 reported during the 5-year period. The remaining crash types are sideswipe-same direction (3), left-turning (3), animal (3) and fixed object (2). Three of the crashes resulted in an injury. This intersection will be reconstructed as a four-leg signalized intersection in accordance with current roadway standards.

There is no existing intersection along the proposed Longmeadow Parkway alignment which intersects with Illinois Route 31, Illinois Route 25, or Illinois Route 62. Therefore, no crash data was analyzed at these locations.

SECTION II: AFFECTED ENVIRONMENT TABLE

	Reso	ource/C	ondition P	ndition Present?		
Environmental Resources/Conditions	Imp Iden in th	acts tified e EIS	Impacts Identified During the Reevaluation			
	Yes	No	Yes	No		
I. Social/Economic						
1. Community Cohesion		Х		Х		
2. Environmental Justice and Title VI		Х		Х		
3. Public Facilities and Services	Х		Х			
4. Changes in Travel Patterns and Access	Х		Х			
5. Relocations (Business and Residential)	Х		Х			
6. Economic Impacts	Х		Х			
7. Land Use	Х		Х			
8. Growth and Economic Development	Х		Х			
9. Pedestrian and Bicycle Facilities	Х		Х			
II. Agricultural 1. Farms and Farmland Conversion 2. Prime and Important Soils	X X		X X			
3. Severed/Landlocked Parcels		Х		Х		
4. Adverse Travel		Х		Х		
III. Cultural Resources (Historic Properties)						
1. Archaeological Sites		Х		Х		
2. Historic Bridges		Х		Х		
3. Historic Districts		Х		Х		
4. Historic Buildings	Х			Х		

		Res	ource/0	Condition	ondition Present?		
	Environmental Resources/Conditions	Impa Ident in the	acts ified e EIS	Impacts Identified Duri the Reevaluation			
		Yes	No	Yes	No		
	IV. Air Quality		1				
1.	Microscale Analysis		Х		Х		
	a. Does project add through lanes or	V		Х			
	auxiliary turning lanes?	X					
	b. Has COSIM 4.0 been used?	NA	NA	NA	NA		
2.	Air Quality Conformity	Х			Х		
	 a. Is project in a non-attainment or maintenance area? 	х		Х			
3.	Is project located in a PM 2.5 or PM 10			Х			
_	non-attainment or maintenance area	Х					
4.	Construction-Related Particulate Matter	NA	NA		Х		
5.	Mobile Source Air Toxics	NA	NA		Х		
	V. Noise						
1	Is this a Type I project?	X		X			
	a Noise impacts	X		X			
	b Does abatement meet feasibility and	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Х	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Х		
	reasonableness criteria?		~				
2.	Is this a Type III project?		Х		Х		
	VI. Natural Resources						
1.	Upland Plant Communities	Х		Х			
	a. Does the project impact wooded areas			X			
	(Trees)?	Х					
	b. Does the project impact Prairie?		Х		Х		
	c. Does the project occur within an Illinois Department of Agriculture quarantine area for an invasive species?	NA	NA	Х			
2.	Wildlife Resources	Х		Х			
	a. Does the project area contain Wildlife Habitat?	Х		Х			
	 b. Does the project area contain breeding habitat for neotropical migrant species of birds? 		Х		Х		
	c. Does the project area contain nesting Bald eagles?		Х	Х			
3.	Threatened and Endangered Species	Х		Х			
	a. Does habitat exist for Federally-listed species in the project area?		Х	Х			
	b. Did the EcoCAT response from IDNR indicate the presence of State-Listed Species in the project area?	Х		Х			

		Reso	urce/C	ondition F	Present?
	Environmental Resources/Conditions	Impacts Identified in the EIS		Impacts Identified During the Reevaluation	
		Yes	No	Yes	No
	VII. Water Quality/Resources/Aquatic Habi	ts_			
				1	
1.	Does the project involve a waterbody?	Х		Х	
2.	Does the project affect the physical features of a stream?		Х	Х	
3.	Does the project affect the fish and/or mussels within the stream?		Х	Х	
4.	Does the project affect either the narrative or numeric water quality standards?		Х		Х
5.	Does the project occur within an area listed as a navigable stream, nationwide river inventory, ADID stream, or have a rating under the Biological Stream rating system?	х		X	
6.	Do the project impacts require mitigation?	Х		Х	
	VIII. Groundwater Resources			11	
1.	Is groundwater the primary source of potable water in the area?		Х		Х
2.	Does the project occur within an area of karst topography?		Х		Х
3.	Does the project occur within a watershed that has been designated by the IEPA as vital for a particularly sensitive ecological system?		х		Х
4.	Does the project impact a Wellhead Protection Area?		Х		Х
5.	Does the project occur within an area where potable water supply wells are present?		Х		Х
6.	Does the project contribute to degradation of the area's groundwater quality?		Х		Х
7.	Does the project occur within an area designated as a special resources groundwater?		Х		Х

		Resc	ource/C	ondition F	dition Present?		
	Environmental Resources/Conditions	Imp Identi the	Impacts Identified in the EIS		pacts entified ing the valuation		
		Yes	No	Yes	No		
	IX. Floodplains						
1.	Does the project occur within a 100-year floodplain?	Х		Х			
2.	Does the project occur within the Regulated Floodway?	Х		Х			
3.	Is a Floodplain Finding required?		Х		Х		
	X. Wetlands						
1.	Does the project impact Wetlands?		Х	Х			
2.	Do the wetlands have an FQI of 20 or greater?		Х		Х		
3.	Are the wetlands listed as an ADID Site?	NA	NA	Х			
4.	Wetlands Finding	Х		Х			
	XI. Special Waste						
1.	Did project pass Level I screening?	NA	NA		Х		
2.	Did project pass Level II screening?	NA	NA		Х		
3.	Was a Preliminary Environmental Site Assessment (PESA) required?	Х		Х			
	a. Is All Appropriate Inquiry (AAI) required?	NA	NA		Х		
	b. Were REC(s) identified in the PESA?	NA	NA	Х			
4.	Was a Preliminary Site Investigation (PSI) required?	NA	NA	Х			
	XII. Special Lands						
1.	Section 4(f)	Х		Х			
	a. <i>DeMinimis</i> , Programmatic, or Individual	X		Х			
2	Section 6(f)	^	X		X		
3	Open Space Lands Acquisition and				X		
0.	Development (OSLAD) Act Lands		Х		~		
4.	INAI Sites		Х		Х		
5.	Nature Preserves		Х		Х		
6.	Land & Water Reserves		Х		Х		

		Resource/Condition Present?					
	Environmental Resources/Conditions	Impacts Identified in the EIS		Impacts Identified During the Reevaluation			
		Yes	N o	Yes	No		
	XIV. Environmental Commitments Permit	s/Certific	ations R	equired			
1.	Does the project require Section 404 Permit(s)?	х		Х			
2.	Will an individual Water Quality Certification from IEPA be required?	Х		Х			
3.	Will a Coast Guard Bridge Permit be required?	X			Х		
	XV. Public Involvement	Х		Х			
	XVI. Agency Coordination	Х		Х			

SECTION III: ALTERNATIVES

In this reevaluation, the two alternatives under consideration are the No-Build and the Build alternative, which was selected in the ROD. The ROD dismissed the No-Build alternative because it would not meet the purpose and need for the project; however, it is included in this re-evaluation for comparison with the Build Alternative. The original EIS evaluated several alignments for the Bolz Road Corridor (Longmeadow Parkway), and the ROD selected the alternative with the least environmental impacts. The selected alternative from the ROD is the subject of this re-evaluation to determine if there are any new significant impacts. If new significant impacts are identified, then a Supplemental EIS is required.

The No-Build alternative is the current roads in their existing configuration with no improvements other than routine maintenance and minor rehabilitation. It is the future base condition against which the effects of the Build alternative will be measured. Selection of the No-Build alternative will result in longer travel times and increased congestion due to the lack of major river crossings within the 5.1 mile stretch between IL Route 72 and IL Route 62. This selection will be detrimental to the roadway network support of current and future land use development within the region. Within this re-evaluation, the No-Build alternative still does not meet the purpose and need for the project.

SECTION IV: IMPACTS, DOCUMENTATION AND MITIGATION

Part I. Socio-economic

In the EIS, there were no impacts under Community Cohesion and Title VI and Environmental Justice and there are no new impacts as a result of this reevaluation. Effects to Public Facilities and Services, Changes in Travel Patterns and Access, Economic Impacts, Land Use and Growth and Economic Development, and Pedestrian and Bicycle Facilities were described in the EIS and summarized in this reevaluation. The EIS identified 11 single family residential displacements necessary to build the proposed bridge and roadway improvements. This impact has been reduced to 3 single family residential structures being displaced.

1. Community Cohesion

Description

The proposed bridge crossing would connect neighborhoods on both the east and west side of the Fox River reducing congestion. Dundee School District #300 will benefit from improved bus access within its service area as a result of the bridge and roadway improvement as District #300 serves both sides of the Fox River. There have been no changes in community cohesion impacts from the EIS.

2. Title VI and Environmental Justice

Title VI

Groups of ethnic, racial or religious minorities or elderly or disabled people are not present within the project area. No groups of individuals have been or will be excluded from participation in public involvement activities, denied the benefit of the project or subjected to discrimination in any way on the basis of race, color, age, national origin, disability, or religion.

Environmental Justice

Upon reviewing and evaluating available data regarding the census tracts within the project limits, there are no disproportionate impacts on the low-income and minority population. At the time of the EIS, the project limits were included in one census tract 8501.00. The project limits did not change; however, the original census tract has been since subdivided into three census tracts, 8501.01, 8501.05, and 8501.06. The data for the 2010 census from each of these census tracts was reviewed and there are no disproportionate impacts on the low income or minority population. The census tracts within the project limits had a lower level of minority and low income population than Kane County as a whole. This reevaluation found that this determination from the EIS is still valid.

3. Public Facilities and Services

Description

The Algonquin and Carpentersville Police and Fire Departments serve both the west and east sides of the Fox River and would benefit from improved response times as a result of implementing the bridge and roadway improvements. There also are many park and recreational facilities located on both the east and west sides of the Fox River. Providing an alternative bridge crossing between the two existing crossings in Algonquin and Carpentersville will improve access for many residents in both of these communities, adjacent communities, and unincorporated Kane County. There have been no changes in impacts to public facilities and services from the EIS.

4. Changes in Travel Pattern and Access

Description

The primary future growth areas of both Algonquin and Carpentersville are west of the Fox River. As congestion increases on the existing bridges in the downtown areas of these communities, automobile and pedestrian movements will be impeded, affecting the viability of these commercial areas. The proposed improvements will provide a major transportation link from residences to employment, shopping and recreational opportunities. There have been no changes in impacts to travel patterns and access from the EIS.

5. Relocations (Business and Residential)

Estimation and Description

The EIS had 11 single family residential displacements to accommodate the proposed bridge and roadway improvements. This impact has been reduced to 3 single family residential structures being displaced. One residence in the area of Karen Drive was purchased at least five years ago and was demolished. One residence is in negotiation along Route 31. One residence at the northwest corner of Randall/Longmeadow was purchased and has been demolished.

The number of relocations have been reduced from eleven (EIS) to three (reevaluation).

6. Economic Impacts

Description

The proposed bridge and roadway improvements will help focus new employment opportunities within Kane County and the local municipalities. Businesses that are currently located in this developed corridor also will benefit from the improved access to major transportation routes, business districts, customer bases, and public services. There have been no changes in economic impacts from the EIS.

7. Land Use

Description

The land use along the Longmeadow Corridor is predominantly residential with forest preserve and open lands also present. There have been no changes in land use from the EIS.

8. Growth and Economic Development

Description

Improved accessibility across the Fox River will enhance the planned development potential of the undeveloped parcels along the corridor as traffic is projected to increase. Growth in these areas is consistent with the policies of local governmental units as reflected in Comprehensive Plans and Zoning Ordinances. There have been no changes in impacts to growth and economic development from the EIS.

9. Pedestrian and Bicycle Facilities

Project will cause disruption or permanent changes in pedestrian or bicycle acess

Project will not cause disruption or permanent changes in pedestrian or bicycle acess

Description

This project will include the construction of a new bike path and will make connections to existing bike paths, which are considered positive changes (i.e. improvements) for the Forest Preserve District of Kane County (FPDKC). There will not be any permanent interruption of the existing bicycle or pedestrian paths. The proposed improvements will provide permanent changes in pedestrian or bicycle access, as a multi-use path will be constructed along the entire Longmeadow Parkway corridor. There could be some short term closures or detours at the existing bicycle path during construction. There have been no changes in impacts to pedestrian and bicycle facilities from the EIS.

Part II. Agricultural

The project will have impacts to Farms and Farmland Conversion and Prime and Important Soils; however, there have been no changes in impacts from the EIS.

1. Farms and Farmland Conversion

There are 28.5 acres of land to be acquired from farm parcels. There are no farm houses or buildings being displaced. There is no change in impacts from the EIS.

2. Prime and Important Soils

According to the EIS and reevaluation, there are 28.5 acres of prime soils within the Longmeadow Parkway corridor and there are no impacts to statewide important soils. There is no change in impacts from the EIS.

3. <u>Severed/Landlocked Parcels</u>

Identify

There are no severed or landlocked parcels resulting from the Longmeadow Parkway project. There are no changes in impacts from the EIS.

4. Adverse Travel

According to the EIS and reevaluation, there is no adverse travel resulting from the Longmeadow Parkway project. There are no changes in impacts from the EIS.

Part III. Cultural Resources

There are no impacts under Archeological Sites, Historic Bridges and Historic Districts in the EIS or reevaluation. There was an impact under Historic Buildings resulting from taking approximately 0.23 acres of frontage from the Perry-Lathrop property located along the east side of Illinois Route 31 at 19N045. This property was determined eligible for inclusion on the National Register of Historic Places. An approximately 40 feet wide strip of land will be taken in front of the Perry Lathrop House. The only impact will be visual and a landscape plan will be developed and submitted for State Historic Preservation Office (SHPO) approval for the area adjacent to the Perry Lathrop property prior to construction. The parcel to the south and east of the Perry Lathrop property, known as the Melva property, will be acquired by the County and transferred to the FPDKC. The Melva property will be transferred to the FPDKC and will be maintained in perpetuity as greenspace upon request by FPDKC. The Intergovernmental Agreement (IGA) between Kane County Division of Transportation (KDOT) and the FPDKC is included in Appendix A, Page A-7.

□ No Historic Properties Affected - See letter from SHPO

✓ Historic Properties Affected - See below

IDOT coordinated with the Illinois State Historic Preservation Officer (SHPO) and the SHPO concurred with a "Conditional No Adverse Effect" finding (Appendix A, Page A-2) for the

Perry Lathrop House provided that SHPO reviews and approves the landscape plan for the Perry Lathrop House (See Appendix A, Page A-1).

On April 8, 2016, IDOT coordinated with the SHPO in regards to the acreage around the Perry-Lathrop House (known as the Melva property) and the SHPO concurred with a "Conditional No Adverse Effect" finding (Appendix A, Page A-4) for this property provided that SHPO reviews and approves the landscape plan (See Appendix A, Page A-3).

1. Archaeological Properties

Project will not affect Archeological Properties

Project will affect Archeological Properties

2. <u>Historic Bridges</u>

Project will not affect a Historic District

Project will affect a Historic District

3. <u>Historic District</u>

Project will not affect a Historic District

Project will affect a Historic District

4. Historic Buildings

Project will not affect any Historic Buildings

Project will affect Historic Buildings

Impacts

A 40 foot strip of right-of-way will be acquired from the Perry-Lathrop property. A landscaping plan will be developed and submitted to the Illinois SHPO for review and concurrence and an adjacent property, the Melva property, will be preserved in perpetuity as greenspace upon request of the FPDKC.

Coordination

A landscape plan will be developed and submitted for the area adjacent to the Perry-Lathrop house that fronts the proposed Longmeadow Parkway, and this plan must be reviewed and approved in writing by the SHPO prior to construction.

No new historic properties have been identified after the EIS was issued. There is a "no adverse effect" to historic properties.

Part IV. Air Quality

In the EIS, there were no impacts under Air Quality.

Since the EIS was prepared, there have been new regulatory requirements established for PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas. Additionally, Construction-Related Particulate Matter, and Mobile Source Air Toxics (MSAT) are analyzed during the NEPA process. The air quality analysis has been updated to address these new requirements. As a result of the analysis, there are no new impacts to air quality.

1. <u>CO Microscale Analysis</u>

Project Type:

This project does not meet any of the below listed project types.

- Project does not add Through Lanes or Auxillary Turning Lanes
- Project does not involve any sensitive receptors and is not suitable for using COSIM 4.0
- Project is subject to COSIM Pre-screen
- Project is subject COSIM screening analysis

In accordance with the IDOT-Illinois Environmental Protection Agency (IEPA) "Agreement on Microscale Air Quality Assessments for IDOT Sponsored Transportation Projects," projects are exempt from project-level carbon monoxide air quality analysis if the highest design-year approach-volume on the busiest leg of the intersection is less than 5,000 vehicles per hour (vph) or 62,500 ADT. This project does not have traffic that would exceed this threshold, and therefore a CO analysis is not required.

2. Air Quality Conformity

Project Type:

- Project is outside of Nonattainment or Maintenance Area
- Exempt Project in Nonattainment or Maintenance Area
- Project is within a portion of a Nonattainment or Maintenance Area where CMAP is the MPO
- Project is within a Nonattainment or Maintenance area served by an MPO other than CMAP
- Project is within a Nonattainment or Maintenance area not served by an MPO
- Regionally Significant Non-Federal project within a Nonattainment or Maintenance Area.

This project is included in the FY 2014-2019 Transportation Improvement Program (TIP) endorsed by the Metropolitan Planning Organization Policy Committee of the Chicago Metropolitan Agency for Planning (CMAP) for the region in which the project is located. Projects in the TIP are considered to be consistent with the regional transportation plan endorsed by CMAP. The project is within the fiscally constrained portion of the plan.

On June 5, 2015, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) determined that the GO TO 2040 Comprehensive Regional Plan and

the Transportation Improvement Plan conforms to the State Implementation Plan (SIP) and the transportation-related requirements of the 1990 Clean Air Act Amendments. These findings were in accordance with 40 CFR Part 93, "Determining Conformity of Federal Actions to State or Federal Implementation Plans."

The project's design concept and scope are consistent with the project information used for the TIP conformity analysis. Therefore, this project conforms to the existing State Implementation Plan and the transportation-related requirements of the 1990 Clean Air Act Amendments. The TIP number for this project is 09-96-0017.

3. <u>PM_{2.5} and PM_{10.0} Nonattainment and Maintenance Areas</u>

Project-Type

Exempt Project

Nonexempt project that is not an Air Quality Concern

Nonexempt project that is an Air Quality Concern

Pursuant to 40 CFR 93.123(b)(1) this is not a project of air quality concern and therefore a quantitative hot spot analysis is not required. The highest projected ADT along Longmeadow Parkway is 33,300 with 4% trucks, for a total of 1,332 diesel trucks. The regulations provide examples of projects that are of air quality concern, such as a project that adds 10,000 new diesel trucks; however, this project adds substantially less than 10,000 trucks. Also, the regulations describe projects affecting intersections with a Level of Service (LOS) of D, E, or F as projects of air quality concern. This project will not affect any intersection with a LOS of D, E, or F with additional diesel trucks. Due to the fact that the ADT is 33,300 which is well below the 125,000 ADT threshold and truck traffic is less than 8%, this project will not cause or contribute to any new localized PM_{2.5} violations or increase the frequency or severity of any PM_{2.5} violations. United States Environmental Protection Agency (USEPA) has determined that such projects meet the Clean Air Act's requirements without any further Hot-Spot analysis. The LOS for intersections is shown in Table 1.

	AM Intersection Level of Service (2040)						
	Boyer Road	Randall Road	Sleepy Hollow Road	Illinois Route 31 Connector	Bolz Road Connector	Illinois Route 25	Illinois Route 62
Longmeadow Parkway	С	С	С	В	С	С	В

Table 1Level of Service for Intersections

		PM Intersection Level of Service (2040)						
	Boyer Road	Randall Road	Sleepy Hollow Road	Illinois Route 31 Connector	Bolz Road Connector	Illinois Route 25	Illinois Route 62	
Longmeadow Parkway	С	D	С	В	С	С	В	

4. Construction-Related Particulate-Matter

Demolition and construction activities can result in short-term increases in fugitive dust and equipment-related particulate emissions in and around the project area. (Equipmentrelated particulate emissions can be minimized if the equipment is well maintained.) The potential air quality impacts will be short-term, occurring only while demolition and construction work is in progress and local conditions are appropriate. The potential for fugitive dust emissions typically is associated with building demolition, ground clearing, site preparation, grading, stockpiling of materials, on-site movement of equipment, and transportation of materials. The potential is greatest during dry periods, periods of intense construction activity, and during high wind conditions. IDOT's Standard Specifications for Road and Bridge Construction include provisions on dust control. Under these provisions, dust and airborne dirt generated by construction activities will be controlled through dust control procedures or a specific dust control plan, when warranted. The contractor and IDOT will meet to review the nature and extent of dustgenerating activities and will cooperatively develop specific types of control techniques appropriate to the specific situation. Techniques that may warrant consideration include measures such as minimizing track-out of soil onto nearby publicly-traveled roads, reducing speed on unpaved roads, covering haul vehicles, and applying chemical dust suppressants or water to exposed surfaces, particularly those on which construction vehicles travel. With the application of appropriate measures to limit dust emissions during construction, this project will not cause any significant, short-term particulate matter air quality impacts.

5. Mobile Source Air Toxics (MSAT)

Project-Type:

- Project is exempt
- Project has no meaningful potential MSAT effects
- Project has low meaning potential MSAT effects and is one of the following types below:
 - □ A minor widening project
 - A new interchange connecting an existing roadway with a new roadway
 - A new interchange connecting new roadways

- Minor improvements or expansions to intermodal centers or other projects that affect truck traffic
- Project has high potential MSAT effects

This project has a low potential for MSAT effects because design year traffic is projected to be less than 140,000 to 150,000 annual average daily traffic AADT. As a project with low potential for MSAT effects, a qualitative analysis was completed.

For the build alternative, the amount of MSAT emitted would be proportional to the vehicle miles traveled (VMT). Because the VMT estimated for the No Build Alternative is higher than for the Build Alternative, higher levels of regional MSAT are not expected from the Build Alternative compared to the No Build Alternative. Also, emissions will likely be lower than present levels in the design year as a result of USEPA's national control programs that are projected to reduce MSAT emissions by 72 percent from 1999 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the USEPA-projected reductions is so great, even after accounting for VMT growth, emissions in the study area are likely to be lower in the future in virtually all locations. There may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections that would be built over and adjacent to the Fox River under the Build Alternative Longmeadow Parkway. However, even if these increases do occur, they too will be substantially reduced in the future due to implementation of USEPA's vehicle and fuel regulations.

In summary, under the Build Alternative in the design year, it is expected there would be reduced MSAT emissions in the immediate area of the project, relative to the No Build Alternative, due to the reduced VMT associated with more direct routing, and due to USEPA's MSAT reduction programs.

INCOMPLETE OR UNAVAILABLE INFORMATION FOR PROJECT-SPECIFIC MSAT HEALTH IMPACTS ANALYSIS

In FHWA's view, information is incomplete or unavailable to credibly predict the projectspecific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

USEPA Role

The USEPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. It is the lead authority for administering the Clean Air Act and its amendments and has specific statutory obligations with respect to hazardous air pollutants and MSAT. USEPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. It maintains the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human

health effects." IRIS can be accessed through the USEPA website. Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Role of Other Organizations

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's "Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents." Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations or in the future as vehicle emissions substantially decrease. See research reports available through the HEI website.

Problems with Modeling Methodologies

The methodologies for forecasting health impacts include emissions modeling, dispersion modeling, exposure modeling, and then final determination of health impacts, each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology, which affects emissions rates over that time frame, because such information is unavailable.

It is particularly difficult to reliably forecast MSAT exposure near roadways, and to determine the portion of time that people are actually exposed at a specific location. It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposures near roadways; to determine the portion of time that people are actually exposed at a specific location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

MSAT Toxicity Estimates

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI. As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. USEPA and the HEI have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

Level of Risk

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by USEPA, as provided by the Clean Air Act, to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards (e.g., benzene

emissions from refineries). The decision framework is a two-step process. The first step requires USEPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the US Court of Appeals for the District of Columbia Circuit upheld USEPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than safe or acceptable.

Conclusions

Because of the limitations in the methodologies for forecasting the health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits (e.g., reducing traffic congestion, crash rates, and fatalities plus improved access for emergency response) that are better suited for quantitative analysis.

Part V. Noise

In the EIS, noise impacts were evaluated using the STAMINA noise model software. The noise analysis for the Longmeadow Parkway has been reevaluated based on the current IDOT Noise Policy and the current FHWA Traffic Noise Model (TNM) model software was used. Since the original noise study was completed, a few scattered residences have been constructed near the proposed roadway and a new subdivision, located along the north side of the proposed Longmeadow Parkway and west of Illinois Route 25, has been completed.

The noise analysis was conducted for two sections: Section A-1 and Section A2-B1 to Section D. The proposed action for Section A-1, located between Huntley Road from approximately 2,300 feet west of Boyer Road to just west of Randall Road, is a new alignment from the eastern extent of the east/west leg of Huntley Road to just short of the current Longmeadow Parkway/Randall Road three-way intersection. The proposed actions for Section A2-B1 to Section D, located between Randall Road and Illinois Route 62 (Algonquin Road), are additional lanes between Randall Road and White Chapel Lane, a new alignment east from the Longmeadow Parkway/White Chapel Lane intersection to Algonquin Road, and a new alignment north of existing Bolz Road. Appendix B contains both the A-1 and the A2-B1 to Section D Noise Study Summary Memoranda.

Type I Project

Type III Project

An analysis of noise abatement measures (noise barriers) was conducted in conformance with FHWA requirements contained in Title 23 *Code of Federal Regulations* Part 772 for each of the impacted receptors. In order for a noise abatement measure to be constructed, it must meet both the feasibility and reasonableness criteria, described below.

Feasibility

The feasibility evaluation is a combination of acoustical and engineering factors considered in the evaluation of a noise abatement measure. The acoustical portion of the IDOT policy, as required by FHWA regulations, considers noise abatement to be feasible if it achieves at least a 5 dB(A) traffic noise reduction at an impacted receptor. Factors including, but not limited to, safety, barrier height, topography, drainage, utilities, maintenance, and access issues are also considered.

Reasonableness

As per FHWA regulations, a noise abatement measure is determined to be reasonable when all three of the following reasonableness evaluation factors are met:

- cost effectiveness of the highway traffic noise abatement measure;
- achievement of IDOT's noise reduction design goal; and,
- consideration of the viewpoints of the benefited receptors (property owners and residents), if all other criterion are achieved.

A noise abatement measure is considered cost-effective to construct if the noise wall construction cost per benefited receptor is less than the allowable cost per benefited receptor. A benefited receptor is any receptor that is afforded at least a 5 dB(A) traffic noise reduction from the proposed noise abatement measure. The FHWA regulations allow each State Highway Authority to establish cost criteria for determining cost effectiveness.

IDOT policy provides that the actual cost per benefited receptor shall be based on a noise wall cost of \$25 per square foot, which includes engineering, materials, and construction. The base value allowable cost is \$24,000 per benefited receptor, which can be increased based on three factors as summarized below:

- the absolute noise level of the benefited receptors in the design year build scenario before noise abatement;
- the incremental increase in noise level between the existing noise level at the benefited receptor and the predicted build noise level before noise abatement; and
- the date of development compared to the construction date of the highway. These factors are considered for all benefited receptors.

Predicted Build Noise Level Before Noise Abatement	Dollars Added to Base Value Cost per Benefited Receptor
Less than 70 dB(A)	\$0
70 to 74 dB(A)	\$1,000
75 to 79 dB(A)	\$2,000
80 dB(A) or greater	\$4,000

Table 2 Absolute Noise Level Consideration

Source: IDOT Highway Traffic Noise Assessment Manua

Dollars Added to Base Value Cost per Benefited Receptor					
\$O					
\$1,000					
\$2,000					
\$4,000					

Table 3 Increase in Noise Level Consideration

Source: IDOT Highway Traffic Noise Assessment Manual

Table 4
New Alignment / Construction Date Consideration

Project is on new alignment OR the receptor existed prior to the original construction of the highway	Dollars Added to Base Value Cost per Benefited Receptor
No for both	\$0
Yes for either	\$5,000

Note: No single optional reasonableness factor shall be used to determine that a noise abatement measure is unreasonable.

Source: IDOT Highway Traffic Noise Assessment Manual

The IDOT noise reduction design goal is to achieve an 8 dB(A) traffic noise reduction at a minimum of one benefited receptor. If a noise abatement measure is feasible, achieves the cost-effective criterion, and achieves the IDOT noise reduction design goal, then the viewpoints of benefited receptors are solicited on the construction of the noise wall.

The third component of reasonableness is obtaining the viewpoints of those who would be benefitted by a feasible and cost-effective noise barrier that meets the IDOT noise reduction design goal. The viewpoints solicitation process will be completed with the property owners and tenants of the receptors that would benefit from the proposed walls. The received votes will be tallied by noise wall per IDOT policy. If greater than fifty percent of a wall's votes are in support of wall construction, the wall will be recommended for construction and will likely be included in final design plans for the project. Conversely, walls that do not receive fifty percent or more votes in favor of the wall will not be recommended for construction as part of the project.

Impacts

In the EIS, twelve sites were selected as receptors for analysis along the entire preferred Longmeadow alignment. Future traffic noise levels were predicted for the design year 2020 for both the Build Alternative and No-Build Alternative. For the No-Build Alternative, noise levels typically increased by 1 dB(A) or less within the project corridor. Traffic noise levels under the Build Alternative ranged from 44 dB(A) to 69 dB(A). The increase from Existing to Build noise levels ranged from 2 dB(A) to 13 dB(A) with one receptor, R4, having a 24 dB(A) increase from the Existing to Build condition. Four receptors were determined to have a noise impact, R3, R4, R9 and R12.

Section A-1

For the reevaluation noise analysis in <u>Section A-1</u>, four receptors (R1 through R4) have been selected to represent the study area in Section A-1. Existing (2015) and future (2040) Build and No-Build traffic noise levels were predicted for the receptor sites utilizing TNM. The results are shown in Table 5.

Receptor Number	Land Use Category / NAC in dB(A)	Existing 2015 Noise Level, dB(A)	No-Build 2040 Noise Level, dB(A)	Build 2040 Noise Level, dB(A)	Build Increase Over Existing
R1	B / 67	57	58	60	3
R2	B / 67	61	62	64	3
R3	B / 67	59	60	63	4
R4	B / 67	73	74	<mark>77</mark>	4

Table 5 NOISE MODELING RESULTS SECTION A-1

Boldface and highlighted indicates whether the noise levels approach, meet or exceed the Noise Abatement Criteria (NAC) in the Build scenario.

The Existing 2015 noise levels range from 57 dB(A) at R1 to 73 dB(A) at R4. The projected No-Build 2040 traffic noise levels range from 58 dB(A) at R1 to 74 dB(A) at R4. Receptor noise levels increased 1 dB(A) from the Existing scenario to the No-Build scenario. Any increase in traffic noise levels are due to an increase in traffic volumes.

The 2040 traffic noise levels for the Build scenario as predicted by TNM range from 60 dB(A) at R1 to 77 dB(A) at R4. Traffic noise levels increased 3 dB(A) or 4 dB(A) from the Existing scenario to the Build scenario due to the increase in the traffic volumes and the proposed geometry. One of the four receptor locations exceeded the FHWA NAC criteria. Based on the 2040 traffic noise levels, noise abatement was evaluated for the impacted receptor.

Section A2-B1 to Section D

For the reevaluation noise analysis for <u>Section A2-B1 to Section D</u>, thirty receptors have been selected to represent the study area in Section A2-B1 to Section D. The results are shown in Table 6.

Receptor / CNE No.	Existing Noise Level, dB(A)	No-Build 2040 Noise Level, dB(A)	No-Toll Build 2040 Noise Level, dB(A)	Change from Existing to Build, dB(A)				
R5	73	74	<mark>75</mark>	2				
R6	46	48	59	13				
R7	50	51	61	11				
R8	49	51	63	14				
R9	51	53	64	13				
R10	52	53	56	4				
R11	60	61	63	3				
R12	59	60	64	5				
R13	48	50	62	14				
R14	46	48	60	14				
R15	48	50	62	14				
R16	45*	45*	59	14				
R17	60	61	N/A	N/A				
R18	45*	45*	49	4				
R19	51	52	64	13				
R20	49	50	57	8				
R21	44	45	55	11				
R22	61	61	62	1				
R23	47*	47*	54	7				
R24	61	62	62	1				
R25	67	68	<mark>69</mark>	2				
R26	71	72	<mark>73</mark>	2				
R26A	70	71	<mark>72</mark>	2				
R27	60	61	64	4				
R28	52	53	58	6				
R29	44*	44*	53	9				
R30	55	56	60	5				
R31	60	62	62	2				
R32	62	63	65	3				
R33	62	63	64	2				

Table 6 NOISE MODELING RESULTS SECTION A2-B1 TO SECTION D

Bold, highlighted data represent Build Condition noise levels that approach, meet, or exceed the appropriate NAC.

* - Noise levels taken from monitoring results as receptors are greater than 500 feet from modeled roadways and therefore beyond TNM's effective range.

Receptor 17 is directly in the path of Longmeadow Parkway new alignment and therefore not modeled in the Build Condition.

The Existing 2015 noise levels range from 44 dB(A) at R21 and R29 to 73 dB(A) at R5. The projected No-Build 2040 traffic noise levels range from 44 dB(A) at R29 to 74 dB(A) at R5. Receptor noise levels remained the same or increased by either 1 dB(A) or 2 dB(A) from the Existing scenario to the No-Build scenario. Any increase in traffic noise levels are due to an increase in traffic volumes.

The 2040 traffic noise levels for the Build scenario, as predicted by TNM range from 49

dB(A) at R18 to 75 dB(A) at R5. Traffic noise levels increased from 1 dB(A) to 14 dB(A) from the Existing scenario to the Build scenario due to the increase in the traffic volumes and the proposed geometry. Four of the 30 receptor locations exceed the NAC and are considered traffic noise impacts. These four receptor locations also approach or exceed the NAC in the existing condition. None of the receptors are considered an impact due to a substantial increase (greater than 14 dB(A)) in noise. Traffic noise abatement measures were considered for impacted receptors that approach, meet, or exceed the appropriate FHWA NAC.

Abatement Evaluation

In the EIS, four out of the twelve sites had a noise impact and were evaluated for noise abatement. Three of the four barriers could not substantially reduce noise levels, and therefore were not considered feasible. The fourth barrier could substantially reduce noise, but this wall was not economically reasonable based on the cost of the wall per benefitted receptor. Therefore, no abatement was proposed in the EIS noise analysis, and this was documented in the ROD.

Section A-1

For the reevaluation in Section A-1, TNM was used to perform the noise wall feasibility and reasonableness check for the one impacted receptor (R4). The noise wall met IDOT's feasibility criterion. The noise barrier also achieved IDOT's noise reduction design goal of at least an 8 dB(A) traffic noise reduction at one or more benefited receptor locations. The wall was then checked for economic reasonableness. Based on the evaluation, the noise wall would not be economically reasonable, as the actual cost per benefited receptor exceeds the adjusted allowable cost per benefited receptor, see Table 7 and 8 below. Therefore, noise abatement will not be implemented as part of this project within Section A-1.

Section A2-B1 to Section D

For Section A2-B1 to Section D, TNM was used to perform the noise wall feasibility and reasonableness check for the four impacted receptors: R5, R25, R26, and R26A. This includes two variants of a shared noise wall in the area of R26 and R26A. Noise Wall B2A, a shared noise wall spanning the length of adjacent CNEs R26 and R26A, was evaluated separately from Noise Wall B2 in the event that the church (R26A) would prefer to maintain visibility over noise abatement. When determining if an abatement measure is feasible and reasonable, the noise reductions achieved, number of residences benefited, total cost, and total cost per residence benefited are considered. All noise walls were modeled along the proposed right-of-way.

All four of the noise walls could feasibly be built and achieve at least a 5 dB(A) reduction at an impacted receptor. Three (B1/R25, B2/R26, and B2A/R26 & R26A) of the four noise barrier considered feasible would be considered acoustically reasonable, as they achieve the IDOT noise reduction design goal of at least an 8 dB(A) traffic noise reduction at one or more benefited receptor locations. A noise wall at R5 would not achieve the noise reduction design goal, as the gap in the wall (needed to maintain driveway access) limited the effectiveness of the noise wall.

The three feasible and noise reduction design goal-achieving noise walls, at CNEs R25, R26, and R26A, were then evaluated for cost-effectiveness. Based on the adjusted cost evaluation, none of noise reduction design goal-achieving noise walls (Noise Walls B1, B2 and B2A) would be economically reasonable, as the actual cost per benefited receptor

exceeds the adjusted allowable cost per benefited receptor. Therefore, noise abatement will not be implemented as part of this project within Section A2-B1 to Section D.

Table 7					
ADJUSTED ALLOWABLE COST PER BENEFITED RECEPTOR SUMMARY					

Barrier / CNE	Benefited Receptors	Adjustment Factor ¹	Adjusted Allowable Cost per Benefited Receptors
B1 / R4	1	\$7,000 ³	\$31,000
B0 / R5		Does not meet IDOT Noise Reduct	ion Design Goal
B1 / R25	5	\$0	\$24,000
B2 / R26	4	\$0 to \$1,000 ²	\$24,250
B2A / R26 & R26A	5	\$ 0 to \$1,000 ²	\$24,400

¹ The Adjustment factor is analyzed individually for each benefited receptor; therefore, a range may be presented for the Adjustment Factor.

² Include \$1,000 for the Absolute Noise Level Consideration.

³ Includes \$2,000 for the Absolute Noise Level Consideration and \$5,000 for New Alignment Consideration.

Table 8NOISE WALL COST REASONABLENESS EVALUATION

Barrier / CNE	Benefited Receptors ¹	Actual Cost per Total Noise Benefited Wall Cost ² Receptor		Adjusted Allowable Cost per Benefited Receptor		
B1/R4	1	\$57,250	\$57,250	\$31,000		
B0 / R5	Does not meet IDOT Noise Reduction Design Goal					
B1 / R25	5	\$158,850	\$31,770	\$24,000		
B2 / R26	4	\$263,450 ³	\$65,863	\$24,250		
B2A / R26 & R26A	5	\$300,250 ³	\$60,050	\$24,400		

¹ Includes the anticipated outdoor use areas anticipated to receive at least a 5 dB(A) reduction

² Based on the IDOT policy value of \$25 per square foot

³ Includes estimated cost of utility relocation required to construct wall (\$197,850)

Construction Noise

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

Part VI. Natural Resources

The EIS quantified an impact of forested areas of 2.7 acres adjacent to the Fox River, but did not quantify a number of trees. As part of the reevaluation, it was determined that the total number of trees impacted by this project is about 5,765. The acreage associated with the tree impacts adjacent to the Fox River is approximately 2.4 acres with a total tree acreage impact throughout the corridor of 28.7 acres. This includes all land covered by trees within the corridor, i.e. floodplain, upland and wetland forested areas, as well as tree lines. At the time of the EIS

there were several open fields which had converted into forested areas over the last decade when the most recent calculation of tree coverage was completed. In addition, the right-of-way necessary for construction of Longmeadow Parkway and detention requirements was refined through the design process, resulting in additional tree impacts. Impacts from side street improvements were not considered in the EIS.

1. Upland Plant Communities

Impacts

The total number of trees within the Longmeadow Corridor is estimated at 7,485. The total number of trees impacted by this project (including dead trees) is about 5,765 trees. The number of dead trees is 232 based on Addendum A to the Tree Survey Report for Longmeadow Parkway dated September 2015. The dead trees do provide habitat for wildlife, specifically bats, and as a voluntary conservation measure were included as an impact and mitigated for. This number also includes the trees to be removed at Raging Buffalo Snowboard Ski Park. About 235 trees will be impacted at Raging Buffalo Snowboard Ski Park. Improvements to Raging Buffalo Snowboard Ski Park are discussed in Section XII, Special Lands.

Both the EIS and the reevaluation determined that the project area does not impact prairie. The project does occur within an Illinois Department of Agriculture quarantine area for an invasive species of the Emerald ash borer. This was not previously evaluated in the EIS because the Emerald ash borer was not an issue at the time the EIS was completed.

Both the EIS and reevaluation have identified tree impacts. Additional tree impacts were identified during the reevaluation process.

Proposed Mitigation

Tree replacement based on the IDOT Design and Environment (D&E) -18 departmental policy requires the replacement of trees within the project right-of-way to the extent practical. Where it is not practical to provide replacement plantings within the right-of-way, opportunities for plantings should be considered outside of the right-of-way or on other projects to achieve a long-term goal of providing at least as many replacement trees as the number removed. According to IDOT policy, if bare root or balled and burlapped trees are used for replacement plantings, a minimum ratio of 1:1 is recommended for the number of trees removed to the number of trees intended to be established. If seedlings are used, a minimum ratio of 3:1 is recommended. The mitigation ratio proposed for this project is 2:1, due to response to public comments, for a total of 11,530 trees. This exceeds D&E-18 and demonstrates environmental stewardship. A Tree Mitigation Plan has been prepared and can be found in Appendix C, Page C-12. Kane County plans to plant approximately 4,050 trees within the right-of-way of the Longmeadow Parkway and 7,500 trees on the west side of the Fox River within the Brunner Family Forest Preserve. Sizes, types and densities will be coordinated with the FPDKC.

2. Wildlife Resources

Both the EIS and reevaluation states that the project area contains wildlife that will be impacted; however, the project area does not contain breeding habitat for neotropical migrant species of birds. The EIS did not address the presence of nesting Bald eagles;

however, nesting Bald eagles have subsequently been observed in the project area. One confirmed Bald eagle nest is located approximately 1,330 feet southwest of the closest project limit. Since there is adequate distance between the project and this nest there will be no impact to this Bald eagle nest. One potential Bald eagle nest is located approximately 800 feet southwest of Karen Drive and Forest Drive. In April 2016, Great horned owls were documented using this nest. Per the US Fish and Wildlife Service (USFWS), since there is no information indicating that Bald eagles have ever utilized the nest but a Great horned owl was documented using the nest, a Bald eagle permit is not necessary. A memorandum prepared to summarize the Bald eagle survey is located in Appendix C, Page C-17. The Great horned owl is protected by the Migratory Bird Treaty Act.

Smallmouth bass was not evaluated during the EIS since there were no concerns regarding its populations at that time. Since that time, IDNR has conducted recent surveys and this information has been included in the reevaluation document. Per the Illinois Department of Natural Resources (IDNR), a 2015 fish survey was conducted in the project area and 250 Smallmouth bass were captured per hour. In 2014, an IDNR fish survey caught 358 Smallmouth bass per hour approximately one mile downstream. In comparison the largest amount caught on any other area within the Fox River basin was 154 per hour in 2012 (Fox River Basin Survey). The next highest catch was 95 per hour and the average for the Fox River was 38 per hour. Based on this comparison, the project area has a higher Smallmouth bass population than other areas in the Fox River Basin.

Impacts

There are no impacts anticipated to the Bald eagle, Great horned owl or Smallmouth bass.

Proposed Mitigation

Although, there are no impacts anticipated to Bald eagle, Great horned owl or Smallmouth bass commitments have been made to ensure their protection. Great horned owls were documented using the nest that is located approximately 800 feet southwest of Karen Drive and Forest Drive. Since the Great horned owl is protected by the Migratory Bird Treaty Act, the tree with the nest shall not be cleared until the young have fledged and the nest is not being used. Per the INHS, the Great horned owl nests between January 1 and May 31.

No in stream work will occur between April 1 and June 30. The in stream work restriction that is being implemented for listed threatened and endangered species will also protect the Smallmouth bass since no in stream work will occur while the Smallmouth bass is spawning.

3. Threatened and Endangered Species

In the EIS, no federally listed species were observed in the project area; however, the state listed Brown creeper was observed in the project area but no impacts were proposed. The Brown creeper was delisted in 2004.

On April 2, 2015, the USFWS listed the Northern long-eared bat as a threatened species, affording it protection under the Endangered Species Act. The project is within the range of the Northern long-eared bat; IDOT with concurrence from USFWS, has determined there is suitable habitat for the Northern long-eared bat in the project area.

State-listed species that occur within the vicinity of the project area include the state-listed threatened Blanding's turtle, threatened Starhead topminnow, and threatened Slippershell mussel. None of these species were State-listed threatened species, so none were listed in the EIS. The Starhead topminnow can be identified by its light olive tan back and upper sides with the lower sides and belly lighter to yellowish in color. There is a prominent dark blotch of color (similar to a teardrop) beneath its eye. The adult length is approximately two inches.

a. Federally-listed Species/Habitat

Identify listed species or habitat in project area

The federally listed species that occur in Kane and Cook Counties were compared to the habitat in the project area. IDOT, with concurrence from USFWS, determined that there may be suitable habitat for only the Northern long-eared bat in the project area. The following conservation measures will be implemented as part of this project:

- Trees will not be cleared from April 1 through September 30, consistent with tree clearing dates noted on the permits; and
- Impacts to trees will be mitigated at a 2:1 mitigation ratio per the tree Mitigation Plan, providing potential habitat for the Northern Long-eared bat.

The project is not likely to adversely affect the Northern long-eared bat. See Appendix C for documentation of the coordination between USFWS and IDOT.

Impacts

No Effect

May Effect

- Informal Consultation
- Formal Consultation

b. State-Listed Species

Identify listed species or habitat in project area

The in stream work restriction commitment listed in the 2002 ROD regarding the Greater redhorse and River redhorse is out of date. No record of the Greater redhorse exists in the project vicinity. A record of the River redhorse occurs approximately 2 miles downstream from the project. A record of the Starhead topminnow occurs approximately 2,000 feet downstream of the project and is not discussed in the 2002 ROD. Due to the potential presence of the River redhorse and the Starhead topminnow no in stream work in the Fox River shall occur between April 1 and June 30. In addition, a fish survey will be conducted during the summer of 2016 to document the existing habitat in the project area. Results of the survey will be incorporated into the FONSI. If any listed fish species are found, IDOT will implement commitments to protect the listed fish in consultation with IDNR.

In 2007, the Illinois Natural History Survey (INHS) conducted a mussel survey and found seven native species. No threatened or endangered species were collected. INHS stated that they "believe that the presence of listed mussel species is unlikely in the Fox River in the vicinity of the proposed Bolz Rd/Longmeadow Parkway. No listed species were found alive in the area during this visit or have been found alive in the last 50 years in a reach of the river from upstream of the Carpentersville dam to downstream of the Algonquin dam (INHS Mollusk Collection). Because of unsuitable habitat, only the most tolerant unionid mussel species, if any, typically are found in the impounded areas of the Fox River, and recolonization from downstream sources is unlikely because dams block the upstream dispersal of glochidia-bearing fishes."

A shoreline mussel survey was conducted at the Fox River Bridge crossing by Huff & Huff (consultant) on June 11, 2014. Eighteen state threatened Spike mussel shells were found. Seventeen were considered dead more than 5 years. One was considered dead less than five years (ligament attached). A shell of the Slippershell mussel and a shell of the Purple wartyback mussel were found and considered dead for more than 5 years. The Illinois Natural Heritage Database does not have any records of listed mussels in the project vicinity.

The commitment regarding mussels in the 2002 ROD states "Prior to the start of construction, a population survey of live, non-invasive mussel species will be conducted in streams to be crossed. In the event that any live specimens of the Elktoe mussel or other non-invasive species are found, a mussel relocation program will be developed in consultation with the IDNR".

This commitment was written prior to the understanding of IDNR's Incidental Take Authorization process which became effective July 17, 2001. Thus, the commitment shall be changed to "A mussel survey will be conducted in the summer of 2016 to determine if any live threatened or endangered mussels exist in the project corridor. If a state listed mussel is found, an Incidental Take Authorization will be required before any in stream work in the Fox River will occur." Results of the survey will be incorporated into the EA Errata.

The Illinois Natural History Database contains a record of the State-listed threatened Blanding's turtle (*Emydoidea blandgii*) approximately 1,000 feet south of Longmeadow Parkway. The project was coordinated with the IDNR via an EcoCAT submittal dated March 24, 2015. IDNR responded via email dated March 25, 2015 and requested several commitments which will be implemented into the project plans along the area where there is high potential for Blanding's turtle.

The commitments listed regarding the Blanding's turtle are as follows:

- In order to assist in ease of movement for the Blanding's turtle, and decrease the likelihood of entrapment in the roadway, the proposed plan has been revised to demonstrate mountable curb and gutter along the entire south leg of the proposed construction limits.
- KDOT will educate and inform construction crews and all on-site personnel about the Blanding's turtle before work begins. The local agency will distribute photos (adult and juvenile) of the species and discuss the site management plan for responding to encounters in a training session and at the preconstruction site meeting. If a turtle is encountered on site, crews will be informed to immediately stop construction in the

surrounding area and contact the appropriate staff at IDNR as listed in the contractor's documents; keeping in mind it is a criminal act to handle a listed species. Personnel on site should watch the turtle until the proper authority arrives to alleviate the situation, keeping at a respectable distance. If the turtle moves, crews should mark the spot it was seen.

- The project area near Sleepy Hollow Road and Highmeadow Lane intersection (south of Longmeadow Parkway) may contain the route to a nesting site. Therefore, potential harm to transiting turtles is a concern. IDNR recommends limiting work at Sleepy Hollow Road and Highmeadow Lane intersection to between late October and late March, when this species is hibernating, to prevent construction activities from crushing or injuring juvenile or adult turtles.
- If construction cannot be limited to between late October and late March, exclusionary fencing should be installed along the construction limits of the intersection of Sleepy Hollow Road and Highmeadow Lane. The fencing should be in place from the end of March through October to prevent turtles from entering the construction areas. Daily inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed (dug into the ground) and to check if any turtles are present on either side of the fence.
- Trenches along the construction limits of the intersection of Sleepy Hollow Road and Highmeadow Lane should be covered at the end of each work day. Before starting each work day, trenches and excavations should be routinely inspected to ensure no turtles (or other amphibians and reptiles) have become trapped within.

IDNR Consultation results

Closed	b
Date ((04-24-2015)

🗌 Open

Incidental Take Authorization

🗌 Yes

🗹 No

Part VII. Water Quality/Resources/Aquatic Habitats

The EIS states that the project involves a waterbody, the Fox River, but would not affect the physical features of the stream and would not result in impacts that require mitigation. The EIS also states that other drainage ways crossed are intermittent and generally have watersheds that are less than one square mile. Culverts of various sizes will be used for these crossings. The EIS does not discuss impacts to the waterways under the Clean Water Act. In the EIS, the proposed bridge over the Fox River was designed to span the entire floodway with no piers

placed in the river. Due to the value engineering process, it was determined to be more economical to redesign the bridge crossing to allow piers in the river. Preliminary bridge designs indicate two piers located at the eastern and western edge of the river bank. One pier is also planned in the floodplain forest on the west bank of the Fox River. This placement minimizes any direct impact on the Fox River's water quality and related biological resources or recreational activities. Removal of a portion of the floodplain forest on the west bank during construction will be mitigated by erosion control practices and revegetation. Therefore, the crossing of the Fox River includes placement of piers in the river, and in the reevaluation, the project will affect the physical features of the stream and will result in impacts that require mitigation. The placement of piers in the Fox River will result in temporary increases of sedimentation and turbidity and impacts to boating and fishing.

The study area is located in two watersheds. The majority of the study area is located within the Fox River Watershed (Hydrologic Code [HUC] 07120006) and the very western portion of the project area is located in the Kishwaukee River Watershed (HUC 07090006).

The Biological Stream Characterization (BSC) that was discussed in the EIS is outdated. The BSC has since been updated and has become the Integrated Multiple Taxa in a Biological Stream Rating System. The following updates this section of the EIS. The portions of the rivers and creeks in the study area are not listed as Biologically Significant Streams in the IDNR Biological Stream Rating Report, "*Integrating Multiple Taxa in a Biological Stream Rating System*" (2008). The segment of the Fox River that passes through the study area has a "C" rating for diversity and a "C" rating for integrity. The diversity and integrity ratings are based on a score calculated from a dataset of similar samplings. The ratings are grouped into grades, from A (high) to E (low), for different ranges of scores.

The Illinois Environmental Protection Agency (IEPA) use supports (IEPA, 2000) were updated with the following information. The IEPA Integrated Water Quality Report and Section 303(d) List (February 2016) was reviewed to determine the "Use Support" of each of the assessed rivers and creeks that are located within the limits of the proposed improvements. The Fox River is not supporting aquatic life and fish consumption. Causes include alteration in stream-side or littoral vegetative covers, other flow regime alterations, dissolved oxygen, and polychlorinated biphenyls. Sources include habitat modification, impacts from hydrostructure flow regulation/modification, and unknown sources.

Wetlands were delineated in 2013 and surface waters located within the study area. Their locations are depicted on the Environmental Resources Exhibit (Figure 1). The surface waters (i.e. rivers and creeks) are described below. Wetlands are discussed in Part X.

There were ten waterways identified within the project limits and summarized in Table 9.

Site #	Waterway Type*	Function*	Dominant Vegetation (all strata)	FQI/ C-Value	Mapped Soil Type	NWI Classificati on	Kane County ADID Classification
5	Intermittent tributary/WOUS	F, C, WH	Tatarian honeysuckle	8.0/4.0	Senachwine silt Ioam (618E)	Hydrology line	Unrated stream

Table 9Waterway Summary

Site #	Waterway Type*	Function*	Dominant Vegetation (all strata)	FQI/ C-Value	Mapped Soil Type	NWI Classificati on	Kane County ADID Classification
6	Intermittent tributary/WOUS	F, C, WH	Black walnut, white mulberry, Siberian elm, clearweed, motherwort, stickseed, pinkweed, pokeweed, crowned beggarticks, black raspberry	9.3/2.8	Senachwine silt Ioam (618E)	None	None
8	Unnamed tributary/WOUS/ Forested wetland/ Wet meadow	F, C, T, S, E,WH	Silver maple, slippery elm, Norway maple, Amur honeysuckle, Tatarian honeysuckle, tall morning glory, reed canary grass, calico aster, orange jewelweed	18.8/2.7	Peotone silty clay loam (330A), Harpster silty clay loam (67A), Drummer silty clay loam (152A)	Hydrology line/ PEMA	NRCS Farmed Wetland
10	Fox River/WOUS	F, C, WH, M	None		Water (W), Casco- Roadman Complex (969F)	R2UBH	High Quality River/Natural Open Water Wetland #100011
12	Tributary/WOUS and associated wetlands	F, C, T, S, E,WH	Green ash, American elm, Tatarian honeysuckle, common buckthorn, stickseed, common reed	11.7/2.5	Casco-Rodman Complex (969E2)	None	None
13	Tributary/WOUS/ Wet meadow/ Open water pond/ Forested	F, C, T, S, E,WH	Box elder, common buckthorn, American elm, sugar maple, Missouri gooseberry, Tatarian honeysuckle, green ash, multiflora rose, curly dock, reed canary grass, orange jewelweed, fowl mannagrass, bittersweet nightshade	16.1/2.5	Casco-Rodman Complex (969E2)	PUBHh,	Artificial Pond #904
26	Open Water Channel	F,C, WH	Black cherry, silver maple,		Kidder loam (361E2)	None	None

Site #	Waterway Type*	Function*	Dominant Vegetation (all strata)	FQI/ C-Value	Mapped Soil Type	NWI Classificati on	Kane County ADID Classification
			common buckthorn, Tatarian honeysuckle				
27	Open Water Channel	F,C, WH	Black locust, box elder		Kidder loam (361B)	None	None
28	Open Water Channel	F, C, WH	Box elder, bur oak, Virginia creeper, multiflora rose		Kidder loam (361B)	None	None
29	Intermittent tributary/WOUS	F, C, WH	Sugar maple, eastern cottonwood, Tatarian honeysuckle, jumpseed	2.1/1.5	Senachwine silt Ioam (618E)	None	None

*Wetland type is listed by IDOT classification on WIE forms.

** F = flood control, C = conveyance, T = treatment of surface runoff, S = sediment and nutrient uptake, E = erosion control, WH = wildlife habitat, M = moderation of temperature within the microclimate.

*Isolated is based on professional judgment in the field. The COE makes all final jurisdictional determinations. Isolated applies to the lack of hydrological connection to a "Waters of the U.S.

Impacts

Impacts to waterways are summarized in Table 10. The existing waterway acreage is 4.50 acres. Impacts to the waterways total 0.652 acres.

Construction impacts to water resources in this corridor occur at the bridge crossing of the Fox River and at intermittent waterways within the corridor. The proposed bridge over the Fox River will impact the Fox River and associated floodway and floodplain due to placement of piers in the river. The proposed impact resulting from the piers in the river is 0.06 acres (see Site 10 in Table 10). Preliminary bridge designs indicate two piers located at the eastern and western edge of the river bank. One pier is also planned in the floodplain forest on the west bank of the Fox River. The placement of piers in the Fox River will result in temporary increases of sedimentation and turbidity and impacts to boating and fishing. The Fox River is not a continuously navigable waterway; there are dams at regular intervals with the nearest north in Algonquin and south in Carpentersville. All other drainage ways crossed are intermittent and generally have watersheds that are less than one square mile. The EIS did not specify impacts to other drainage ways besides the Fox River. Impacts to these drainage ways would involve culvert improvements. Impacts to waterways and the required mitigation for these impacts under the Clean Water Act is listed in Table 10.

Due to the size of the proposed Fox River crossing, a variety of construction practices may be utilized. Construction will be staged as much as possible from adjacent upland areas in order to minimize temporary impacts to wetlands and waterways. The width of the river at the proposed crossing likely precludes the ability to construct the bridge from the banks. As a result, it is anticipated that temporary causeways will be required. The size of the causeway would be limited to less than one-half the width of the river at any time during any construction stage. The causeway will be utilized to construct the bridge as needed. A construction staging area is typically required at the base of a bridge to construct piers and erect beams. The staging area must be graded level adjacent to the piers to allow for the safe operation of cranes and drill rigs. Based on the crane size needed for this project, the staging area would occupy the entire proposed alignment area. Additional space would also be needed to create a level platform for crane operations. The area needed to create a level platform for crane operations would be located within the project corridor. Beam erection will be accomplished by conducting all crane operations from within the Fox River or from adjacent upland areas along the banks of the Fox River.

The temporary features within the Fox River are anticipated to be in place as long as 2 years during the construction of the Fox River Bridge. It is anticipated that the bridge construction will extend over two construction seasons.

Proposed Mitigation

The Clean Water Act requires mitigation for impacts to waterways. Proposed mitigation for the waterways are summarized in Table 10. The total mitigation required is 0.998 acres.

Removal of a portion of the floodplain forest area on the west bank during construction will be mitigated by erosion control practices and revegetation. The banks will be revegetated following construction. Vegetated ditches will be constructed for the majority of the corridor located on the west side of the Fox River. Curb and gutter with storm sewers will be used in the more urban areas east of the river. Outfalls will be protected with erosion protection measures such as rip rap or energy dissipaters.

The table below summarizes all the waterways delineated for this project, including type, watershed, jurisdictional status, Floristic Quality Index (FQI), impact, and mitigation ratios.

Site #	Watershed	JD Status	HQAR (Y/N)	Existing Waterway Acreage	Permanent Waterway Impact (Acres)	USACE Mitigation Ratio ¹	Kane County Mitigation Ratio ³	Total Mitigation (Acres)		
5	Fox	USACE	Ν	0.22	0.14	1.5:1	N/A	0.21		
6	Fox	USACE	N	0.023	0.13	1.5:1	N/A	0.20		
8	Fox	USACE	Ν	0.47	0.27	1.5:1	N/A	0.405		
10	Fox	USACE	Ν	2.44	0.06	1.5:1	N/A	0.09		
12	Fox	USACE	Ν	0.06	0.02	1.5:1	N/A	0.03		
13	Fox	USACE	Ν	1.15	0.01	1.5:1	N/A	0.02		
26	Fox	Isolated	Ν	0.10	0.01	N/A	2:1	0.02		
27	Fox	Isolated	Ν	0.01	0.01	N/A	2:1	0.02		
29	Fox	USACE	Ν	0.03	0.002	1.5:1	1.5:1	0.003		
				4.50	0.652			0.998		

Table 10 Total Waterway Impacts and Mitigation Summary

N/A Not applicable

High Quality Aquatic Resources (HQARs) include Advanced Identification (ADID) High Habitat Values (HHV) and High

Functional Value (HFV) sites, bogs, ephemeral pools, fens, forested wetlands, sedge meadows, wet meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization Study, streamside marshes, wet prairies, wetland supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater or mean-C value of 3.5 or greater.

¹ Per the US Army Corps of Engineers (USACE), for non-HQARs the minimum mitigation ratio is 1.5:1, for HQARs the minimum is 5.5:1

 2 Per the IWPA, permanent impacts that are <0.5 acre are to be mitigated at either 2:1 (in-basin) or 3:1 (out-of-basin) and impacts >0.5 acre are to be mitigated at either 4:1 (in-basin) or 5.5:1 (out-of-basin). In-basin mitigation will occur in the Fox River watershed.

 3 Per the Kane County Ordinance, Floristic Quality Index (FQI)<7=1:1 ratio, FQI>7 but <16= 2:1 ratio, FQI>16 but <25 = 3:1 ration, FQI>25 is unmitigable. However, mitigation for isolated wetland impacts upon more than one wetland within a site shall meet the standards of highest quality isolated wetland.

Operational Impacts

Salt splash and spray impacts were discussed during the EIS. The following additional information was not included in the EIS. Specific calculations were completed for this project to assess potential chloride concentrations in the streams of the project area. These calculations were completed using the U.S. Geological Survey (USGS) methodology, which is a standard estimating procedure. The USGS methodology does not consider the effects of BMPs or detention basins in estimating water quality concentrations. The results of these calculations indicate the chloride General Use Water Quality Standard of 500 mg/L would be achieved with one exception. The daily maximum chloride concentration of the tributary to the West Branch of the South Tributary to the Fox River was estimated at 513 mg/L prior to any BMP or storm water treatment. The upstream drainage area tributary to this location results in 0.14 square miles with intermittent flow. Stormwater runoff from this area is directed to a stormwater detention basin prior to discharge. This basin is anticipated to provide mixing and reduce chloride concentration peaks to below 500 mg/L. This would require only a three percent reduction from estimated peak levels, which is achievable with such equalization.

Typically, detention basins do not show chloride removals when the concentrations vary from 16 to 200 mg/L; however, two studies did indicate 11 to 13 percent lower concentrations during winter events. Primarily, the detention basins provide equalization of concentrations, which lowers the peak or maximum concentration discharged. To achieve the water quality standard would only require a 3 percent reduction, which is anticipated to be achieved and maintain water quality in that tributary.

KDOT has been proactive in reducing the impacts of salt. Through the use of computerized/calibrated salt spreaders and Global Positioning Systems (GPS), drivers can more accurately spread the correct amount of salt and better pinpoint the application of salt on its roads. In addition, drivers cannot control the applications which are pre-programmed into the computers. The trucks are regularly calibrated and spot checked. Drivers also receive regular training on de-icing procedures. KDOT continues to evaluate alternate deicers and is constantly monitoring and following the latest industry trends. Currently, KDOT is utilizing Cargill ClearLane, an enhanced deicer/salt product that contains a prewetting agent. The product adheres to the road surface more effectively than dry salt, minimizing loss of deicer from wind and traffic scatter, thereby reducing distribution to adjacent areas.

Potential impacts from increased roadway runoff due to this project are expected to involve minor short-term water quality degradation with no chronic effects.

Part VIII. Groundwater Resources

The EIS states that the upper sand and gravel aquifer is a public water supply aquifer within the project corridor. In the east half of the corridor, the shallow sand and gravel aquifer is known as the Valparaiso Aquifer. Two of the public supply wells in the City of Carpentersville, south of the proposed corridor, draw water from the Valparaiso Aquifer at a depth of 180 feet. Most of the private wells on both sides of the Fox River extract water from the Valparaiso Aquifer. The public wells reported in the project vicinity are 2,000 to 3,000 feet from the project corridor. These wells are confined to the Valparaiso aquifer. There are no changes to groundwater resources in the reevaluation.

Impacts

According to the EIS and reevaluation, roadway excavation will not penetrate either of the aquifers above bedrock that are supplying water in the vicinity of the corridor. No impedance to the groundwater flow toward the Fox River is anticipated considering the roadway section and alignment proposed.

Eleven private wells are located within 500 feet of the corridor and two within the ROW will need to be properly abandoned and capped. One well is located on the northwest corner of Longmeadow Parkway and Randall Road and the other is located on Angelina Place, just east of the Fox River. Since the EIS was approved, three wells along Angelina Place have been abandoned and capped. No public wells were noted within 1,500 feet of the corridor.

As a result of the analysis, there are no new impacts to groundwater resources.

Part IX. Floodplains

According to the EIS, the Fox River has an identified floodplain at the crossing location. The streambanks are undeveloped and include a floodplain forest on the western bank. The EIS stated that impacts to the floodplain would include the installation of one bridge pier but no acreage of impact was provided. The EIS further states that the proposed Bolz Road corridor has a transverse crossing of the Fox River floodplain and that the proposed bridge will span the entire designated floodway of the Fox River with no piers in the floodway and no construction below the 100 year flood elevation. Therefore, there will be no significant impact to flood elevations or flood flow velocities. Since the EIS, the design adjacent to the Fox River has been refined. Floodplain fill is estimated at 0.57 acre-feet from fill generated from piers and walls. Mitigation for fill in the floodplain will include providing sufficient compensatory storage.

Part X. Wetlands

According to the EIS, there were six wetlands delineated in 1995 by the Illinois Natural History Service (INHS) along the Longmeadow Parkway. Only one of those wetlands (Wetland No. 5) would be directly affected by construction of the Build Alternative but this wetland was later converted to a detention pond during the EIS process and therefore was no longer considered a wetland. Further information as to who converted the wetland to a detention basin was not provided in the EIS. Therefore, no wetland impacts were proposed.

During subsequent Phase 1 studies, the INHS re-delineated the entire corridor and four additional wetlands in 2005 and 2007. This was done due to changes that were made to the shape of the proposed corridor between 1995 and 2005. The four additional sites were new project areas not included in the 1995 study. As part of the reevaluation, a wetland delineation was conducted in October 2013, utilizing the Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region, and there were twenty wetlands delineated that are summarized in Table 11. Additional wetlands delineated between the EIS and reevaluation can be attributed to refined right-of-way necessary for construction of Longmeadow Parkway and detention requirements, which increased from when the EIS was prepared resulting in additional wetland impacts. Furthermore, impacts from side street improvements were not considered in the EIS. Adjacent development can also affect overland flow, drainage resulting in additional wetland areas over the past decade. In addition, the original wetland delineation followed procedures outlined in the "Corps of Engineers Delineation Manual (Technical Report Y087-1) which was the methodology used at that time. The current methodology used is the Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region, this methodology is more inclusive as it uses specific regional indicators that were not considered as part of the older methodology used at the time of the EIS. It also appears that farmed wetlands were not delineated for the EIS, which accounts for an additional five wetlands that are described in the reevaluation that are not included in the EIS. At the time the EIS was prepared, farmed wetland delineations were not typically completed.

Site 1, 9, and 11 are classified as Advanced identification (ADID) wetlands on the Kane County wetland mapping high habitat and/or high function wetland value.

Site #	Wetland Type	Function**	Dominant Vegetation (all strata)	FQI/ C- Value	NWI Classification	Kane County ADID Classification
1	Wet meadow/ Marsh	F,T, S, E, WH	Sandbar willow, eastern cottonwood, black willow, reed canary grass, Canada thistle, cinnamon willow herb, narrow-leaved cattail	16.7/3.1	PEMC	HHV #917
1A	Wet meadow	F,T, S, E,WH	Barnyard grass, pinkweed, narrow-leaved cattail, sedge sp.	13.1/2.7	PEMC	None
1B	Farmed	F,T, S, E,WH	Sandbar willow, river bulrush, giant ragweed Canada thistle, riverbank grape	4.2/1.3	None	None
1C	Farmed	F,T, S, E,WH	Narrow-leaved cattail, corn, deer tongue grass	12.7/2.3	PEMCf	Wetland #650 and Wetland #651
2	Farmed	F,T, S, E,WH	Box elder, elderberry, reed canary grass	10.7/2.3	None	NRCS Farmed Wetland
3	Wet meadow	F,T, S, E,WH	Box elder, silver maple, reed canary grass, riverbank grape	9.4/2.0	PEMF	Wetland #655
4	Wet meadow	F,T, S, E,WH	Eastern cottonwood, red osier dogwood, reed canary grass, common reed	12.2/2.5	None	None

Table 11 Wetland Summary

Site #	Wetland Type	Function**	Dominant Vegetation (all strata)	FQI/ C- Value	NWI Classification	Kane County ADID Classification
7	Forested	F, T, S, E,WH	Black cherry, common buckthorn, Tatarian honeysuckle, European high bush cranberry, green ash, moneywort, riverbank grape	12.8/2.3	None	HFV #643
8	Unnamed tributary/WOUS/ Forested wetland/ Wet meadow	F, C, T, S, E,WH	Silver maple, slippery elm, Norway maple, Amur honeysuckle, Tatarian honeysuckle, tall morning glory, reed canary grass, calico aster, orange jewelweed	18.8/2.7	Hydrology line/ PEMA	NRCS Farmed Wetland
9	Forested	F, T, S, E,WH	Green ash, box elder, creeping Charlie, garlic mustard	14.0/2.5	PFO1A	HFV #643
11	Forested	F, T, S, E,WH	Green ash, American elm, common buckthorn, riverbank grape	16.9/2.5	None	HFV #643
12	Tributary/WOUS and associated wetlands	F, C, T, S, E,WH	Green ash, American elm, Tatarian honeysuckle, common buckthorn, stickseed, common reed	11.7/2.5	None	None
13	Tributary/WOUS/ Wet meadow/ Open water pond/ Forested	F, C, T, S, E,WH	Box elder, common buckthorn, American elm, sugar maple, Missouri gooseberry, Tatarian honeysuckle, green ash, multiflora rose, curly dock, reed canary grass, orange jewelweed, fowl mannagrass, bittersweet nightshade	16.1/2.5	PUBHh,	Artificial Pond #904
16	Wet meadow	F, T, S, E, WH	Silver maple, common horsetail, giant ragweed, prairie cord grass	4.4/1.4	None	None
18	Marsh	F,T, S, E, WH	Narrow-leaved cattail	7.7/2.6	None	None
19	Farmed	F, T, S, E	Corn, barnyard grass	0.0/0.0	None	None
20	Farmed	F, T, S, E	Soybean	0.0/0.0	None	None
23	Wet meadow	F,T, S, E, WH	Box elder, common buckthorn, Tatarian honeysuckle, reed canary grass, common reed	2.9/1.7	None	None
25	Forested wetland/wet meadow	F, WH	Silver maple, American elm common buckthorn, reed canary grass, riverbank grape	4.1/1.7	None	None
31	Forested	F, C, T, S, E,WH	Shagbark hickory, common buckthorn, Tatarian honeysuckle, high bush cranberry	4.9/3.5	None	None

* F = flood control, C = conveyance, T = treatment of surface runoff, S = sediment and nutrient uptake, E = erosion control, WH = wildlife habitat, M = moderation of temperature within the microclimate.
 *Isolated is based on professional judgment in the field. The USACE makes all final jurisdictional determinations. Isolated applies to the lack of hydrological connection to a "Waters of the U.S".
Impacts

Longmeadow Parkway will impact eleven wetlands for a total acreage of 4.16 acres (2.37 acres jurisdictional and 1.79 acres isolated) that are summarized in Table 12. The Wetland Impact Evaluation is included in Appendix C.

Proposed Mitigation

- 🗆 On-site
- Off-site
- Wetland Bank

Description

Considering USACE, Interagency Wetland Policy Act (IWPA), and Kane County mitigation ratios, the total required wetland mitigation is 17.13 acres. Mitigation credits will be purchased from a wetland bank site in Fox River Basin.

The table below summarizes all the wetlands delineated for this project, including type, watershed, jurisdictional status, Floristic Quality Index (FQI), impact, and mitigation ratios. There are three mitigation ratios based on the Clean Water Act, Interagency Wetlands Policy Act and the Kane County ordinance. The highest mitigation ratio out of the three will be used. The highest mitigation ratio has been bolded in Table 12. The total mitigation required is 17.13 acres. The USACE has made final jurisdictional status determinations on all wetlands in Table 12 below per a letter dated June 2, 2014 to KDOT.

Site #	Watershed	JD Status	HQAR (Y/N)	Existing Wetland Acreage	Permanent Wetland Impact (Acres)	USACE Mitigation Ratio ¹	IWPA Mitigation Ratio ²	Kane County Mitigation Ratio ³	Total Mitigation (Acres)
1B	Kishwaukee	Isolated	Ν	0.08	0.08	N/A	3:1	2:1	0.24
1C	Fox	USACE	Ν	2.34	0.26	1.5:1	2:1	N/A	0.52
2	Fox	Isolated	Ν	1.69	1.15	N/A	4:1	2:1	4.60
3	Fox	Isolated	Ν	0.30	0.19	N/A	2:1	2:1	0.38
4	Fox	Isolated	Ν	0.17	0.17	N/A	2:1	2:1	0.34
7	Fox	USACE	Y	0.56	0.40	5.5:1	2:1	N/A	2.20
8	Fox	USACE	Ν	1.35	0.68	1.5:1	4:1	N/A	2.72
11	Fox	USACE	Y	1.36	1.03	5.5:1	4:1	N/A	5.67
16	Kishwaukee	Isolated	Ν	0.35	0.06	N/A	3:1	2:1	0.18
20	Fox	Isolated	Ν	0.48	0.13	N/A	2:1	2:1	0.26
31	Fox	Isolated	Ν	0.03	0.01	N/A	2:1	2:1	0.02

Table 12						
Total	Wetland	Mitigation	Summarv			

Site #	Watershed	JD Status	HQAR (Y/N)	Existing Wetland Acreage	Permanent Wetland Impact (Acres)	USACE Mitigation Ratio ¹	IWPA Mitigation Ratio ²	Kane County Mitigation Ratio ³	Total Mitigation (Acres)
				8.71	4.16				17.13

N/A Not applicable

High Quality Aquatic Resources (HQARs) include Advanced Identification (ADID) High Habitat Values (HHV) and High Functional Value (HFV) sites, bogs, ephemeral pools, fens, forested wetlands, sedge meadows, wet meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization Study, streamside marshes, wet prairies, wetland supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater or mean-C value of 3.5 or greater.

¹ Per the USACE, for non-HQARs the minimum mitigation ratio is 1.5:1, for HQARs the minimum is 5.5:1

² Per the IWPA, permanent impacts that are <0.5 acre are to be mitigated at either 2:1 (in-basin) or 3:1 (out-of-basin) and impacts >0.5 acre are to be mitigated at either 4:1 (in-basin) or 5.5:1 (out-of-basin). In-basin mitigation will occur in the Fox River watershed.

³ Per the Kane County Ordinance, FQI<7=1:1 ratio, FQI>7 but <16= 2:1 ratio, FQI>16 but <25 = 3:1 ration, FQI>25 is unmitigable. However, mitigation for isolated wetland impacts upon more than one wetland within a site shall meet the standards of highest quality isolated wetland.

Wetland Finding

A wetland finding is required by Executive Order 11990.

Various methods of avoidance and minimization were analyzed for the project, including reducing the typical roadway cross section by reducing lane and median widths. Lane widths were minimized from the standard 12 foot wide lanes to 11 foot wide lanes which minimize impervious surfaces and reduce environmental impact. On the east side of the Fox River, wetland impacts are being reduced through the use of retaining walls or Manufactured Structural Earth (MSE) walls at the bridge abutments and bridge approaches. These walls reduce the footprint of the bridge approach by eliminating the need for bridge cone grading. In addition, culverts at stream crossings are proposed to have natural bottoms or be sumped in cobblestone to maintain a natural substrate. Because of the proximity of the wetlands and WOUS to the proposed corridor alignment, impacts to wetlands and WOUS are unavoidable.

The proposed corridor alignment was shifted to avoid impacts to wetland Sites 1, 1A, 9, 25 and 33. Perimeter erosion control fencing will be placed adjacent to all wetland sites to prevent intrusion beyond the construction limits. Construction will be staged as much as possible from upland areas to eliminate mass grading and reduce potential for erosion and sedimentation.

Based on the above considerations, the determination is that there is no practicable alternative to the proposed construction and impact to wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.

Part XI. Special Waste

The proposed project will not require any right-of-way or easement from any Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) site. The only Resource Conservation and Recovery Act (RCRA) generator in the project vicinity is Meyer Material Company but there were no violations on file and the area groundwater gradient is parallel to the proposed corridor. Just west of the Meyer Material Company is the Fox Valley Gun Club with a small arms shooting range located within the proposed corridor. There is a potential for lead contamination at this location.

A Preliminary Environmental Site Assessment (PESA) was conducted as part of the reevaluation. According to the PESA review dated December 18, 2014 prepared by the Illinois State Geological Survey (ISGS), there were five Recognized Environmental Conditions (RECs) and *de minimus* conditions at 34 sites along the project corridor. The Special Waste Review is attached as Appendix D, Page D-2. A Preliminary Site Investigation (PSI) will need to be completed to determine if any of the sites or Right-of-Way (ROW) adjacent to the sites will be impacted with the proposed work and/or if any ROW will be required at any of the locations.

Part XII. Special Lands

Special lands for the north region included the Fox River Trail, FPDKC properties of Algonquin Shores and Fox River Shores, and the Dundee Township Park District Hickory Hills site. The Algonquin Shores Forest Preserve is north of Bolz Road between the Fox River and Williams Street. The Fox River Shores Forest Preserve is south of Bolz Road along both banks of the Fox River to about Lake Marian Road. The Hickory Hills site is located north of Bolz Road between Illinois Route 62 (Algonquin Road) and Illinois Route 25 in unincorporated Kane County. The EIS stated that 2.12 acres of Algonquin Shores/Fox River Shores and 6.64 acres of Hickory Hills would be impacted by the Longmeadow Parkway. Since the EIS, Algonquin Shores has been incorporated into Fox River Shores; it is no longer a separate forest preserve property. The impacts to Hickory Hills remain at 6.64 acres in the reevaluation while the impacts to Fox River Shores increased to 2.96 acres. The IGA between KDOT and Dundee Park District is included in Appendix A, Page A-17. A timeline of the coordination between KDOT and Dundee Park District is included in Appendix A, Page A-45.

New work is proposed at the Buffalo Park Forest Preserve and the Fox River Shores Forest Preserve.

After the ROD was issued, the Brunner Family Forest Preserve was established by the FPDKC. FPDKC worked with the KDOT to jointly plan the Brunner Family Forest Preserve to reserve a corridor within it for the Longmeadow Parkway. Additional temporary work is now proposed within the Brunner Family Forest Preserve.

A letter from KDOT to the Federal Highway Administration detailing the history of the Brunner property is attached as Appendix E and the following exhibits to this letter also are attached and summarized below.

- Exhibit I includes reference to the Final EIS and Section 4(f) Evaluation.
- Exhibit II includes an excerpt from the ROD.
- Exhibit III includes an email regarding the Brunner parcel acquisition.
- Exhibit IV includes an article on the Brunner Farm site.
- Exhibit V includes a letter between KDOT and the FPDKC regarding Algonquin Shores FPDKC and the Brunner parcel.
- Exhibit VI includes an intergovernmental agreement between the County and the FPDKC.
- Exhibit VII includes a letter from the County to Fred Brunner regarding impacts to the Brunner parcel.

- Exhibit VIII includes an affidavit from John Hoscheit (Commissioner and President of the FPDKC) regarding the coordination efforts of the FPDKC with the Longmeadow Parkway project.
- Exhibit IX is the 2030 Land Resource Management Plan and map showing the Longmeadow Parkway alignment.
- Exhibit X is an amendment to the intergovernmental agreement between the County and the FPDKC extending the termination date from January 1, 2005 to January 1, 2010.
- Exhibit XI and Exhibit XII include letters from the County to Suburban Trust and Savings Bank regarding property acquisition.
- Exhibit XIII includes the FPDKC Executive Committee Meeting Minutes.
- Exhibit XIV includes an article regarding the purchase of the Brunner property by the FPDKC.
- Exhibit XV is the resolution establishing the intent of the intergovernmental agreement between the County and the FPDKC.
- Exhibit XVI is the resolution authorizing the execution of an intergovernmental agreement with Kane County
- Exhibit XVII is the warranty deed
- Exhibit XVIII is the Transportation Committee Meeting Minutes dated June 16, 2015.
- Exhibit XIX is the restatement of agreements between KDOT and the FPDKC regarding the Longmeadow Parkway Extended.
- Letters from FHWA to homeowners regarding Section 4(f) concerns
- Buffalo Park Temporary Occupancy Letter

Additional information regarding each of these forest preserves, proposed improvements and impacts are described below.

1. Section 4(f)

Perry-Lathrop property

The Perry-Lathrop property is located along the east side of Illinois Route 31 at 19N045. The project will take approximately 0.23 acres of frontage from the Perry-Lathrop property. This property is considered eligible for inclusion on the National Register of Historic Places and is therefore protected under Section 4(f).

An approximately 40 feet wide strip of land will be taken in front of the Perry Lathrop House. The only impact will be visual and a landscape plan will be developed and submitted for State Historic Preservation Office (SHPO) approval for the area adjacent to the Perry Lathrop property prior to construction. The parcel to the south and east of the Perry Lathrop property, known as the Melva property, will be acquired by the County and transferred to the FPDKC. The Melva property will be transferred to the Forest Preserve District of Kane County and will be maintained in perpetuity as greenspace.

The Illinois SHPO was notified that FHWA intended to make a *de minimis* determination based upon their concurrence with the "no adverse effect" finding. The Illinois SHPO concurred in a letter dated July 7, 2016 (located on Page A-60 in Appendix A).

The FHWA has determined that the use of the Perry-Lathrop property, including the measures to minimize harm described above, will have a *de minimis* impact, as defined in 23 CFR 771.17, on the property.

Buffalo Park Forest Preserve

There is no Section 4(f) use of the Buffalo Park Forest Preserve.

Buffalo Park Forest Preserve, which is owned by the FPDKC, is located just north of the Longmeadow Parkway project limits and is considered a Section 4(f) resource. Buffalo Park Forest Preserve was acquired in the 1980's and is approximately 29 acres. Features, attributes and activities at this preserve that qualify it for protection under Section 4(f) include picnic areas, a loop trail for walking and biking, access to fishing, several parking areas and restrooms. Within the Buffalo Park Forest Preserve is the Raging Buffalo Snowboard Ski Park, woodlands and the Fox River shoreline. The FPDKC is planning to expand the Raging Buffalo Snowboard Ski Park, including additional parking, a new building and a larger snowboarding hill.

Excavation for the Longmeadow Parkway project will create approximately 524,000 cubic yards of excess material that requires disposal. KDOT and FPDKC have worked together on a plan to use the excess material to improve the snowboarding hill within the Raging Buffalo Snowboard Ski Park. In order to move the material to the Raging Buffalo Snowboard Ski Park, a temporary haul road will be constructed in both the Buffalo Park Forest Preserve and the Brunner Family Forest Preserve. This road will be used solely to haul material to the snowboarding hill. A concept plan showing the proposed improvements is located in Appendix E, Page E-100.

The construction activities within the Buffalo Park Forest Preserve are considered a temporary occupancy because it is so minimal that it does not constitute a use within the meaning of Section 4(f). Pursuant to 23 C.F.R. 774.13(d), the following conditions will be satisfied:

- (1) Duration will be temporary, i.e., less than the time needed for construction of the project and there will be no change in ownership of the land.
- (2) The scope of the work is minor and the magnitude of changes to the Section 4(f) property are minimal.
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.
- (4) The land will be fully restored and the property will be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There is a documented agreement with the official with jurisdiction over Buffalo Park Forest Preserve. (See Appendix E, Page E-117)

Brunner Family Forest Preserve

There is no Section 4(f) use of the Brunner Family Forest Preserve.

The Brunner Family Forest Preserve is approximately 741 acres and is located adjacent to the Longmeadow Parkway north and south of the corridor, west of the Fox River. This forest preserve was established in October 2008, after the ROD for this project was issued. Features, attributes and activities at this preserve that qualify it for protection under Section 4(f) include a picnic shelter, informational kiosk, fishing access, interpretive signs, parking lot, restrooms and five miles of trails.

A corridor within the Brunner Family Forest Preserve was formally reserved for the Longmeadow Parkway before the forest preserve was established, based on the alignment established in the ROD. The Longmeadow Parkway was a jointly planned transportation facility between FPDKC and KDOT prior to the FPDKC acquiring this land from the Brunner family. The FPDKC closed on the property on October 1, 2008 and right-of-way was transferred to KDOT on April 14, 2009 for the Longmeadow Parkway project. A map showing the location of Longmeadow Parkway within Brunner Family Forest Preserve is included in Appendix E, Page E-28. A complete history of the Brunner Family Forest Preserve acquisition process is attached as Appendix E, Page E-1 through E-78.

Pursuant to 23 CFR 774.11(i), when a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established and concurrent or joint planning or development of the transportation facility and the Section 4(f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use. Because the Longmeadow Parkway was a concurrent and jointly planned facility with the Brunner Family Forest Preserve, there is not a Section 4(f) use of the Brunner Family Forest Preserve.

A temporary haul road will also be constructed in the Brunner Family Forest Preserve, which was not identified in the EIS. This haul road is outside of the original footprint of what was in the joint agreement and will be used solely to haul material to the snowboarding hill at the Buffalo Park Forest Preserve. The construction activities within the Brunner Family Forest Preserve for the hauling of material to the snowboarding hill are considered a temporary occupancy because it is so minimal that it does not constitute a use within the meaning of Section 4(f). Pursuant to 23 C.F.R. 774.15(d), the following conditions will be satisfied:

- (1) Duration will be temporary, i.e., less than the time needed for construction of the project and there will be no change in ownership of the land.
- (2) The scope of the work is minor and the magnitude of the changes to Section 4(f) property are minimal.
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis.
- (4) The land will be fully restored and the property will be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There is documented agreement with the official with jurisdiction over Brunner Family Forest Preserve. (See Appendix E, Page E-117)

KDOT plans to plant approximately 7,500 trees on the west side of the Fox River within the Brunner Family Forest Preserve. Sizes, types and densities will be coordinated with the FPDKC.

Fox River Shores Forest Preserve

There is a Section 4(f) use of the Fox River Shores Forest Preserve; however, it qualifies as a *de minimis* impact.

Fox River Shores Forest Preserve, which is owned by the FPDKC, is an approximately 393 acre site located within the Longmeadow Parkway project limits on the east and west sides of the Fox River. It is bordered by the Brunner Family Forest Preserve to the north and the Raceway Woods Forest Preserve to the southwest. Within the Fox River Shores Forest Preserve is the Fox River Trail, woodlands and the Fox River shoreline. There are several features, attributes and activities at this preserve that qualify it for protection under Section 4(f). The Fox River Shores Forest Preserve includes the Fox River Trail bike path running the length of the preserve. There also is a picnic area, shelter, restrooms, fishing and boat launch along the Fox River near the south end of the preserve.

Included as part of the Longmeadow Parkway project are several improvements to the Fox River Trail. A new connection to the Fox River Trail will be provided from Longmeadow Parkway, which will provide a connection across the Fox River, and a connection between both Forest Preserves. This will require 0.9 acres of temporary easement to re-align the trail. A detention pond will be constructed under the proposed Fox River Bridge and just west of the realigned bike path to provide storage for storm water runoff from Longmeadow Parkway. This will enhance water quality within the area. A MSE wall will be constructed where the current Fox River Trail crosses under the proposed Longmeadow Parkway alignment, requiring the trail to be realigned. This will require 2.06 acres of permanent right-of-way from the Forest Preserve property.

This project will result in the use of the Fox River Shores Forest Preserve, a Section 4(f) resource. On May 3, 2015, KDOT published a notice to offer the opportunity for the public to comment on the effects of the project on the protected activities, features, or attributes. The majority of the comments received during this public notice did not pertain to the impacts of the Fox River Shores Forest Preserve improvements. The most prevalent comment relevant to this notice was that the Fox River Shores impacts were adverse enough that this work should not be considered for *de minimis* processing. Other comments included displeasure at the loss of right-of-way at Fox River Shores and the additional disruption of a third forest preserve. In a letter dated May 24, 2016, the FPDKC was notified that FHWA intended to make a *de minimis* impact finding and on June 17, 2016 the FPDKC concurred in writing that the project will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. These letters can be found in Appendix E on Page E-124 and Page E-125. The agreement between the KDOT and FDPKC about the right-of-way acquisition in the Fox River Shores Forest Preserve can be found in Appendix E on Page E-79.

FHWA hereby makes a *de minimis* impact finding for this use as it will not adversely affect this resource's features, attributes, or activities that qualify the property for protection under Section 4(f). The *de minimis* impact finding is based upon the impact avoidance, minimization, and mitigation or enhancement measures detailed in the documentation submitted and included in at the end of this document.

2. Section 6(f)

Description

The Hickory Hills site is a Section 6(f) and 4(f) property and is located north of Bolz Road between Illinois Route 62 (Algonquin Road) and Illinois Route 25 in unincorporated Kane County. The EIS stated that 6.64 acres of Hickory Hills would be impacted by the Longmeadow Parkway and determined there were no feasible and prudent alternatives and documented all possible planning to minimize harm to the Section 4(f) resource. The impacts to Hickory Hills remain at 6.64 acres in the reevaluation. The total mitigation for the 6.64 acres is 19.5 acres. The Park District received 4.132 acres in 2006 and 10 acres in 2016. There is currently 5.414 acres pending to be transferred to the Park District. The IGA between KDOT and FPDKC is included in Appendix A, Page A-7.

3. Open Space Lands Acquisition and Development (OSLAD) Act Lands

Description

There are no Open Space Lands Acquisition and Development (OSLAD) lands identified in the EIS and this remains unchanged in the reevaluation.

4. Illinois Natural Area (INAI) Sites

Description

There were no INAI sites identified in the EIS and this remains unchanged in the reevaluation.

5. Nature Preserves

Description

There were no nature preserves identified in the EIS and this remains unchanged in the reevaluation.

6. Land & Water Reserves

Description

There were no land and water reserves identified in the EIS and this remains unchanged in the reevaluation.

Environmental Commitments

Commitments listed in the EIS included the following:

1. As part of the Congestion Management Study, Pace requested the right to review any proposed plans to ensure compatibility with existing or proposed bus service. When Phase 1 plans are developed, Pace will be provided copies of the relevant portion for their input.

- 2. For all corridors in areas of near surface granular materials, drainage ditch lining shall be used, if drainage ditches are used, to reduce potential for infiltration of spills and other runoff contaminants.
- 3. Due to the potential presence of River redhorse and the Starhead topminnow, no in stream work in the Fox River shall occur between April 1 and June 30. In addition, a fish survey will be conducted in the summer of 2016 to document the existing habitat in the project area. If any listed fish species are found, IDOT will implement commitments to protect the listed fish in consultation with IDNR.
- 4. The commitment in the 2002 ROD which states "Prior to the start of construction, a population survey of live, non-invasive mussel species will be conducted in streams to be crossed. In the event that any live specimens of the Elktoe mussel or other non-invasive species are found, a mussel relocation program will be developed in consultation with the IDNR" was written prior to the understanding of the Incidental Take Authorization process which became effective July 17, 2001. Thus, the commitment shall be changed to "A mussel survey will be conducted in the summer of 2016 to determine if any live threatened or endangered mussels exist in the project corridor. If a state listed mussel is found, an Incidental Take Authorization will be required before any in stream work in the Fox River will occur."
- 5. As plans for the corridor are developed, ongoing coordination will take place with Pace and Metra to ensure the maximum practical inclusion of Travel Demand Reduction (TDR), Operational Management Strategies (OMS), and mass transit extensions and improvements in the project.
- 6. A system of Stormwater Management ponds will be built to comply with, as a minimum, the Kane County Stormwater Management ordinance and, where feasible, to extend residence time to promote sediment removal and dilute the release of the accumulated deicing agencies. Ponds will be lined to diminish interaction with groundwater.
- 7. Wetland mitigation for direct impacts will be provided in accordance with the more stringent of the USACE, IDNR and Kane County requirements and policies. Credits from a wetland bank site from the same wetland basin will be purchased before the project is included on a letting.
- 8. Erosion and Sediment Control during construction shall comply with the requirements of the Kane County Stormwater ordinance. The construction plans for each phase shall have the Erosion and Sediment control plans reviewed by the Kane County Nature Resources Department.
- 9. Compensatory Storage for fill within the regulatory floodplain will be provided in accordance with the more stringent requirements of the Kane County Countywide Stormwater Ordinance of IDNR-Office of Water Resource (OWR) policies.
- 10. Coordination will be carried out with SHPO prior to the construction of any corridor where potential archaeological sites exist to allow documentation of the site.

11. Coordination will be carried out with SHPO as plans for the Bolz Road Corridor (Longmeadow Parkway) are developed to allow coordination on minimizing the impacts to the Perry Lathrop property.

Additional commitments that KDOT has agreed to follow since the EIS include the following:

- 1. In order to assist in ease of movement for the Blanding's turtle, and decrease the likelihood of entrapment in the roadway, the proposed plan has been revised to demonstrate mountable curb and gutter along the entire south leg of the proposed construction limits.
- 2. KDOT will educate and inform construction crews and all on-site personnel about Blanding's turtle before work begins. The local agency will distribute photos (adult and juvenile) of the species and discuss the site management plan for responding to encounters in a training session and at the preconstruction site meeting. If a turtle is encountered on site, inform crews to immediately stop construction in the surrounding area and contact the appropriate staff at IDNR as listed in the contractor's documents; keeping in mind it is a criminal act to handle a listed species. Personnel on site should watch the turtle until the proper authority arrives to alleviate the situation, keeping at a respectable distance. If the turtle moves, crews should mark the spot it was seen.
- 3. The project area at Sleepy Hollow Road and Highmeadow Lane (south of Longmeadow Parkway) may contain the route to a nesting site. Therefore, potential harm to transiting turtles is a concern. IDNR recommends limiting work at Sleepy Hollow Road and Highmeadow Lane to between late October and late March, when this species is hibernating, to prevent construction activities from crushing or injuring juvenile or adult turtles.
- 4. If construction cannot be limited to between late October and late March, exclusionary fencing should be installed along the construction limits at the intersection of Sleepy Hollow Road and Highmeadow Lane. The fencing should be in place from the end of March through October to prevent turtles from entering the construction areas. Daily inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed (dug into the ground) and to check if any turtles are present on either side of the fence.
- 5. Trenches along the construction limits at the intersection of Sleepy Hollow Road and Highmeadow Lane should be covered at the end of each work day. Before starting each work day, trenches and excavations should be routinely inspected to ensure no turtles (or other amphibians and reptiles) have become trapped within.
- 6. Trees shall not be cleared from April 1 through September 30 to protect the Northern long-eared bat.
- 7. Impacts to trees shall be mitigated in accordance with the Tree Mitigation Plan developed for the Longmeadow Parkway project.

- 8. Instead of providing clay lined ditches as described in Item 2 of the EIS commitments, current BMP's will be provided that allow for infiltration. See Appendix G, Page G-165 for the Errata Sheet to the ROD.
- 9. Water wells that are within 200-feet of the project will be properly capped and abandoned unless they can be demonstrated that the well is deep, properly cased, and not hydraulically connected to the surface. If the dwelling associated with the water well will remain after construction is completed, the water well will be replaced or another suitable alternative will be provided. The water well will be constructed such that susceptibility to surficial contamination is minimized, for example, by constructing the well in a deeper aquifer.
- 10. A PSI shall be completed before the project is included on a letting to determine if any of the sites or ROW adjacent to the sites will be impacted with the proposed work and/or if any ROW will be required at any of the locations identified in the PESA.
- 11. Great horned owls were documented using the nest that is located approximately 800 feet southwest of Karen Drive and Forest Drive. Since the Great horned owl is protected by the Migratory Bird Treaty Act, the tree with the nest shall not be cleared until the young have fledged and the nest is not being used. Per the INHS, the Great horned owl nests between January 1 and May 31.

Permits/Certifications Required

There were no permitting requirements stated in the EIS. The following permits will be required for the Longmeadow Parkway project:

- An Individual Section 404 permit from the USACE including separate Water Quality Certification from the IEPA will be required due to impacts to wetlands and WOUS. This will require review and approval of the soil erosion and sediment control plans from the Kane DuPage Soil and Water Conservation District
- Construction permits from IDNR Office of Water Resources (OWR) will be required for fill placed in the floodway
- A National Pollutant Discharge Elimination System (NPDES) Permit will be required from the IEPA for construction disturbance greater than 1 acre.

Public Involvement

Public involvement occurred during the original EIS. According to the EIS, in May and June of 1993, public meetings were held in the South, Central, and Northern regions of the project area. The purpose of these meetings was to introduce the public and officials to the project and solicit their opinions and insights into the potential corridors. General concerns were expressed about whether the project or any of the corridors are warranted and questions were raised whether there were less intrusive options than building new roads. More specific concerns focused upon intrusion into parklands and impacts to wetlands as well as displacements. The second public meeting was held on February 16, 1994. This meeting was held when consideration was being given to dropping corridors from further study. The purpose of this meeting was to present the corridors with their known impacts so the public could comment before finalizing the recommendations of the draft *Corridor Analysis Document*. In general, a recommendation to discontinue further study of a corridor evoked no negative response. The third series of public meetings were held in May 1995. Separate meetings were held in the North, Central and South

Regions. At these meetings only five corridors that were being advanced for further study were presented. The Bolz Road (Longmeadow Parkway) corridor did not evoke much response. A series of public hearings were held in July 1998 at four locations with Kane County. The North Region hearing was held at the Randall Oaks Golf Club in West Dundee. Much of the commentary at this hearing focused on the Bolz Road Corridor (Longmeadow Parkway), with the majority of comments in opposition to the corridor for a variety of reasons. All public involvement prior to the signing of the ROD is documented in the EIS (Record of Public Hearings, Comments to the Release of the Draft EIS and Responses).

After approval of the EIS and ROD, a Public Hearing was held on March 26, 2009. The purpose of this hearing was to present Longmeadow Parkway as a toll highway facility, thereby using tolls to fund construction of the facility. The toll facility would be an electronic collection and there would be no changes to the geometry as previously proposed. The documentation of this Public Hearing is contained in the "Technical Memorandum for the Fox River Bridge Crossings Final Environmental Impact Statement and Section 4(f) Evaluation" dated November 2009. Other public involvement activities have occurred to clarifying the impacts to individual property owners.

Several public meetings since 1990 have occurred at a variety of locations including municipalities, park districts, schools, libraries, golf clubs and community centers. A summary of public involvement meetings is provided in Appendix F including dates, venues, and topics.

Agency Coordination

Agency coordination occurred during the original EIS. As documented in the EIS, in conformance with the NEPA/404 Process outside coordination was handled within the framework of meetings on the following concurrence points: 1) Purpose and Need, 2) Alternatives Carried Forward, and 3) Selected Alternative. The first scoping meeting was held May 26, 1993. At this meeting the scope of the project with probable range of proposed alternatives and schedule were presented. The second scoping meeting was held on December 1, 1993. The purpose of this meeting was to develop a consensus on the dropping from further evaluation corridors that did not satisfy the purpose and need or those corridors that had unacceptable impacts. Since the USACE was not represented a follow up meeting was held on January 19, 1994. The culmination of these efforts was the final Corridor Analysis Document which reduced the number of corridors under study to five. The corridors to be advanced were reduced to Bolz Road (Longmeadow Parkway), CC&P/Stearns Road, Red Gate, C&NW/Dean Street, and Mooseheart/Illinois Route 56. On March 2, 1995 a meeting was held to seek concurrence on the Purpose and Need statement and to prepare for Concurrence Point 2 by a limited presentation of the corridors still under study. On April 18, 1995 a meeting was held on Concurrence Point 2. The alternatives presented included the No-Build, Congestion Management System (CMS), and each of the proposed build alternative corridors. On April 27, 1995 a follow-up meeting was held with the USACE and USEPA to request a formal response. On July 19, 1995 another meeting was held to attempt to secure closure on Concurrence Points 1 and 2. Concurrence was received from USEPA, USACE, and USFWS with a caveat that it could be rescinded because of new relevant data. The Concurrence Point 3 was held on May 17, 2001. After a presentation on the three remaining corridors (Bolz Road [Longmeadow Parkway], CC&P/Stearns Road, and Illinois 56/Oak Street), the impacts and the proposed mitigation, USFWS, USEPA and USACE agreed that these three could be the selected alternatives.

Since the ROD was signed, agency coordination has continued between Kane County, IDOT, and agencies interested in the proposed project have involved issues regarding sensitive environmental resources and coordination has been on-going with the following agencies:

- Illinois Historic Preservation Agency
 - Coordination included review of impacts resulting from Perry Lathrop House and the Melva property.
- U.S. Army Corps of Engineers
 - Coordination included WOUS and wetland impacts as well as Northern long-eared bat coordination
 - Original Individual Permit (IP)
 Pre-Application Meeting: 1/7/2014
 - Original IP Submittal: 7/11/2014
 - USACE Public Notice #1: 9/3/2014
 - IP Addendum Meeting: 10/30/2014
 - IP Addendum Submittal: 11/18/2014
 - Joint USACE/USFWS Meeting: 9/22/2015
 - USACE/IEPA Joint Public Notice #2: 12/9/2015
 - Permit currently pending review
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
 - Coordination included review and approval of Tree Mitigation Plan, Northern longeared bat and Bald eagle concerns.
 - Joint USACE/USFWS Meeting: 9/22/2015
- Illinois Department of Natural Resources
 - Coordination included protection of Smallmouth bass, Blanding's turtle, Starhead topminnow, Slippershell and Spike mussel, Greater and River redhorse
- Illinois Department of Natural Resources Office of Water Resources
 - Coordination regarding floodway and floodplain impacts
 - Original Submittal: 2/13/2015
 - Public Responses Submitted: 2/15/2016
 - Permit currently pending review
 - Illinois Environmental Protection Agency
 - Submittal: 3/27/2015
 - IEPA Public Notice #1:4/17/2015
 - USACE/IEPA Joint Public Notice #2: 12/9/2015
 - Certification currently pending review

A major coordination effort in the reevaluation was devoted to potential Section 4(f) issues involving the FPDKC and the IDNR with regards to the Buffalo Park Forest Preserve, Fox River Shores Forest Preserve, and Brunner Family Forest Preserve. On-going coordination has been provided with the FPDKC and they have been an active participant in the process, including attending internal status meetings. Continued involvement will be required for ROW acquisition.

Besides Kane County, the proposed improvement involves the Villages of Algonquin, Barrington Hills, and Carpentersville. These communities along with the Villages of West Dundee, East Dundee, Gilberts, Huntley, Lake in the Hills, Sleepy Hollow, and McHenry County have been involved in the project throughout its duration.

SECTION V. COMMENTS

Several comments from Section 4(f) and USACE public notices have been received and formal responses are included in Appendix G.

SECTION VI. FIGURES AND APPENDICES

The following figures and appendices are incorporated as part of this Environmental Assessment Reevaluation:

Section 4(f) De Minimis for Fox River Shores Forest Preserve

Figures

Figure 1 – Environmental Resource Map

Figure 2 – Range in ADT Values

Figure 3 – Aerial Photographs Comparing Land Use

Appendices

- Appendix A Cultural Resources
- Appendix B Noise Analysis

Appendix C – Natural Resources

Appendix D – PESA Review

Appendix E – Section 4(f) Documentation

- Appendix F Significant Milestones and Public Meeting Summary
- Appendix G Public Comments and Reponses

1. Job No. P-91-404-16, IL 62 from IL 25 to IL 68, Phase I Project, Kane and Cook Counties, Region One, District One

This project requires **20% DBE** participation, or if the contract goal is not met documented evidence of good faith efforts.

The Complexity Factor for this project is 0.035.

The Consultant who is selected for this project and all subconsultants the prime Consultant will be using are scheduled to attend an initial meeting on **October 26, 2016** at **9:00 A.M.** at the Region One, District One Office in Schaumburg.

Phase I engineering services are required for all work associated with the preparation of preliminary engineering and environmental studies for the improvement of approximately five miles of IL 62 (Algonquin Road) from IL 25 to IL 68 in Cook and Kane Counties. Typically, the existing roadway cross section consists of one lane in each direction (undivided) with aggregate shoulders. The proposed improvement is anticipated to address geometric modifications through reconstruction to accommodate existing and projected year 2040 travel demands. Also anticipated to be considered is the need for a center median to accommodate turning vehicles with auxiliary lanes at intersections. Existing signals will be modernized and other intersections will be investigated for signal warrants. Bridge inspections and reports will be required. A key planning tool will include a public involvement program based upon the principles of Context Sensitive Solutions. The scope will also include all related work necessary to complete a Combined Design Report and an accompanying Environmental Assessment.

The Consultant's work will include data collection, traffic counts, crash analysis, alternate geometric studies, location drainage studies, hydraulic reports, construction cost estimates, intersection design studies, bridge inspections and reports, traffic maintenance analysis, and all other work necessary to complete Phase I.

The department will make available to the Consultant microfilm plans, survey, crash data, utility coordination and correspondence, structural inventory data, and archeological, historical, biological, and special waste and coordination.

The estimated construction cost is expected to be in excess of \$100,000,000. The completion date for this contract will be 48 months after authorization to proceed.

Key personnel listed on **Exhibits A** and **B** for this project must include:

- The person who will assume the duties of Project Manager for all aspects of the work documents (must be an Illinois Licensed Professional Engineer).
- The person who will perform the duties of Project Engineer, that individual in charge who is directly involved in the development of the contract documents (must be an Illinois Licensed Professional Engineer).
- The person who will perform/supervise the work in the area of hydraulic/drainage calculations and preparation of the Drainage/Hydraulic Reports (must be an Illinois Licensed Professional Engineer). Special Studies (Location Drainage) and the Hydraulic Reports (Waterways: Typical) categories may be completed by a sub and/or prime Consultant.

- The person who will perform the work in the area of structure plan preparation (must be an Illinois Licensed Structural Engineer). In addition, the staff performing this work must be identified. **Structures (Highway: Typical)** prequalification category requirement may be completed by sub and/or prime Consultant.
- The person(s) who will perform the QC/QA review work of all milestone submittals (must be an Illinois Licensed Professional Engineer for roadway work and an Illinois Licensed Structural Engineer for structure work with adequate plan review experience).
- The Environmental Lead, who will be responsible for the day-to-day management of the environmental work effort, and persons responsible for all environmental disciplines including air quality, water quality, traffic noise, socio-economic/community impacts, and ecology. Environmental staffing on **Exhibit B** must match the staffing presented in the firm's most recently approved Statement of Experience and Financial Condition.
- The person in charge of CSS/Public Involvement procedures. Include a detailed description
 of CSS/public involvement work he/she has directed involving facilitation of public meetings
 and public hearings, organizing work groups and press conferences, drafting press
 releases and property owner contact letters, etc.

The prime firm must be prequalified in the Location/Design Studies (Reconstruction/Major Rehabilitation) category to be considered for this project.

The Prime Consultant must be prequalified in **Environmental Reports (Environmental Assessment)** and must perform all of the environmental work using staff presented in your most recently approved Statement of Experience and Financial Condition or your firm may use a single subconsulting firm prequalified in **Environmental Reports (Environmental Assessment)** to perform all of the environmental work. The subconsultant's staff must be the same as presented in their most recently approved Statement of Experience and Financial Condition.

Statements of Interest, including resumes of the key people noted above, must be submitted electronically to the Central Bureau of Design and Environment through the Engineering Prequalification and Agreement System (EPAS).



CONSULTING ENGINEERS

MEMORANDUM

To: Robert Kosin, VBH Director of Administration Brian Cecola, VBH Chairman Roads & Bridges

From: Dan Strahan, P.E., CFM Gewalt Hamilton Associates (GHA)

Date: August 22, 2016

Re: IL -62 over Spring Creek- Load Limit Posting

As noted in the attached letter from IDOT, overweight permits will no longer be permitted on IL 62 over Spring Creek due to the condition of the bridge in order to minimize stresses until repairs or replacement can be made. Vehicle loadings must comply with the legal load limits specified in the Illinois Vehicle Code, as summarized in the attached document. As shown, these requirements pertain more specifically to axle weights rather than gross vehicle weight.

As noted in the IDOT letter, preliminary engineering will be initiated for replacement of the bridge. Based on our correspondence with IDOT, this project will be pursued separately from the Phase I engineering project currently on the Bulletin to widen IL 62 to four lanes.

 625 Forest Edge Drive, Vernon Hills, IL 60061

 ministration
 Tel 847.478.9700 = Fax 847.478.9701

www.gha-engineers.com



Maximum Legal **Dimensions & Weights**

On State, Federal & Local Routes

TABLE I: Maximum legal dimensions of motor vehicles D



TIFE OF														
HIGHWAY OR STREET	А	В	С	D	Е	F * 4	G	Н	I	J	К	Single Axle	Tandem Axle * 2	Gross *3
Class I	8'-6"	13'-6"	42'	N.S.	53'	45'-6"	N.S.	N.S.	28'-6"	N.S.	N.S.	20,000	34,000	II
Class II	8'-6"	13'-6"	42'	N.S.	53'	45'-6"	N.S.	N.S.	28'-6"	65'	N.S.	20,000	34,000	II
Class III	8'-6"	13'-6"	42'	65' * 1	53'	42'-6"	55' * 1	60'	N.S.	N.S.	60'	20,000	34,000	Ш
Other State Highway	8'-6"	13'-6"	42'	65' * 1	53'	42'-6"	55' * 1	60'	N.S.	N.S.	60'	20,000	34,000	II
Local Roads & Streets	8'-6"	13'-6"	42'	55'	N.S.	N.S.	N.S.	60'	N.S.	N.S.	60'	20,000	34,000	II
Special Haul Vehicles on all Above Categories	8- 6"	13'-6"	42'	N.S. * 5	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	60'	20,000	34,000	See * 6

N.S. indicates legal dimension not specified.

- Notes:
- 65 feet overall length (bumper to bumper) and/or 55 feet from center of front axle to center of rear axle. *1
- *2 Tandem is defined as any 2 or more single axles whose centers are more than 40 inches and not more than 96 inches apart, measured to the nearest inch between extreme axles.
- *3 See tables II and III.
- *4 Applies on semitrailers longer than 48 feet.
- *5 55' on Local Roads and Streets, 65' from designated State Highway (5 mile access law).
- *6 Gross weight is determined by measuring to the nearest foot between extreme axles. (See Table II)

Exceptions to WIDTH requirements above:

- Does not include certain safety devices approved by Department.
- Width restrictions do not apply to vehicles transporting implements of husbandry operating in the daytime. Loads of hay, straw or other similar farm products are limited to a maximum of 12 feet.
- A recreational vehicle may exceed 8' 6" if the excess width is attributable to appurtenances that extend 6" or less beyond either side of the vehicle body.

Exceptions to LENGTH requirements above:

- Length limits do not apply to vehicles operating in the daytime except on Saturdays, Sundays, or legal holidays when transporting poles, pipes, machinery, or other objects of a structural nature which cannot be readily dismembered, provided the length of the object being transported does not exceed 80 feet and the overall length of vehicle and load does not exceed 100 feet.
- Stinger-steered vehicles specifically designed to transport motor vehicles or boats may have an overall length of 80 feet plus overhang of 4 feet in front and 6 feet in the rear on Class I and II highways.
- Conventional auto transporters are vehicles designed to transport motor vehicles or boats may have an overall length of 65 feet plus overhang on these highways. The maximum overall length on all other streets and highways is 60 feet.

General exceptions to above Table:

- All large vehicles operating on Class I highways shall have access for a distance of one mile on any street or highway to points of loading and unloading, and facilities for food, fuel, rest and repair provided there is no sign prohibiting that access.
- Large vehicles operating on designated state highways shall have access for a distance of 5 highway miles on any other state highway and on designated local streets and highways, to points of loading and unloading, and facilities for food, fuel, rest and repair provided there is no sign prohibiting that access. (This applies only on local streets and highways specifically designated and posted by local officials.)
- Permits may be issued for overdimensional objects and vehicles if they have been reasonably disassembled. Multiple objects loaded side-by-side, end-to-end, or on top of each other may not cause the overdimension.
- Streets or highways are designated by the Department of Transportation or local officials having jurisdiction.

Maps of the designated state truck route system are available at www.gettingaroundillinois.com

TABLE II: Maximum gross weight for vehicles on all highways (unless otherwise posted). Based on federal bridge formula. All special conditions and exceptions are not included on this form.

Maximum load in pounds on any 2 or more consecutive axles

Maximum loading for typical vehicles Vehicle or Combination Maximum Weight - Pounds

Distar	nce	2 axles	3 axles	4 axles	5 axles	6 axles
41	(1)	34 000		1.00000000	0	0
5	Tandem	34,000			Ø	Q
6	- Axle	34 000				
7	Moight	34,000				
8	AABIÂLIC	34,000	34,000			
More	than 8	38,000	42 000			
less u Q	Iau a	39,000	42,500			
10	ň	40,000	43 500			
11		40,000	44 000			
12			45,000	50.000		
12	i i		45,500	50,000		
1/			46,500	50,500		
16			47,000	52,000		
16			47,000	52,000	59.000	
10	, ,		40,000	52,500	50,000	
10			40,500	53,500	56,500	
10	2		49,500	54,000	59,000	
18	2		50,000	54,500	60,000	~~ ~~~
20	1		51,000	55,500	60,500	66,000
21	l.		51,500	56,000	61,000	66,500
22	4		52,500	56,500	61,500	67,000
23	5		53,000	57,500	62,500	68,000
24	ŧ		54,000	58,000	63,000	68,500
25	5		54,500	58,500	63,500	69,000
26	3		55,500	59,500	64,000	69,500
27			56,000	60,000	65,000	70,000
28	3		57,000	60,500	65,500	71,000
29	9		57,500	61,500	66,000	71,500
30)		58,500	62,000	66,500	72,000
31	l,		59,000	62,500	67,500	72,500
32	2		60,000	63,500	68,000	73,000
33	3			64,000	68,500	74,000
34	1			64,500	69,000	74,500
35	5			65,500	70,000	75,000
36	3		ſ	66,000	70,500	75,500
37	7		Exception -	66,500	71,000	76,000
38	3		(3)L	_67.500	71,500	77,000
39	9		V -	68.000	72.000	77.500
40)			68.500	73.000	78.000
41	ĩ.			69,500	73.500	78,500
42	2			70,000	74,000	79,000
43	3			70.500	75.000	80,000
44	1			71,500	75.500	
45	5			72,000	76.000	
48	3			72,500	76.500	
47	7			73,500	77.500	
48	3			74,000	78.000	
40	9			74,500	78 500	
50)			75.500	79 000	
51				76,000	80,000	
50	,			76 500	00,000	
59	2			77 500		
5/	1			78,000		
64				78 600		
50	2			70,000		
50	7			19,000		
5/	0			00,000		





 Axie 1
 20,000

 Axie 2
 20,000

 Axies 3,4
 34,000

 Axies 1,2
 40,000

 Axies 2,3,4
 54,000

 Axies 1,2,3,4
 66,000



Axle 1	20,000
Axles 2,3	34,000
Axles 4,5	34,000
Axles 1,2,3	50,000
Axles 2,3,4,5	68,000
Axles 1,2,3,4,5	80,000



Axle 1	20,000
Axles 2,3	34,000
Axles 4,5,6	42,500
Axles 1,2,3	48,000

Axles 2,3,4,5,6 67,500 Axles 1,2,3,4,5,6 80,000

See Table III
for additional information
on Special Haul Vehicles

Notes:

1 Measured to the nearest foot between the extremes of any group of two or more consecutive axles.

2 Gross weights for 5 and 6 axles applicable only to a combination of vehicles.

3 Two consecutive sets of tandems may carry 34,000 pounds each providing the overall distance between the first and last axles of such consecutive sets of tandems is 36 feet or more.

4 If the distance between the centers of the first and third axles in a group of consecutive axles does not exceed 96 inches, the group is a tandem.

5 Maximum single axle 20,000 pounds; maximum tandem 34,000 pounds.

6 Combinations of vehicles designated as special haul vehicles which include a semitrailer manufactured prior to the model year 2014 and first registered in Illinois prior to January 1, 2015, having five axles with a distance of 42 feet or less between extreme may have a gross weight of 72,000 pounds provided the weight shall not exceed 20,000 pounds on a single axle or 34,000 pounds on a tandem. For such combinations manufactured subsequent to September 9, 1986, the minimum distance between the first and last axles of the two sets of tandems must be 18 feet 6 inches or more.

7 Permits may be issued for an overweight load providing it consists of one object that cannot be reasonably dismantled or disassembled.

TABLE III: Special Axle and Gross Weight Allowances for Special Hauling Vehicles



Designated Truck Route System (Class I,II & III State Highways) and Other State Highways and Local Roads & Streets

- A. 20,000 lbs. on each axle total of 36,000 lbs.
- B. See Table II
- C. See Table II
- D. Gross weight of 72,000 lbs., provided the weight shall not exceed 20,000 lbs. on a single axle or 34,000 lbs. on a tandem.
- E. See Table II
- F. See Note 2 below.

* This requirement does not apply to semitrailers manufactured before September 9, 1986.

Notes:

- 1. Special Hauling Vehicles must meet width, height and length requirements as specified in Table I.
- 2. 3-axle rear discharge truck mixer registered as a Special Hauling Vehicle, used exclusively for the mixing and transportation of concrete in the plastic state, may, when laden, transmit upon the road surface, except when on part of the National System of Interstate and Defense Highways, the following maximum weights: 22,000 pounds on single axle; 40,000 pounds on a tandem axle; 54,000 pounds gross weight on a 3-axle vehicle. This vehicle is not subject to the bridge formula.
- 3. 4-axle concrete mixers are allowed the following maximum weights: 20,000 lbs. on any single axle; 36,000 lbs. on any series of 2 axles greater than 72 inches but not more than 96 inches; and 34,000 lbs. on any series of 2 axles greater than 40 inches but not more than 72 inches.
- 4. 3-axle combination sewer cleaning jetting vacuum trucks registered as a special hauling vehicle, used exclusively for the transportation of non-hazardous solid waste, manufactured before or in the model year of 2014, first registered in Illinois before January 1, 2015, may, when laden, transmit upon the road surface, except when on part of the National System of Interstate and Defense Highways, the following maximum weights: 22,000 pounds on a single axle; 40,000 pounds on a tandem axle; 54,000 pounds gross weight on a 3-axle vehicle. This vehicle is not subject to the bridge formula.

Information on the National System of Interstate and Defense Highways is available at www.fhwa.dot.gov/programadmin/interstate.cfm.

Maps of the designated state truck route system are available at www.gettingaroundillinois.com.



Illinois Department of Transportation

Office of Highways Project Implementation / Region 1 / District 1 201 West Center Court / Schaumburg, Illinois 60196-1096

July 20, 2016

The Honorable Martin J. McLaughlin Village President Village of Barrington Hills 112 Algonquin Road Barrington Hills, IL 60010

Dear Village President McLaughlin:

Legislation concerning overweight vehicle permits passed into law in August, 2004 and January, 2005 (SB2327, HB0720, and HB4458). This legislation amended the Illinois Vehicle Code to provide for long-term permits allowing substantial leeway for trucks to haul a wide range of loads and sizes on a daily basis without specific review of each instance of hauling. These types of permits apply to certain vehicles such as agricultural transport vehicles, raw milk transport vehicles, and towing vehicles, and specify that these vehicles are to abide by the posted bridge weight limits.

As such, this legislation required the Illinois Department of Transportation (Department) to visibly designate structures on the State-maintained highway system that are not adequate to routinely carry the loads allowed by the long-term permits, but are still sufficient to carry trucks within the legal load limits specified in the Illinois Vehicle Code. These laws, in conjunction with the results of recent bridge inspections, will impact a structure on a State maintained highway located in the Village of Barrington Hills in Cook County. We believe it is important to keep you apprised of these changes so that you are aware of the situation should you receive questions from the general public.

We will soon be installing "Legal Loads Only" signs on the structure carrying Illinois Route 62 (Algonquin Road) over Spring Creek (1.4 miles west of Illinois Route 59). Attached for your information is a map that identifies the location of this structure and a detail illustrating the configuration of the signs to be erected. This weight restriction does not imply that the existing structure is unsafe; rather, the load restriction is intended to minimize the stresses on the deteriorated structural elements until such time as corrective measures can be taken.

The Honorable Martin J. McLaughlin July 20, 2016 Page 2

The Department will not be posting a truck detour route, as the amended Illinois Vehicle Code places the responsibility on the driver of the long-term overweight permitted vehicle to adhere to posted weight restrictions and use an alternate route.

Funding for the replacement of this bridge is not currently included in the Department's FY 2017- 2022 Proposed Transportation Improvement Program. However, we will initiate the necessary preliminary engineering and will include the structure in our priorities for future funding consideration among similar improvement needs throughout the region.

It is important to the Department that this information reaches the appropriate local emergency response and law enforcement personnel. We request that the Village of Barrington Hills officials forward this information on to the appropriate individuals to ensure that local authorities impacted by this bridge load posting are aware of the situation. The Department requests that any available local law enforcement forces, in addition to the Illinois State Police, provide adequate surveillance to the bridge site in order to ensure compliance with the posted weight limit.

If you have any questions or need additional information, please contact me or Ms. Marnie Hooghkirk, Area Programmer, at (847) 705-4075.

Very truly yours,

Tortmann Son John Fortmann, P.E.

Region One Engineer





Memo

То:	Bryan Cecola, Chairman Roads & Bridges
From:	Robert Kosin
cc:	Dan Strahan
Date:	August 22, 2016
Re:	US Board of Geographical Names Commemorative Application

A recommendation is presented to file a naming commemoration application of the Cuba Road bridge over Flint Creek with the US Board of Geographical Names so as to record the name of Veterans' Crossing Bridge into the public record. If recommendation is received by the Roads & Bridges Committee than the BOT would consider 8/29 a resolution similar in content as found in the attached.

The United States Board on Geographic Names (BGN) is a federal body within the United States Geological Survey, an agency of the Department of the Interior. The purpose of the Board is to establish and maintain uniform usage of geographic names throughout the information retain by the federal government.

The Village has previously participate in this program with the US Geological Survey by registering certain elevation reference points and the quadrangle mapping up dates.

[113th Congress Public Law 18][From the U.S. Government Printing Office][[Page 127 STAT. 484]]Public Law 113-18113th Congress

An Act

To designate the new Interstate Route 70 bridge over the Mississippi

River connecting St. Louis, Missouri, and southwestern Illinois as the

``Stan Musial Veterans Memorial Bridge''.

<<NOTE: July 12, 2013 - [H.R. 2383]>>

Be it enacted by the Senate and House of Representatives of the

United States of America in Congress assembled,

SECTION 1. STAN MUSIAL VETERANS MEMORIAL BRIDGE.

(a) Designation.--The new Interstate Route 70 bridge over the
 Mississippi River that connects St. Louis, Missouri, to southwestern
 Illinois shall be known and designated as the ``Stan Musial Veterans
 Memorial Bridge''.

(b) References.--Any reference in a law, map, regulation, document, paper, or other record of the United States to the bridge referred to in subsection (a) shall be deemed to be a reference to the ``Stan Musial

Veterans Memorial Bridge".

Approved July 12, 2013.

LEGISLATIVE HISTORY -- H.R. 2383:

CONGRESSIONAL RECORD, Vol. 159 (2013):

June 25, considered and passed House. June 27, considered and passed Senate.

Memo

To:	Bryan Cecola, Chairman Roads & Bridges
From:	Robert Kosin
cc:	Dan Strahan
Date:	August 22, 2016
Re:	Cuba Road Bridge GL Bridge Restoration Treasurer's Report 7/2016

The funding method used for the Veterans' Crossing was the creation of a deposit fund in the Roads & Bridges Fund. Monies for this fund were derived from the Roads & Bridge levy as well as revenues received from the FAU IDOT Local Bridge Replacement Program.

With the completion of the Bridge, the practice would be to close the account. However there are other Bridges that in the future the Village will need to undertake either repair or replacement. For example the Green Rail Bridge which is Oak Knoll Road over Flint Creek is nearly thirty years old or at an age when replacement plans began for Veterans' Crossing.

The Proposal is to recommend to the Finance Committee to retain the Fund and continue the savings as budgetary appropriate for the other bridges on Village maintained roads. If acceptable the title purpose change would begin in Fiscal Year 2017.

RESOLUTION ESTABLISHING THE CUBA ROAD BRIDGE FUND

WHEREAS, the Village of Barrington Hills (the "Village") maintains a certain bridge over Flint Creek along Cuba Road within the boundaries of the Village (the "Cuba Road Bridge"); and

WHEREAS, the Cuba Road Bridge will need to be replaced or reconstructed within several years at significant expense to the Village; and

WHEREAS, pursuant to the Illinois constitution, a home rule unit may exercise any power and perform any function pertaining to its government and affairs including, but not limited to, the power to regulate for the protection of the public health, safety, morals and welfare; to license; to tax; and to incur debt (ILCS Const. Art. 7 § 6); and

WHEREAS, the Village desires to establish a special Village fund to be called "The Cuba Road Bridge Fund", to accumulate funds from the Village tax levy and such other sources as the Board of Trustees of the Village shall deem appropriate from time to time; and

WHEREAS, the Village Board of Trustees desires that any funds held in The Cuba Road Bridge Fund shall be used solely for the repair, replacement and reconstruction of the Cuba Road Bridge.

NOW, THEREFORE BE IT RESOLVED by the President and the Board of Trustees of the Village of Barrington Hills, Cook, Kane, Lake, and McHenry Counties, Illinois, as a home rule municipality the following:

<u>Section One</u> The Village Treasurer is hereby directed to establish on the books of the Village a special fund to be known as "The Cuba Road Bridge Fund".

<u>Section Two</u> The Village Treasurer is directed to note that the use of the funds to be deposited in The Cuba Road Bridge Fund from time to time upon the resolution or ordinance of the Board of Trustees duly adopted shall be used solely for the repair, replacement and reconstruction of the Cuba Road Bridge.

Section Three If any part or provision of this Resolution shall be held or deemed to be invalid, such invalidity shall not have the affect of rendering another part or provision of this Resolution invalid.

<u>Section Four</u> This Resolution shall be in full force and affect from and after its passage and approval as provided by law.

APPROVED THIS	28th	day of Marc	h, 2011.
AYES:	7	; NAYS:;	; ABSENT: 0
x			Village President
ATTEST:	21		
Dolors G	P. JL	andel	

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CONSULTING ENGINEERS

MEMORANDUM

To: Robert Kosin, VBH Director of Administration Brian Cecola, VBH Chairman Roads & Bridges

From: Dan Strahan, P.E., CFM Gewalt Hamilton Associates (GHA)

Date: August 22, 2016

Re: Bridge Restoration Account

625 Forest Edge Drive, Vernon Hills, IL 60061

Tel 847.478.9700 • Fax 847.478.9701

www.gha-engineers.com

Several years ago a line item was created in the Roads & Bridges account titled, "Cuba Road Bridge Restoral Expense". The intent of this item was to allow for annual contributions in advance of the bridge replacement, so that the cost of replacing the bridge would not be a burden to the budget of a single fiscal year.

With the completion of Veterans' Crossing in 2016, it has been suggested that this line item continue to be used in a similar manner, though retitled so it can be used more widely for other future bridge repair and replacement projects. Such an account would then be available for any of the bridge or large culvert crossings throughout the Village. Below is a list of bridges and significant culvert crossings for which the line item would be utilized:

- Green Rail Bridge (Oak Knoll Road, constructed in 1988)
- Porter Bridge (Oak Knoll Road, constructed c. 1920)
- Spring Creek Culverts (Spring Creek Road, construction date unknown)
- Veterans Crossing (2016)
- Old Hart Road Bridge (Constructed c. 1920, repaired in 2015)
- Rock Ridge Road over Spring Creek (Constructed 1978)
- Algonquin Road Culvert (Constructed 2008)