

Old McHenry Road – Abbey Glenn Drive to Bonnie Lane (2.1 miles)
Quentin Road – IL Route 22 to Old McHenry Road (1.5 miles)
Phase I Preliminary Engineering – Supplement #3
Section No. 19-00999-65-ES
August 14, 2024

EXHIBIT A – DRAFT SCOPE OF ENGINEERING SERVICES

Supplement #3 is being submitted to compensate for additional level of effort to complete portions of the Phase I engineering. The supplement also includes additional effort from Christopher B. Burke Engineering, Ltd. (CBBEL) and Guarino Historic Resources Documentation.

This supplement includes the following items:

- Phase I Items
 - Section 4(f) de minimis documentation revisions related to FHWA and Village of Hawthorn Woods comments/concerns for Three Corners Park and Community Park and associated design evaluations for impact minimization
 - Water quality analysis modifications for Forest Lake based on drainage/detention design changes at/near Burnett Park related to FHWA/Village concerns
 - Historic Property Inventory, Assessment of Effect, Section 106 Documentation, and Section 4(f) Documentation
 - Design analysis for avoidance alternatives to reach no adverse effect to historic properties (Burnett Farm, Hubbard School, St. Matthews Cemetery).
 - Safety analysis
 - Retaining wall type studies for the retaining wall on east side of Midlothian Road between March Street and Old McHenry Road
 - Additional IDOT and FHWA coordination to gain environmental and design approvals
 - Additional stakeholder outreach related to the final public information meeting and 4(f) coordination with the Village of Hawthorn Woods, extra level of effort for ROW acquisition coordination for 157 properties and extra level of effort for SIG meetings 3.1/3.2 & 4
 - Expanded scope of the Project Development Report
 - Project management and QC/QA activities

The following is a detailed summary of the items that are included in this scope of services:

5. Environmental Data Collection, Coordination, and Analysis

Specific work associated with Task 5 includes the following:

H. Determine Comprehensive Impacts and Measures to Minimize Harm (Water Quality Analysis)

An additional level of effort was required to complete the water quality analysis to incorporate the final drainage design. Following substantial completion of the water quality report, a drainage design change and stormwater diversion was required due to FHWA concerns of proposed detention within Three Corners Park. The Water Quality Report has been completed and has determined that the proposed improvement with use of water quality BMPs will not increase the total phosphorus loadings at Forest Lake from existing conditions.

I. Section 4(f)

An additional level of effort was required for the Section 4(f) documentation for Community Park and Three Corners Park, to address FHWA and Village design comments and impact concerns. Design changes were made and use of both parks has been determined by FHWA to have a *de minimis* impact.

K. Cultural Resource Evaluation - Section 106/Section 4(f) Coordination (APE/HPI/AOE Evaluation)

An additional level of effort was required to complete the Historic Property Inventory, Assessment of Effect and associated documentation. A total of 109 resources were evaluated within the Area of Potential Effect with four resources that warranted individual NHPR consideration, one resource that warranted consideration as a site, and one resources that warranted NHPR consideration as a district.

A no adverse effect finding was determined for all proposed uses of historic properties by the project team's architectural historian. Comments were received from IDOT Cultural Resources Unit (CRU) with modifications to HPI for St. Matthews Church and concern about potential adverse effect to Hubbard School Site and Leo Burnett Farm. An additional level of investigation will be required by the project team architectural historian, Guarino Historic Resources Documentation to address comments and concerns from IDOT CRU. Additional exhibit preparation, design evaluations, documentation, and coordination will be required to try and achieve a no adverse effect finding for Hubbard School, Leo Burnett Farm, and St. Matthews cemetery. If design modifications are not successful in obtaining a no adverse effect funding, an

Individual Section 4(f) report would need to be prepared along with the formal Section 106 documentation. An avoidance alternative of

6. Drainage Studies

Specific work associated with Task 6 includes the following:

- H. Proposed drainage plan updates along Old McHenry Road to accommodate changes to the multi-use path location west of Fairfield Road due to impacts to historic properties.

8. Safety Analysis

Specific work associated with Task 8 includes the following:

- C. Additional effort is required to update the crash summary tables, collision diagrams and identify crash patterns with the most recent 5-year crash history data. The current analysis is based on data obtained from LCDOT between 2015-2019. Crash data will be obtained from LCDOT for years 2020-2022 and will be used to refresh the crash analysis to be incorporated into the Project Development Report.

9. Alternative Analysis

Specific work associated with Task 9 includes the following:

- D. Complete a full evaluation of adding a multi-use path from Abbey Glenn Drive to Fairfield Road and consider that this path would be on either the north side or the south side of the road. This task would include horizontal and vertical geometry and cross section evaluation, preparation of a comparison memo to present both alternatives and a recommendation. This will also include the relevant updates to the plan and profile sheets, quantities, cost estimate, and Project Development Report. Revised property acquisition exhibits would be prepared and sent certified mail to property owners with changes from what was shown at PIM #3 and would be performed un Task 15E.

12. Structural Design

Specific work associated with Task 12 includes evaluating the need for and type of retaining wall in the following locations to minimize property impacts adjacent to multi-use path:

B. Wall Type Studies

14. Midlothian Road Northbound Retaining Wall between March Street and Old McHenry Road – 335’ long

14. Agency Coordination

An additional level of effort is required for coordination with IDOT and FHWA to obtain all necessary approvals to complete Phase I Engineering. This coordination includes additional meetings, coordination, and memorandums related to obtaining approval for various design, environmental and public engagement components.

15. Public Involvement

Specific work associated with Task 15 includes the following:

B. Project Stakeholder Meetings

The original contract and supplement #2 assumed 32 project stakeholder meetings and all 32 have been completed as of May 1, 2024. It is assumed that a total of 24 additional meetings (62 total meetings) will be completed through the end of the Phase 1 contract. These 24 meetings are related to coordination with Hawthorn Woods for the 4(f) properties, required one on one meetings in advanced of the Public Information Meeting, property owner meetings, and other upcoming municipal or other stakeholder meetings.

D. Stakeholder Involvement Group

An additional level of effort was required by CBBEL for SIG meetings #3.1/#3.2 and SIG meeting #4. SIG meeting #3 was split into two parts on two different dates to allow more time to present alternatives and accommodate questions and discussions from the SIG. The first meeting focused on Old McHenry Road alternatives and the second meeting displayed Quentin Road alternatives. The level of effort for these meetings expanded as 8 additional alternatives were presented at SIG #3. An extra level of effort was required for SIG #4 related to preparation of finalist alternatives materials and associated supporting exhibits/graphics/slides.

E. Public Meetings/Hearings

Based on recent coordination with IDOT and FHWA, the project will complete a final public information meeting in an open house format. Since there are 4 displacements and 153 other properties with land acquisition, additional hours are needed to plan and conduct the public information meeting, and respond to comments.

- a. Submittal of introductory letters and unique property right-of-way exhibits to 157 unique properties.

- b. Revised property acquisition exhibits would be prepared for approximately 35 parcels that would be affected by a change to the multi-use path design.
- c. Public Information Meeting – A fourth Public Information Meeting (PIM) would be held to inform and obtain input from the public for proposed use and effects to historic properties. Comments received would be included in the Section 106 and Section 4(f) documents respectively. The meeting would be held in an open house format similar to other Public Information Meetings.

21. Project Development Report (PDR)

Due to the size and complexity of the project, additional efforts were needed to complete the Project Development Report.

Each written section of the PDR required separate sections describing the multiple roadway segments that are included in the project. Written description and cost estimate breakdowns of the Project Implementation Plan required additional efforts. More than 80 attachments were prepared to include as supporting documentation to the PDR text including maps, exhibits, summary tables, meeting minutes and other correspondence. 100 individual Design Variances were prepared which required additional design analysis and IDOT coordination.

23. Project Management and Administration

The original contract and supplement #2 assumed that the project would be completed by June 2024. With this supplement it is assumed that the project will extend into 2025 and be completed by June 2025. Additional project management related tasks will be extended for 9 additional months to cover the timeframe of the project.

24. QA/QC

- B. QA/QC reviews will be performed on additional design tasks contained in this supplement in accordance with TranSystems' Quality Process prior to all major submittals

EXHIBIT B
MANHOUR BREAKDOWN

Old McHenry Road - Abbey Glenn Drive to Bonnie Lane
 Quentin Road - IL Route 22 to Old McHenry Road
 Phase I Preliminary Engineering (Supplement #3)
 EXHIBIT B - Workhour Breakdown

<u>Task and Description</u>		<u>Total Workhours</u>	<u>TS</u>	<u>CBBEL</u>	<u>Wang</u>	<u>Teska</u>	<u>Mackie</u>	<u>HBK</u>	<u>GHA</u>	<u>Guarino</u>
Task 5 - Environmental Data Collection, Coordination & Analysis										
5h	Determine comprehensive impacts and measure to minimize harm	164	34	130						
5i	Additional Level-of-Effort for Three Corners Park and Community Park Section 4(f) evaluations	198	54	144						
5k	Cultural resource evaluation - Section 106/Section 4(f) coordination									
	1. An additional level of effort for completing Cultural Resource Evaluation Assessment of Effect for a total of 109 historic resources to be reviewed, documented, and assessed.	208	8	200						
	2. Cultural Resource Evaluation (Section 106 - Adverse Effect to NRHP eligible property). 2 properties assumed.	140		140						
	3. Cultural Resource Evaluation (Section 4(f) - Use of NRHP eligible property). 2 properties assumed.	180		180						
	Task 5 Subtotal:	890	96	794	-	-	-	-	-	-
Task 6 - Drainage Studies										
6b	Proposed drainage plan									
	2. Proposed Drainage Plan Sheets (MUP Path Change West of Fairfield)	56		56						
	Task 6 Subtotal:	56	-	56	-	-	-	-	-	-
Task 8 - Safety Analysis										
8c	Refresh safety analysis with latest 5-year period crash data available (original studies 2015-2019; update to include 2020-2022)	144	144							
	Task 8 Subtotal:	144	144	-	-	-	-	-	-	-
Task 9 - Alternative Analysis										
9d	Multi-Use Path Evaluation (Abbey Glenn Drive to Fairfield Road)									
	1. Alternatives analysis to evaluate a multi-use path on both the north and south sides of Old McHenry Road.		36	12						
	2. Complete horizontal, vertical geometric studies and cross section evaluation.		84	24						
	3. Prepare comparison memo with presentation of recommended alternative.		20							
	4. Assess drainage impacts with both alternatives and evaluate cost differences			32						
	5. Complete updates to project plan and profile sheets and Intersection Design Studies to include multi-use path.		40							
	6. Evaluate cost differences between the two alternatives and incorporate recommended alternative into the final cost estimate.		32							
	7. Revise Project Development Report to include recommended alternative.		28							
	Task 9 Subtotal:	308	240	68	-	-	-	-	-	-

Old McHenry Road - Abbey Glenn Drive to Bonnie Lane
 Quentin Road - IL Route 22 to Old McHenry Road
 Phase I Preliminary Engineering (Supplement #3)
 EXHIBIT B - Workhour Breakdown

<u>Task and Description</u>		Total Workhours	TS	CBBEL	Wang	Teska	Mackie	HBK	GHA	Guarino
Task 12 - Structural Design										
12b	Retaining walls along Old McHenry Road Includes: Wall type study, prepare TS&L plans & BLR Form 10210)									
	14. Midlothian northbound Retaining Wall between March St. and Old McHenry Rd - 335' long	86	86							
	Task 12 Subtotal:	86	86	-	-	-	-	-	-	-
Task 14 - Agency Coordination										
14a	FHWA / IDOT coordination meetings									
	3. General IDOT coordination (16 hours/month * 18 months)	252	144	108						
	Task 14 Subtotal:	252	144	108	-	-	-	-	-	-
Task 15 - Public Involvement										
15b	Project stakeholder meetings and coordination (32 meetings)	-								
	b. additional 24 meetings with various stakeholders		288	108						
15d	Stakeholder Involvement Group (SIG) meetings (five)									
	4. Meeting 4 Additional Level of Effort with Level II Alternatives Preparation	52		52						
	7. Scope and amount of material covered for Meeting 3 was expanded due to the increased number of alternatives. Additional hours needed for exhibit preparation and summary tables			80						
15e	Public meetings (conducted as in person and virtual)									
	3. Meeting 3 (Final) - Additional Level of Effort for property acquisition exhibits preparation & Owner Coordination for 157 properties	96	24	72						
	4. Property acquisition exhibits for 35 parcels for changes to the multi-use path design			34						
15i	Public Information Meeting #4 - Historic Properties		104	104						
	Task 15 Subtotal:	866	416	450	-	-	-	-	-	-

Old McHenry Road - Abbey Glenn Drive to Bonnie Lane
 Quentin Road - IL Route 22 to Old McHenry Road
 Phase I Preliminary Engineering (Supplement #3)
 EXHIBIT B - Workhour Breakdown

<u>Task and Description</u>		Total Workhours	TS	CBBEL	Wang	Teska	Mackie	HBK	GHA	Guarino
Task 21 - Project Development Report (PDR)										
21a	Compile maps, charts, graphs and exhibits	85	85							
21b	Prepare preliminary report and submit to LCDOT and IDOT for initial review	64	64							
21c	Prepare revised report, with disposition of comments and resubmit and forward to FHWA for review and concurrence to proceed to PIM	36	36							
21d	Prepare revised report (post PIM), with disposition of comments and resubmit	24	24							
21e	Prepare final report, with disposition of comments and resubmit to LCDOT, IDOT & FHWA for final review and issuance of Phase I Design Approval	16	16							
Task 21 Subtotal:		225	225	-	-	-	-	-	-	-
Task 23 - Project Management and Administration										
23a	Prepare and submit monthly progress reports	102	54	48						
23b	Project scheduling and management, administration, budget control, internal team meetings	214	110	104						
23c	Project meetings with LCDOT staff (every other week)	160	80	80						
Task 23 Subtotal:		476	244	232	-	-	-	-	-	-
Task 24 - QA/QC										
24a	Quality management plan (QMP)	-								
24b	QA/QC reviews in accordance with quality process and QMP									
	1. Report Submittals	48	24	24						
	2. Design Calculations	16	8	8						
	3. Plan Submittals	-								
	4. Audits	-								
Task 24 Subtotal:		64	32	32	-	-	-	-	-	-
Total:		3,367	1,627	1,740	-	-	-	-	-	-

EXHIBIT C
COST ESTIMATE OF CONSULTANT SERVICES



EXHIBIT E
 COST ESTIMATE OF CONSULTANT SERVICES WORKSHEET
 FIXED RAISE

Local Public Agency Lake County Division of Transportation	County Lake	Section Number 19-00999-65-ES
Consultant (Firm) Name TranSystems	Prepared By MJS	Date 8/14/2024

PAYROLL ESCALATION TABLE

CONTRACT TERM	18	MONTHS	OVERHEAD RATE	148.69%
START DATE	9/1/2024		COMPLEXITY FACTOR	
RAISE DATE	4/1/2025		% OF RAISE	2.00%
END DATE	2/28/2026			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	9/1/2024	4/1/2025	7	38.89%
1	4/2/2025	3/1/2026	11	62.33%

The total escalation = 1.22%

Local Public Agency	County	Section Number
Lake County Division of Transp	Lake	19-00999-65-ES

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	1.22%

PAYROLL RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Engineer 5 (E5)	\$78.00	\$78.95
Engineer 4 (E4)	\$77.66	\$78.61
Engineer 3 (E3)	\$65.96	\$66.77
Engineer 2 (E2)	\$48.42	\$49.01
Engineer 1 (E1)	\$36.04	\$36.48
Environmental Scientist 4 (SC4)	\$78.00	\$78.95
Technician 3 (T3)	\$38.67	\$39.14
Technician 1 (T1)	\$20.65	\$20.90
Administrative 3 (A3)	\$55.27	\$55.95
Administrative 2 (A2)	\$37.40	\$37.86
Administrative 1 (A1)	\$26.59	\$26.91

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00999-65-ES

COST ESTIMATE WORKSHEET

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

OVERHEAD RATE 148.69%

COMPLEXITY FACTOR 0

Table with 9 columns: TASK, STAFF HOURS, PAYROLL, OVERHEAD & FRINGE BENEFITS, DIRECT COSTS, FIXED FEE, SERVICES BY OTHERS, TOTAL, % OF GRAND TOTAL. Includes tasks like Environmental Data Collection, Safety, Alternative Analysis, etc., and a Totals row.

237,271

The subconsultant fee has been adjusted due to 15% fixed fee cap.

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00999-65-ES

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultants Services Worksheet Fixed Raise

SHEET 1 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			5. Environmental Data Collection			8. Safety			9. Alternative Analysis			12. Structural Design			14. Agency Coordination		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Engineer 5 (E5)	78.95	184.0	11.31%	8.93	4	4.17%	3.29				10	4.17%	3.29	6	6.98%	5.51	24	16.67%	13.16
Engineer 4 (E4)	78.61	205.0	12.60%	9.90	16	16.67%	13.10	8	5.56%	4.37	32	13.33%	10.48				36	25.00%	19.65
Engineer 3 (E3)	66.77	494.0	30.36%	20.27	48	50.00%	33.38	14	9.72%	6.49	46	19.17%	12.80	60	69.77%	46.58	48	33.33%	22.26
Engineer 2 (E2)	49.01	356.0	21.88%	10.72	18	18.75%	9.19	70	48.61%	23.83	82	34.17%	16.75				36	25.00%	12.25
Engineer 1 (E1)	36.48	290.0	17.82%	6.50	10	10.42%	3.80	52	36.11%	13.17	34	14.17%	5.17	20	23.26%	8.48			
Environmental Scientist 4 (E4)	78.95	0.0																	
Technician 3 (T3)	39.14	36.0	2.21%	0.87							36	15.00%	5.87						
Technician 1 (T1)	20.90	0.0																	
Administrative 3 (A3)	55.95	0.0																	
Administrative 2 (A2)	37.86	62.0	3.81%	1.44															
Administrative 1 (A1)	26.91	0.0																	
		0.0																	
		0.0																	
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TOTALS		1627.0	100%	\$58.64	96.0	100.00%	\$62.76	144.0	100%	\$47.86	240.0	100%	\$54.35	86.0	100%	\$60.57	144.0	100%	\$67.32

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00999-65-ES

AVERAGE HOURLY PROJECT RATES

Exhibit E Cost Estimate of Consultant Services Worksheet Fixed Raise

SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	15. Public Involvement			21. Project Development Report			23. Project Management and Administration			24. QA/QC			Direct Costs					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Engineer 5 (E5)	78.95	28	6.73%	5.31	12	5.33%	4.21	84	34.43%	27.18	16	50.00%	39.48						
Engineer 4 (E4)	78.61	75	18.03%	14.17	38	16.89%	13.28												
Engineer 3 (E3)	66.77	106	25.48%	17.01	58	25.78%	17.21	98	40.16%	26.82	16	50.00%	33.38						
Engineer 2 (E2)	49.01	92	22.12%	10.84	58	25.78%	12.63												
Engineer 1 (E1)	36.48	115	27.64%	10.08	59	26.22%	9.57												
Environmental Scientist 4 (SC)	78.95																		
Technician 3 (T3)	39.14																		
Technician 1 (T1)	20.90																		
Administrative 3 (A3)	55.95																		
Administrative 2 (A2)	37.86							62	25.41%	9.62									
Administrative 1 (A1)	26.91																		
TOTALS		416.0	100%	\$57.42	225.0	100%	\$56.90	244.0	100%	\$63.62	32.0	100%	\$72.86	0.0	0%	\$0.00	0.0	0%	\$0.00

COMPANY NAME: TranSystems
PTB NUMBER: Old McHenry Road and Quentin Road Phase I (CO #3)
TODAY'S DATE: 8/14/2024

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	X	500	\$0.560	\$280.00
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day			\$0.00	\$0.00
Vehicle Rental	Actual cost (Up to \$55/day)			\$0.00	\$0.00
Tolls	Actual cost			\$1.50	\$0.00
Parking	Actual cost			\$0.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)	X	30	\$25.00	\$750.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			\$1,500.00	\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			\$2,500.00	\$0.00
Recording Fees	Actual cost			\$0.00	\$0.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost			\$0.00	\$0.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$0.00
Equipment and/or Specialized Equipment Rental*	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Intersection Turning Movement Counts (GHA)					\$0.00
Streetlight Traffic Information					\$0.00
Postage for Public Meetings					\$0.00
Printing - B/W		X	500	\$0.15	\$75.00
Printing - Color		X	250	\$1.50	\$375.00
Printing - Public meeting boards		X	100	\$12.00	\$1,200.00
				\$0.00	\$0.00
				\$0.00	\$0.00
TOTAL DIRECT COST					\$2,680.00

*If other allowable costs are needed and not listed, please add in the above spaces provided.

LEGEND

W.O. = Work Order

J.S. = Job Specific

EXHIBIT D
WORK HOUR AND FEE SUMMARY

**Old McHenry Road - Abbey Glenn Drive to Bonnie Lane
 Quentin Road - IL Route 22 to Old McHenry Road
 Phase I Preliminary Engineering (Supplement #3)
 EXHIBIT D - Workhour & Fee Summary**

Task	Description	Total Workhours	Total Fee	TS	CBBEL	Guarino	% of Project
Task 5	Environmental Data Collection, Coordination & Analysis	890	\$151,097	\$16,972	\$114,925	\$19,200	27.41%
Task 6	Drainage Studies	56	\$6,821	\$0	\$6,821		1.24%
Task 8	Safety Analysis	144	\$19,412	\$19,412	\$0		3.52%
Task 9	Alternative Analysis	308	\$45,212	\$36,746	\$8,466		8.20%
Task 12	Structural Design	86	\$14,674	\$14,674	\$0		2.66%
Task 14	Agency Coordination	252	\$44,751	\$27,307	\$17,444		8.12%
Task 15	Public Involvement	866	\$130,940	\$67,290	\$63,650		23.76%
Task 21	Project Development Report (PDR)	225	\$36,062	\$36,062	\$0		6.54%
Task 23	Project Management and Administration	476	\$80,771	\$43,724	\$37,047		14.65%
Task 24	QA/QC	64	\$12,670	\$6,568	\$6,102		2.30%
	Subconsultant DL		\$4,106	\$4,106			0.74%
	Direct Costs		\$4,690	\$2,680	\$2,010		0.85%
Total:		3,367	\$551,206	\$275,541	\$256,465	\$19,200	100%

EXHIBIT E
COST ESTIMATE OF SUBCONSULTANT SERVICES

Christopher B. Burke Engineering, Ltd. (CBBEL)



Local Public Agency Lake County Division of Transportation	County Lake	Section Number 19-00099-65-ES
Prime Consultant (Firm) Name Christopher B. Burke Engineering, Ltd.	Prepared By Matthew Huffman	Date 8/14/2024
Consultant / Subconsultant Name Christopher B. Burke Engineering, Ltd.	Job Number 	

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

Remarks

Phase I Engineering - Change Order #3

PAYROLL ESCALATION TABLE

CONTRACT TERM	9	MONTHS			OVERHEAD RATE	132.88%
START DATE	6/1/2024				COMPLEXITY FACTOR	
RAISE DATE	1/1/2025				% OF RAISE	2.00%
END DATE	2/28/2025					

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	6/1/2024	1/1/2025	7	77.78%
1	1/2/2025	3/1/2025	2	22.67%

Local Public Agency

County

Section Number

Lake County Division of Transportation

Lake

19-00099-65-ES

Consultant / Subconsultant Name

Job Number

Christopher B. Burke Engineering, Ltd.

PAYROLL RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	0.44%

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Engineer VI	\$82.63	\$83.00
Engineer V	\$72.59	\$72.91
Engineer IV	\$59.41	\$59.67
Engineer III	\$46.80	\$47.01
Engineer I/II	\$36.22	\$36.38
Survey V	\$85.04	\$85.42
Survey IV	\$76.25	\$76.59
Survey III	\$66.63	\$66.93
Survey II	\$54.50	\$54.74
Survey I	\$38.75	\$38.92
Engineering Technician V	\$68.90	\$69.21
Engineering Technician IV	\$64.03	\$64.31
Engineering Technician III	\$42.86	\$43.05
Engineering Technician I/II	\$30.00	\$30.13
CAD Manager	\$70.83	\$71.14
CAD Technician II	\$53.29	\$53.53
GIS Specialist III	\$58.00	\$58.26
Landscape Architect	\$65.00	\$65.29
Landscape Designer III	\$40.50	\$40.68
Environmental Resource Specialist V	\$76.01	\$76.35
Environmental Resource Specialist IV	\$60.78	\$61.05
Environmental Resource Specialist III	\$52.75	\$52.98
Environmental Resource Specialist I/II	\$30.92	\$31.06
Environmental Resource Technician	\$45.30	\$45.50
Engineering Intern	\$18.88	\$18.96
Business Operations Department	\$57.69	\$57.95

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00099-65-ES

Consultant / Subconsultant Name

Christopher B. Burke Engineering, Ltd.

Job Number

DIRECT COSTS WORKSHEET

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.
EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

ITEM	ALLOWABLE	QUANTITY	CONTRACT RATE	TOTAL
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost (Up to state rate maximum)			\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	3000	\$0.67	\$2,010.00
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day			\$0.00
Vehicle Rental	Actual Cost (Up to \$55/day)			\$0.00
Tolls	Actual Cost			\$0.00
Parking	Actual Cost			\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00
Shift Differential	Actual Cost (Based on firm's policy)			\$0.00
Overnight Delivery/Postage/Courier Service	Actual Cost (Submit supporting documentation)			\$0.00
Copies of Deliverables/Mylars (In-house)	Actual Cost (Submit supporting documentation)			\$0.00
Copies of Deliverables/Mylars (Outside)	Actual Cost (Submit supporting documentation)			\$0.00
Project Specific Insurance	Actual Cost			\$0.00
Monuments (Permanent)	Actual Cost			\$0.00
Photo Processing	Actual Cost			\$0.00
2-Way Radio (Survey or Phase III Only)	Actual Cost			\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual Cost			\$0.00
CADD	Actual Cost (Max \$15/hour)			\$0.00
Web Site	Actual Cost (Submit supporting documentation)			\$0.00
Advertisements	Actual Cost (Submit supporting documentation)			\$0.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)			\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)			\$0.00
Recording Fees	Actual Cost			\$0.00
Transcriptions (specific to project)	Actual Cost			\$0.00
Courthouse Fees	Actual Cost			\$0.00
Storm Sewer Cleaning and Televising	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Traffic Control and Protection	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Utlility Exploratory Trenching	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Testing of Soil Samples	Actual Cost			\$0.00
Lab Services	Actual Cost (Provide breakdown of each cost)			\$0.00
Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Title Reports				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00

TOTAL DIRECT COSTS: \$2,010.00

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00099-65-ES

Consultant / Subconsultant Name

Christopher B. Burke Engineering, Ltd.

Job Number

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE 132.88%

COMPLEXITY FACTOR 0

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
5. Environmental Analysis	500	794	43,224	57,437	14,264		114,925	44.81%
6. Drainage Studies		56	2,565	3,409	847		6,821	2.66%
9. Alternatives Analysis		68	3,184	4,231	1,051		8,466	3.30%
14. Agency Coordination	510	108	6,561	8,718	2,165		17,444	6.80%
15. Public Involvement	1,000	450	23,939	31,811	7,900		63,650	24.82%
23. Project Management and Admin.		232	13,934	18,515	4,598		37,047	14.45%
24. QA/QC		32	2,295	3,050	757		6,102	2.38%
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Subconsultant DL							\$0.00	
Direct Costs Total ==>	\$2,010.00						\$2,010.00	0.78%
TOTALS		1740	95,702	127,171	31,582	-	256,465	100.00%

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00099-65-ES

Consultant / Subconsultant Name

Christopher B. Burke Engineering, Ltd.

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			5. Environmental Analysis			6. Drainage Studies			9. Alternatives Analysis			14. Agency Coordination			15. Public Involvement		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Engineer VI	83.00	58.0	3.33%	2.77	12	1.51%	1.25							10	9.26%	7.68	16	3.56%	2.95
Engineer V	72.91	150.0	8.62%	6.29	28	3.53%	2.57	4	7.14%	5.21	4	5.88%	4.29	16	14.81%	10.80	32	7.11%	5.18
Engineer IV	59.67	228.0	13.10%	7.82	66	8.31%	4.96	10	17.86%	10.66	16	23.53%	14.04	16	14.81%	8.84	80	17.78%	10.61
Engineer III	47.01	264.0	15.17%	7.13	80	10.08%	4.74	14	25.00%	11.75	18	26.47%	12.44	16	14.81%	6.96	104	23.11%	10.86
Engineer I/II	36.38	288.0	16.55%	6.02	64	8.06%	2.93	28	50.00%	18.19	30	44.12%	16.05	14	12.96%	4.72	104	23.11%	8.41
Survey V	85.42	0.0																	
Survey IV	76.59	0.0																	
Survey III	66.93	0.0																	
Survey II	54.74	0.0																	
Survey I	38.92	0.0																	
Engineering Technician V	69.21	0.0																	
Engineering Technician IV	64.31	0.0																	
Engineering Technician III	43.05	0.0																	
Engineering Technician I/II	30.13	0.0																	
CAD Manager	71.14	0.0																	
CAD Technician II	53.53	0.0																	
GIS Specialist III	58.26	144.0	8.28%	4.82	72	9.07%	5.28							12	11.11%	6.47	48	10.67%	6.21
Landscape Architect	65.29	12.0	0.69%	0.45													12	2.67%	1.74
Landscape Designer III	40.68	10.0	0.57%	0.23													10	2.22%	0.90
Environmental Resource Specialist	76.35	190.0	10.92%	8.34	116	14.61%	11.15							12	11.11%	8.48	22	4.89%	3.73
Environmental Resource Specialist	61.05	114.0	6.55%	4.00	96	12.09%	7.38							12	11.11%	6.78			
Environmental Resource Specialist	52.98	114.0	6.55%	3.47	92	11.59%	6.14										22	4.89%	2.59
Environmental Resource Specialist	31.06	88.0	5.06%	1.57	88	11.08%	3.44												
Environmental Resource Technician	45.50	80.0	4.60%	2.09	80	10.08%	4.58												
Engineering Intern	18.96	0.0																	
Business Operations Department	57.95	0.0																	
		0.0																	
TOTALS		1740.0	100%	\$55.00	794.0	100.00%	\$54.44	56.0	100%	\$45.81	68.0	100%	\$46.82	108.0	100%	\$60.75	450.0	100%	\$53.20

Local Public Agency

Lake County Division of Transportation

Consultant / Subconsultant Name

Christopher B. Burke Engineering, Ltd.

County

Lake

Section Number

19-00099-65-ES

Job Number

AVERAGE HOURLY PROJECT RATES
EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	23. Project Management and Admin.			24. QA/QC														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Engineer VI	83.00	16	6.90%	5.72	4	12.50%	10.37												
Engineer V	72.91	54	23.28%	16.97	12	37.50%	27.34												
Engineer IV	59.67	32	13.79%	8.23	8	25.00%	14.92												
Engineer III	47.01	32	13.79%	6.48															
Engineer I/II	36.38	48	20.69%	7.53															
Survey V	85.42																		
Survey IV	76.59																		
Survey III	66.93																		
Survey II	54.74																		
Survey I	38.92																		
Engineering Technician V	69.21																		
Engineering Technician IV	64.31																		
Engineering Technician III	43.05																		
Engineering Technician I/II	30.13																		
CAD Manager	71.14																		
CAD Technician II	53.53																		
GIS Specialist III	58.26	12	5.17%	3.01															
Landscape Architect	65.29																		
Landscape Designer III	40.68																		
Environmental Resource Spec	76.35	32	13.79%	10.53	8	25.00%	19.09												
Environmental Resource Spec	61.05	6	2.59%	1.58															
Environmental Resource Spec	52.98																		
Environmental Resource Spec	31.06																		
Environmental Resource Tech	45.50																		
Engineering Intern	18.96																		
Business Operations Departm	57.95																		
TOTALS		232.0	100%	\$60.06	32.0	100%	\$71.72	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

Guarino Historic Resources Documentation (Jean L. Guarino, Ph.D.)

Section 106

Supplement Proposal to finalize Cultural Resources Studies for the Old McHenry Crossings (OMX) Phase I Study in Lake County, Illinois

Prepared for:
TransSystems
1475 East Woodfield Road, Suite 600
Schaumburg, IL 60173-5440

Prepared by:
Jean L. Guarino, Ph.D., Principal
Guarino Historic Resources Documentation
844 Home Ave., Oak Park, IL 60304
guarinojl@gmail.com | jeanguarino.com

August 13, 2024

Introduction

This supplement proposal was developed in response to a request by TransSystems. Jean Guarino, Ph.D., served as the Primary Investigator (PI) for the Historic Properties Inventory (HPI) and the Assessment of Effects (AOE) undertaken for the Old McHenry Crossings (OMX) Phase I Study in Lake County in 2021-23, in conjunction with staff from Christopher B. Burke Engineering (CBBEL).

The HPI was submitted to the Illinois Department of Transportation (IDOT) on 8/29/2023. The Draft Assessment of Effects (AOE) was submitted to IDOT on 12/15/23. Responses to comments from IDOT's Cultural Resources Unit, received in June 2024, were submitted to IDOT in August 2024.

This supplemental proposal is a request to fund additional hours for work related to the finalization of the Cultural Resources Studies for this project for eventual submittal to the Illinois State Historic Preservation Office.

Scope of Work

Work will include additional analysis, research, and photography related to three sites that warrant consideration for listing on the National Register of Historic Places—the former Hubbard Schoolhouse, the former Leo Burnett property, and St. Matthew's Church Cemetery—and possibly another unknown property based on coordination with the Village of Hawthorn Woods. Existing documentation (HPI Report, Inventory Table, Photograph Log; Assessment of Effects) will be edited to address comments received from IDOT and the SHPO. Additional hours are included for attendance at three meetings with the project team and the preparation of meeting minutes; attendance at a future public meeting; and assistance with the preparation of an individual Section 4(f) report, if needed.

Cost: \$19,200 (based on 160 hours at \$120 per hour)