

248th Avenue Phase I Study 103rd Street to 95th Street City of Naperville Supplement #3

I. Scope of Services

The original scope of services and Supplements #1 and #2 included the traffic and noise analysis, in addition to the Transportation Advisory Board presentation. Following Public Information Meeting #3 and coordination with the City following that public meeting, changes to the 2050 Projected Traffic Design Hourly Volumes were required. The updated traffic volumes require the traffic analysis and noise analysis to be updated. Following the noise analysis update, it is likely that neighborhood/viewpoint meetings will be required to determine the reasonableness of potential noise barriers. Initial findings were presented to the Transportation Advisory Board, however, the Board was unable to reach a quorum, requiring a second presentation. The second presentation to TAB is also outside of the original scope of services and Supplements #1 and #2.

The following Scope of Services details the required work outside of the original Scope of Services and Supplements #1 and #2.

Item 1 - Early Coordination and Data Collection - No additional work proposed.

Item 2 – Topographic Survey – No additional work proposed.

Item 3 – Crash Analysis – No additional work proposed.

Item 4 – Traffic Analyses – Coordination with CMAP to determine the extent of the ICN development in the 2050 Build Projections. Traffic analyses will require updates, including the Design Hourly Volumes, HCS analyses, queue analyses, and Intersection Design Studies.

Item 5 - Alternate Geometric Studies - No additional work proposed.

Item 6 – Geotechnical Studies – No additional work proposed.

Item 7 – Preliminary Environmental Site Assessment (PESA) – No additional work proposed.

Item 8 – Air Quality – No additional work proposed.

Item 9 – Highway Traffic Noise Analysis – Prior to the third public information meeting (PIM #3), the highway traffic noise analysis was completed and reviewed/approved by IDOT. Only one traffic noise impact was predicted, but no noise barriers were found to be feasible. Subsequent to the PIM #3, it was



concluded though coordination with the City and CMAP that Design Hourly Traffic Volumes (DHVs) volumes needed revision. The traffic noise analysis and report will need to be updated to account for increased 2050 No Build and 2050 Build traffic volumes. It is anticipated that traffic noise impacts will be predicted at approximately 8 of 11 areas, thus requiring analyses to determine if noise barriers meet the two feasibility and three reasonableness criteria. Two areas were assumed in the original scope of services, resulting in a net gain of 6 locations. The feasibility criteria and two of the three reasonableness criteria will be determined through updated traffic noise modeling. The third reasonableness criterion is met when, generally speaking, the majority of the residents benefited by a potential noise barrier are in favor of its installation. This is called "viewpoints solicitation". The viewpoints of the benefited residents are gathered at neighborhood meetings with the affected residents. The updated noise report will be reviewed by IDOT at two points in the above process: first, just prior to viewpoints solicitation, and secondly, after viewpoints solicitation is complete. Following are the anticipated tasks for this item.

- A. Prepare for and attend several Post-PIM #3 virtual coordination meetings with City staff. Post-PIM #3 work included preliminary noise model runs and tabulations to preliminarily identify potential impact locations. A written summary and table was prepared for posting to the City's website. In addition, a detailed traffic noise presentation was prepared and delivered to address public concerns related to traffic noise.
- B. Update the highway traffic noise analysis for 2050 No-Action Alternative.
- C. Update the 2050 Build analysis using TNM to identify if highway traffic noise impacts will result at the developed receptor locations.
- D. Evaluate the feasibility of noise barriers and locations with impacts. It is assumed that a noise barrier will be feasible at all approximately 8 locations, which results in a net increase of 6 locations over the 2 locations assumed in the original scope.
- E. Evaluate the first two of three noise barrier reasonableness criteria (noise reduction design goal and cost reasonableness). At this time, is it assumed that a noise barrier would meet these two criteria at all approximately 8 locations. This results in a net increase of 6 locations over the 2 locations assumed in the original scope. Therefore, viewpoints solicitation would need to occur at these locations.
- F. Prior to viewpoints solicitation, update the Highway Traffic Noise Analysis Technical Memorandum including exhibits and tables for the preferred alternative and submit to the City then IDOT for review. IDOT approval is needed to proceed to the viewpoints process. Submittals will be all electronic.
- G. Hold viewpoints meetings with residents predicted to be benefited by feasible and reasonable noise barriers. At this time, it is assumed that 120 residents along the corridor could be benefited by noise barriers. It is recommended that these meetings remain small and focused on one to three areas at a time. Assume four meetings total, which results in a net increase of 2 meetings over the 2 that were assumed in the original scope. In addition, due to heightened public concerns regarding traffic and noise, we are proposing an additional staff person at each meeting. For each meeting:
 - i. Prepare and mail invitation letters, "ballots", and other attachments via certified mail. It is assumed this task is to be completed by City of Naperville staff.
 - ii. Prepare exhibits, handouts, & PowerPoint presentation for two additional meetings. Includes preparation of 3D rendering/visualization exhibits of potential noise barriers, which will be especially important given the atypical location of potential noise barriers



- iii. Attend two additional meetings.
- iv. Compile and summarize results from two additional.
- H. It is anticipated that noise impacts may not be predicted at some areas (assume 3 of 11 areas). Civiltech will perform barrier analysis at these locations to determine what an appropriate noise barrier length, height, and location would be in the event that the City would choose to install barriers at these locations. This was not included in the original scope of services.
- I. Update the Highway Traffic Noise Analysis Technical Memorandum to incorporate viewpoints solicitation process. Submit for review and approval to the City and then IDOT.
- J. Incorporate updated results into Project Development Report.

Item 10 – Drainage Study – No additional work proposed.

Item 11 – Wetland Investigation – No additional work proposed.

Item 12 – Section 4(f) Evaluation and Documentation – No additional work proposed.

Item 13 – Draft Project Development Report – No additional work proposed.

Item 14 – Agency Coordination – Additional coordination with IDOT will be required regarding the update to the traffic and noise analyses.

Item 15 – Public Involvement – Preparation for and attendance at the official TAB meeting.

Item 16 – Final Project Development Report – No additional work proposed.

Item 17 – Supervision, Administration and Project Coordination – No additional work proposed.

248th Avenue Phase I Study 103rd Street to 95th Street City of Naperville

COST ESTIMATE OF CONSULTANT SERVICES PHASE I ENGINEERING Supplement #3

						Pore	onnel & Hours								
	Department Head	Project Manager	Project Engineer	Design Engineer	Engagement Specialist	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician	Admin. Asst.	Total Hours	% of Hours	Labor Cost
	\$70.00	\$62.50	\$50.75	\$33.00	\$34.00	\$70.00	\$35.00	\$51.25	\$39.25	\$40.00	\$36.50	\$20.00			
Task															
1 Early Coordination and Data Collection				•	N	additional work	proposed				•				
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2 Topographic Survey					No	o additional work	proposed								
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3 Crash Analysis					No	o additional work	proposed								
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4 Traffic Analysis	•			· · · · · ·		•		•			•				
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8 Air Quality		-			N	additional work	proposed			-	-		-		•
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13 Draft/Pre-final Project Development Report	0	0	0	0	N	additional work	proposed	0	0	0			0	0.0%	¢
44 Anoncy Coordination	0	0	0	0	NL	U U	U	0	0	0	U	0	0	0.0%	Ъ -
14 Agency Coordination		0	4		N	additional work	proposed			0			0	4.00/	¢ 400
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	8	10	8	8		0 0	0	0	0	0		0	34	7.0%	\$ 1,855
16 Final Project Development Report					N	additional work	proposed				1			0.00/	•
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17 Supervision, Administration & Project Coordination					N	additional work	proposed								•
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Sub-Total	20	98	78	-		0 0	0	4	52	30			486		
% of Hours	4.1%	20.2%	16.0%	37.4%	0.00	6 0.0%	0.0%	0.8%	10.7%	6.2%	4.1%	0.4%		100.0%	
Total Cost	\$1,400	\$6,125	\$3,959	\$6,006	\$	0 \$0	\$0	\$205	\$2,041	\$1,200	\$730	\$40			\$21,706
Multiplier*	2.57														\$55,889
Direct Costs (See Exhibit A-4)															\$0
Subconsultants (See Exhibit A-4)															\$0
											Total Fr	ngineering Cost			\$55,889
												ighteening oost			ψ00,009

* Multiplier = (DL + OH + FF) DL = Direct Labor OH = Overhead = 124.88% FF = Fixed Fee = 32.61% where FF = 14.5%[DL + OH(DL)]

COST ESTIMATE OF CONSULTING SERVICES Exhibit A-2 Page 1 of 1

248th Avenue Phase I Study 103rd Street to 95th Street City of Naperville

WORKHOUR ESTIMATE PHASE I ENGINEERING Supplement #3

	Personnel & Hours														
Item							Sr.		0 T (7)					_	
No.	Task	Department	Project	Project	Design	Engagement	Drainage	Drainage		Traffic	Graphic	Design		Total Hours	% of Hours
		Head	Manager	Engineer	Engineer	Specialist	Engineer	Engineer	Engineer	Engineer	Designer	Technician	Asst.		
1	Early Coordination and Data Collection														
	Cub total liam d	0	0	No addit	ional work pro	posed.	0						•	0	0.0%
	Sub-total Item 1	U	U	U	0	U	U	U	U	U	U	U	U	U	0.0%
2	Topographic Survey														
_				No addit	ional work pro	oposed									
	Sub-total Item 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
3	Crash Analysis														
					ional work pro			T		T	T	,			
	Sub-total Item 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
4	Tastia Analysia														
	Traffic Analysis Coordination with CMAP	2	2						2					6	6.7%
	Update 2050 Build DHV	2	2						2	16				22	24.4%
	Update HCS and Queue Analyses	2	2	2	8				2	20				32	35.6%
	Update Intersection Design Studies		2	4	8					16				30	33.3%
	Sub-total Item 4	4	8	6	16	0	0	0	4	52	0	0	0	90	100.0%
		-	-												
5	Alternate Geometric Studies														
				No addit	ional work pro	oposed						•			
	Sub-total Item 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
6	Geotechnical Studies			N.a. a dalid											
	Cub total Itam C	•	•	No addi	ional work pro		0	•	•	•	0	0	0	0	0.0%
	Sub-total Item 6	U	U	U	0	0	U	U	0	U	0	U	0	U	0.0%
7	Preliminary Environmental Site Assessment														
				No addit	ional work pro	posed									
	Sub-total Item 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
											-				
8	Air Quality														
					ional work pro	·		•		•					
	Sub-total Item 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
0	Noise Analyses														
	Post-PIM 3 coordination with City and public.	6	16	20	16									58	16.4%
	Update 2050 No Build Model	0	4	20	12									18	5.1%
	Update 2050 No Build Model		8	<i>L</i>	40							+ +		48	13.6%
	Evaluate feasibility at 6 additional locations.		12	8	16				1			+ +		36	10.2%
	Evaluate first two of three reasonableness criteria at 6 additional locations.		12	8	16									36	10.2%
	Update report and submit to City and IDOT.		8	1	16							8		32	9.0%
G.	Viewpoints meetings, incl. exhibits, handouts, presentation, attendance, summary.		10	16	16						30	12	2	86	24.3%
	Evaluate noise barriers at locations where impacts are not identified for City information.		4	4	16									24	6.8%
	Update report and submit to City and IDOT.		4		8									12	3.4%
J.	Incorporate updated results into Project Development Report.		- -	2	2	-							-	4	1.1%
	Sub-total Item 9	6	78	60	158	0	0	0	0	0	30	20	2	354	100.0%

WORKHOUR ESTIMATE Exhibit A-3 Page 1 of 2 248th Avenue Phase I Study 103rd Street to 95th Street City of Naperville

WORKHOUR ESTIMATE PHASE I ENGINEERING Supplement #3

		Personnel & Hours													
ltem No.	Task	Department Head	Project Manager	Project Engineer	Design Engineer	Engagement Specialist	Sr. Drainage Engineer	Drainage Engineer	Sr. Traffic Engineer	Traffic Engineer	Graphic Designer	Design Technician	Admin. Asst.	Total Hours	% of Hours
10	Drainage Study														
			-		ional work pro						-			-	
	Sub-total Item 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
	1			•											
11	Wetland Investigation														
					ional work pro	•									
	Sub-total Item 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
40	Destion 4/8 Evolution and Decomposite														
12	Section 4(f) Evaluation and Documentation			Nia addit											
	Sub-total Item 12	0	0		ional work pro	oposea 0	0	0	•	0	0	0	0	0	0.0%
	Sub-total item 12	U	U	U	U	U	U	U	U	U	U	U	U	U	0.0%
13	Draft/Pre-final Project Development Report														
13				No addit	ional work pro	posod									
	Sub-total Item 12	0	0		0	0	0	0	0	0	0	0	0	0	0.0%
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14	Agency Coordination														
A	IDOT Project Update Meeting	2	2	4										8	100.0%
	Sub-total Item 14	2	2	4	0	0	0	0	0	0	0	0	0	8	100.0%
		_	_	•	, C	•			, C	U		, e		· ·	
15	Public Involvement														
	resentation														
Α	Updates to TAB Presentation	2	2	4	4									12	35.3%
В	Attendance at TAB Meeting	4	4											8	23.5%
С	Preparation of public responses	2	4	4	4									14	41.2%
	Sub-total Item 15	8	10	8	8	0	0	0	0	0	0	0	0	34	100.0%
16	Final Project Development Report														
					ional work pro										
	Sub-total Item 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
17	Supervision, Administration & Project Coordination														
		_			ional work pro										
	Sub-total Item 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
	▼ (111	00		70	400	•				50			•	400	
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	% of Hours:	4.1%	20.2%	16.0%	37.4%	0.0%	0.0%	0.0%	0.8%	10.7%	6.2%	4.1%	0.4%	100.0%	