



Naperville

CONSULTANT ENGINEERING SERVICES SOUTH 40 TRAFFIC IMPROVEMENTS PHASE 2 - DESIGN ENGINEERING RFP 22-263

SCOPE OF SERVICES:

This scope of services covers preliminary and design engineering services for the proposed traffic improvements related to the development of the City of Naperville South 40 parcel located at the southeast corner of IL Route 59 and 103rd Street. The scope of the project includes the construction of a new entrance on the east leg at the intersection of IL Route 59 and English Rows Avenue with approximately 600-feet of temporary road heading east from the intersection. Additionally, construction of a southbound left-turn lane and northbound deceleration/right-turn lane on IL Route 59 are part of the project scope. An Intersection Design Study will be required along with Hydraulic and Drainage analysis and design. The start of construction is tentatively scheduled for March 2024.

The consultant is expected to perform preliminary and detailed design engineering services in accordance with, but not limited to, the following overall work tasks:

A. Data Collection. The City will provide the consultant with:

- City of Naperville's Geographic Information System (GIS) Data
- Future development plans
 - Topographic survey for future development, if available
 - Traffic Impact Analysis for future development, if available
- Adjacent Traffic Impact Analysis with related traffic counts
 - Wagner Farms Subdivision
- Existing development plans
 - English Rows Development Plans (West leg of intersection)
 - IL Route 59 Plans
- Crash reports

**The consultant will collect utility atlases and other necessary information related to the project*

B. Field Survey and Mapping. Conduct a full topographic survey of the project area. The project area includes:

- i. North, south and east legs of the intersection of IL Route 59 and English Rows Avenue.
- ii. Temporary 24' wide roadway extending from the new entrance on the east leg of the intersection of IL Route 59 and English Rows Avenue and heading east approximately 600 feet.

- iii. Survey limits should extend 50' beyond the Right-of-way line. Survey limits should be extended as needed to pick up critical information.
- C. *Project Coordination.* The following coordination meetings will be included in the scope of the design. The consultant will prepare minutes for all meetings.
- Staff Kick Off Meeting (1)
 - City of Naperville Coordination and plan review meetings (3)
 - IDOT Coordination Meetings (2)
 - Field Meetings (2)
- D. *Preliminary Design.* The consultant will prepare a preliminary engineering design. A second and final engineering design should incorporate feedback from staff review
- i. Consultant will design traffic improvements which incorporate the following design features, including but not limited to:
 - i) A southbound left-turn lane
 - ii) Modifications to the northbound left turn lane to minimize offset from the proposed southbound left-turn lane
 - iii) A northbound deceleration/right-turn lane
 - iv) Perform a drainage study/hydraulic analysis and storm sewer sizing in accordance with IDOT standards.
- E. *Traffic Analyses & Intersection Design Study (IDS).* Traffic analyses will be performed to determine existing and proposed operations in the project corridor. It is anticipated that Intersection Design Studies will be required.

The traffic analyses will include:

- i. Obtain 24-hr. turning movement, bike, and pedestrian counts using video counting units (VCU) at the intersection of IL Route 59 and English Rows Avenue.
 - ii. Reduce and tabulate traffic count data; determine A.M. and P.M. peak hours and peak hour usage; prepare traffic volume exhibits.
 - iii. Obtain 2050 traffic projections from CMAP for the corridor.
 - iv. Develop design hourly traffic volumes (DHV's). With assistance from City staff and the ITE Trip Generation Manual, develop projected traffic volumes for the proposed development(s) on the southeast corner of 103rd Street and IL Route 59
 - v. Perform A.M. and P.M. existing and 2050 No-Build capacity analyses using HCS7 to establish a baseline for comparison to proposed intersection improvements.
 - vi. Perform A.M. and P.M. 2050 Build capacity analyses using HCS7 to determine level of operation.
 - vii. Prepare and submit crash and traffic analyses package to the City for review.
 - viii. Prepare Intersection Design Studies as required by IDOT and FHWA at the intersection of IL Route 59 and English Rows Avenue.
- F. *Permitting.* It will be the responsibility of the consultant to coordinate with the various permitting agencies. Coordination includes, but is not limited to, the preparation, submission and attainment of permits and/or approvals from the City of Naperville and

Illinois Department of Transportation (IDOT). Sufficient time shall be allowed to obtain necessary permits prior to bidding

- G. *Field Sampling.* The Consultant will perform one (1) soil boring, to a depth of 10-feet. This soil boring is to be located east of the intersection of IL Route 59 and English Rows Avenue. This soil boring will be used to sample for non-special waste and for pavement design.

The consultant shall also conduct sampling for non-special waste during the design of this project at one (1) location, to a depth of 7-feet. This sample should be taken near the east leg of the intersection at IL Route 59 and English Rows Avenue.

- H. *Construction Document Preparation.* Prepare conceptional plans, 60% plans, 90% pre-final plans, and final plans, as well as specifications and engineer's opinion of probable construction costs for the improvements as identified in the preliminary engineering phase. The pre-final and final documents will be reviewed by the City of Naperville, including the Development Review Team. Up to two review cycles may be required with a disposition of comments. The final construction documents will address all comments received. The plans will include, but are not limited to:

- (1) Cover sheet with index, project location map, list of standards
- (2) General notes
- (3) Summary of quantities
- (4) Alignments, ties and benchmarks (1" = 200')
- (5) Typical section(s) and pavement design
- (6) Maintenance of Traffic General Notes and Construction Staging
- (7) Maintenance of Traffic (1" = 50')
- (8) Existing conditions and removal plans (1" = 20')
- (9) Erosion control and Stormwater Pollution Prevention Plan (1" = 50')
- (10) Proposed plan and profile for roadway (1" = 20')
- (11) Cross-Sections (1"=10')
- (12) Proposed plan and profile of drainage improvements (1" = 20')
- (13) Pavement marking and signage plan (1" = 50')
- (14) Construction details

**Note 1"=50' scale references project overview sheets, 1"=20' references detail plans, actual scale to be determined by engineering consultant*

- I. *Summary of quantities and estimate of cost.* Provide a summary of quantities and engineer's opinion of probable construction costs. Quantities and estimate shall be provided at 60% completion as well as following acceptance of the final design. Documents to be provided to the City in a modifiable electronic format. City will prepare bidding documents through City procurement standards.
- J. *Bidding Assistance.* Answer technical questions during the bidding process and attend the pre-construction meeting.

Consultant shall prepare and submit proposal using IDOT CECS worksheet.

The successful consultant may be used for additional phases of this project, including Phase 3 construction engineering.

VIA EMAIL: CalpinM@naperville.il.us



corporate office: 238 south kenilworth avenue
oak park, illinois 60302

January 20, 2023

branch offices: 2625 butterfield road
suite 209w
oak brook, illinois 60523

762 shoreline drive
suite 200
aurora, illinois 60504

Mr. Matt Calpin, P.E., Project Engineer
Transportation, Engineering and Development (TED)
City of Naperville
400 S. Eagle St.
Naperville, IL 60540

Re: TEG Proposal for Ph I & II – South 40 Traffic Improvements
City of Naperville Contract 17-122, Phase I and Phase II Engineering Services Shortlist

Dear Mr. Calpin:

Thank you for providing Thomas Engineering Group, LLC (TEG) with the opportunity to assist the City of Naperville with Phase I and II Consulting Engineering Services for the South 40 Traffic Improvements at the intersection of IL Route 59 and English Rows Avenue.

In response to the final RFP 22-263, issued on December 13, 2022, TEG hereby submits an IDOT Cost Estimate of Consultant Services (CECS) based on a Cost-Plus Fixed Fee (CPFF) method of compensation. Note that for the drainage/hydraulic analysis, we have not included processing of IDOT Permit's Drainage Connection Checklist as this is intended for site development and we do not believe it is applicable. While this estimate accurately reflects our best effort at understanding the scope of work as described in the RFP, we understand that the City may interpret the scope differently and may seek to add, subtract, or modify the scope or level of effort contained herein.

We appreciate the opportunity to work with you and display our **service at the highest grade®**. If you have any questions or require additional information, please call me at (847) 815-9500 or e-mail at kevinv@thomas-engineering.com.

Sincerely,
thomas engineering group, llc

Kevin C. VanDeWoestyne, P.E., ENV SP
Municipal Department Head

cc: Jim Yuratovac, P.E., Senior Project Manager, Thomas Engineering Group
Thomas Gill, III, P.E., President, Thomas Engineering Group



City of Naperville

Will

South 40

Thomas Engineering Group

RFP 22-263

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

COMPLEXITY FACTOR 0

58,454



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

Local Public Agency	County	Project
City of Naperville	Will	South 40
Prime Consultant (Firm) Name	Prepared By	Date
Thomas Engineering Group	Jim Yuratovac	1/16/2023
Consultant / Subconsultant Name	Job Number	
Thomas Engineering Group	RFP 22-263	

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

Remarks

PAYROLL ESCALATION TABLE

CONTRACT TERM	18	MONTHS	OVERHEAD RATE	120.00%
START DATE	2/1/2023		COMPLEXITY FACTOR	0
RAISE DATE	1/1/2024		% OF RAISE	2.00%
END DATE	7/31/2024			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	2/1/2023	1/1/2024	11	61.11%
1	1/2/2024	8/1/2024	7	39.67%

The total escalation = 0.78%

Local Public Agency

City of Naperville

County

Will

Project

South 40

Consultant / Subconsultant Name

Thomas Engineering Group

Job Number

RFP 22-263

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			\$0.00
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day	10	\$65.00	\$650.00
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
				\$0.00
				\$0.00
				\$0.00
				\$0.00
TOTAL DIRECT COSTS:				\$650.00

City of Naperville

Thomas Engineering Group

Will

South 40

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EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 **OF** 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			A. Data Collection			B. Field Survey and Mapping			C. Project Coordination			D. Preliminary Design			E. Traffic Analyses & IDS		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Principal	78.00	2.0	0.38%	0.29	0			0			2	6.25%	4.88	0			0		
Senior Project Manager	74.19	104.0	19.55%	14.50	2	16.67%	12.37	0			16	50.00%	37.10	14	17.28%	12.82	16	26.67%	19.78
Project Manager/Senior Resident Engineer	67.42	16.0	3.01%	2.03	0			0			0			16	19.75%	13.32	0		
Project/Resident Engineer IV	61.47	13.0	2.44%	1.50	0			0			0			3	3.70%	2.28	2	3.33%	2.05
Project/Resident Engineer III	46.71	192.0	36.09%	16.86	10	83.33%	38.93	0			14	43.75%	20.44	24	29.63%	13.84	22	36.67%	17.13
Engineer II	36.07	130.0	24.44%	8.81	0			0			0			24	29.63%	10.69	20	33.33%	12.02
Engineer I	30.39	0.0			0			0			0			0			0		
Chief Surveyor	61.58	8.0	1.50%	0.93	0			8	10.67%	6.57	0			0			0		
Technical Manager	51.87	25.0	4.70%	2.44	0			25	33.33%	17.29	0			0			0		
Senior Technician	46.24	0.0			0			0			0			0			0		
Technician III	45.35	0.0			0			0			0			0			0		
Technician II	32.70	42.0	7.89%	2.58	0			42	56.00%	18.31	0			0			0		
Technician I	30.14	0.0			0			0			0			0			0		
Business Manager	61.78	0.0			0			0			0			0			0		
Marketing & Admin Coordinator	44.44	0.0			0			0			0			0			0		
Intern	17.13	0.0			0			0			0			0			0		
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TOTALS		532.0	100%	\$49.94	12.0	100.00%	\$51.29	75.0	100%	\$42.17	32.0	100%	\$62.41	81.0	100%	\$52.94	60.0	100%	\$50.98

City of Naperville

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South 40

RFP 22-263

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 2 **OF** 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	F. Permitting			G. Field Sampling			H. Construction Documents			I. Quantities & Cost Estimate			J. Bidding Assistance					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Principal	78.00	0			0			0			0			0					
Senior Project Manager	74.19	6	20.00%	14.84	2	50.00%	37.10	36	22.22%	16.49	6	10.34%	7.68	6	33.33%	24.73			
Project Manager/Senior Resident Engineer	67.42	0			0			0			0			0					
Project/Resident Engineer IV	61.47	0			0			6	3.70%	2.28	2	3.45%	2.12	0					
Project/Resident Engineer III	46.71	24	80.00%	37.37	2	50.00%	23.36	60	37.04%	17.30	28	48.28%	22.55	8	44.44%	20.76			
Engineer II	36.07	0			0			60	37.04%	13.36	22	37.93%	13.68	4	22.22%	8.02			
Engineer I	30.39	0			0			0			0			0					
Chief Surveyor	61.58	0			0			0			0			0					
Technical Manager	51.87	0			0			0			0			0					
Senior Technician	46.24	0			0			0			0			0					
Technician III	45.35	0			0			0			0			0					
Technician II	32.70	0			0			0			0			0					
Technician I	30.14	0			0			0			0			0					
Business Manager	61.78	0			0			0			0			0					
Marketing & Admin Coordinator	44.44	0			0			0			0			0					
Intern	17.13	0			0			0			0			0					
TOTALS		30.0	100%	\$52.21	4.0	100.00%	\$60.45	162.0	100%	\$49.42	58.0	100%	\$46.03	18.0	100%	\$53.51	0.0	0%	\$0.00