

September 8, 2023

DRAFT

Shane E. Schneider, PE
Director of Transportation / County Engineer
Lake County Division of Transportation
600 W. Winchester Road
Libertyville, IL 60048

Attn: Thomas Somodji

**SUBJECT: Kenosha Road at 21st Street
Section Number 19-00125-07-CH
Supplement #2 (Version 2)**

Dear Mr. Schneider:

Enclosed please find our supplemental Scope of Work, Workhour Summary and Cost Estimate of Consultant Services (CECS) for your review and approval. The cover letter includes a brief description of the scope modifications identified through project development. The original contract included three separate projects (Resurfacing, Culvert, Intersection) of which the resurfacing and culvert project are completed. Additional effort was needed to complete the resurfacing and culvert contract due to extra submittals, changes in scope and project limits, and additional RFI support needed to complete the necessary contract documents. A summary of the attachments covering all projects is provided below:

SUMMARY OF ATTACHMENTS

- **Attachment 1: Phase II Scope CECS – 36-Month Schedule**
 - Includes original costs for the intersection Phase II scope of work for the original schedule.
- **Attachment 2: Phase II Scope CECS – 66-Month Schedule**
 - Includes updated costs for the intersection Phase II scope of work incorporating the extended schedule with increased escalation rate to help offset consultant labor costs.
- **Attachment 3: Resurfacing / Culvert Additional Scope CECS**
 - Additional costs identified for completion of the resurfacing and culvert contracts.
- **Attachment 4: Work Hours Additional Scope / Balancing – Intersection Phase I / II**
 - Scoping changes which include removing, adding, and modifying effort for the intersection project. Work no longer anticipated to be required for the project is deducted with additional scope included in a separate column.
- **Attachment 5: CECS – Supplement #2 (OH Rate 184.14%)**
 - Out-of-scope costs after rebalancing hours for the Intersection Project.
- **Attachment 6: CECS and Scope of Services – HBK Engineering, LLC**
 - Scope of services for HBK Engineering to complete the utility / land acquisition / pickup survey.
- **Attachment 7: CECS and Scope of Services – Huff & Huff / GZA**
 - Scope of services for Huff & Huff to update the wetland delineations, PJD, and wetland report.
- **Attachment 8: CECS and Scope of Services – Wang Engineering**
 - Scope of services to complete the geotechnical and environmental sampling for PSI / LPC 663 for the roundabout alternative.

**SUBJECT: Kenosha Road at 21st Street
Section Number 19-00125-07-CH
Supplement #2 Summary**

An executive summary of the supplement is included below:

Additional Design and Coordination

- There was extensive drainage and hydraulic analysis that was required which was not anticipated in the original contract. The adjacent subdivisions and large drainage areas required review of several comprehensive stormwater reports and hydraulic models, defining of the floodplain elevations to be used for project design, and multiple coordination meetings with Lake County SMC staff to get their concurrence on the floodplain elevations and compensatory storage designs.
- Based on the drainage analysis and coordination with LCSMC, additional engineering design and geometric changes were necessary to reduce impacts to sensitive environmental resources (wetland and floodplain) and to minimize the compensatory storage needed for the project.
- There was additional effort required for the resurfacing and culvert replacement projects, including utility relocation review and coordination, additional soil testing (CCDD), acquisition of a permanent and two temporary easements that were not originally anticipated, and construction support.

Additional Public and Stakeholder Coordination

- Given the proximity of the project to the high school and needs to close the intersection to construct the roundabout, LCDOT added a public meeting to the contract scope. This will allow the team to share the traffic plan with area residents so they can ask questions and plan their daily trips accordingly.
- Similarly, LCDOT is adding additional public education effort for the roundabout. This will include preparation of roundabout flyers and coordination with the public and school to educate residents on how to drive and walk through the new roundabout.

Extended Project Schedule

- The contract is estimated to be extended by 30 months due to COVID (waiting for traffic and school operations to recover) and additional agency coordination (including the extensive drainage analysis/coordination mentioned above).
- This will require updates to the environmental reports and clearances, such as wetland delineations/reports and the Preliminary Environmental Site Assessment.

Change in Conditions

- The adjacent high school is completing an improvement within the project limits that impacts the compensatory storage limits. This will require an updated topographic survey and analysis upon completion of their project.



EXTENDED SCHEDULE IMPACTS

The original contract included a 36-month schedule ending on 3/1/2023. The Phase II work associated with the intersection project had not been started at the conclusion of the contract duration. We are requesting the County consider the additional contract duration associated with the remaining original scope of work (2,222 hours) to extend the original schedule in the CECS to a total of 66 months which allows for an increase in escalation that better reflects when the work would be completed and helps offset the higher current labor costs for when the work will be performed. **Attachment #1** includes the remaining Phase II original scope of work with the original 36-month schedule. **Attachment #2** includes the 66-month schedule for the same remaining original scope of work. Table 1 includes a summary of the requested adjustment with the extended schedule for the original Phase II scope items.

Table 1: Requested fee adjustment for Intersection Phase II scope due to extended schedule

Contract Duration	Intersection Phase II Labor	Overhead Rate (168.56%)	Fixed Fee	Total
36-Month	\$100,608	\$169,585	\$37,225	\$307,418
66-Month	\$104,296	\$175,801	\$38,589	\$318,686
Increase	\$3,688	\$6,216	\$1,364	\$11,268



ADDITIONAL LABOR COSTS FROM RESURFACING / CULVERT PROJECTS

The resurfacing and culvert contract required additional work related to submittals and scoping updates. A summary of the additional effort for each project is included below. The cost for the additional work is included as **Attachment #3**.

21st STREET RESURAFACING PROJECT

The scope included two PS&E submittals which ultimately required three submittals resulting in additional effort to respond to comments, revise plans, and prepare an additional submittal package resulting in 16 hours of additional labor. The costs associated with this additional work are noted in **Table 2**.

TRIPLE CELL CULVERT REPLACEMENT PROJECT

The additional costs for the culvert replacement project is related to the following out-of-scope work:

- Additional sheets for the extended project limits to match into the resurfacing contract (plan & profile and cross sections) = 48 hrs.
- Additional QA/QC time was needed to review the plans and specifications for the additional work required with the culvert replacement opposed to a lining project = 8 hours.
- Additional construction support that was not anticipated with the original culvert lining project. The construction assistance was related to utility relocations and field meeting, shop drawing review, and general construction RFI support = 24 hrs.
- The scope included two PS&E submittals which ultimately required three submittals with reviewing and responding to comments, revising PS&E, and submittal packaging = 16 hrs.

The additional culvert replacement scope totaled 96 hours of labor. **Table 2** summarizes the additional costs of the effort noted below for both the resurfacing and culvert projects.

Table 2: Costs for Out-of-Scope work on the Resurfacing and Culvert Projects

Contract	Additional Direct Labor (Payroll)	Overhead Rate (168.56%)	Fixed Fee	Total
Resurfacing	\$831	\$1,401	\$307	\$2,539
Culvert	\$4,840	\$8,159	\$1,791	\$14,790



INTERSECTION PROJECT

Since the original contract was negotiated in early 2020, Stanley Consultants (and the industry at large) has seen a significant increase in payroll and overhead rates. We are requesting the County consider allowing use of the current IDOT approved payroll and overhead rates (184.14%) for any additional out-of-scope work identified that will be required for completing the project. The additional out-of-scope work is balanced against scope that is not anticipated to be required for completing the project with work hours summarized in **Attachment #4**. The updated CECS for the rebalanced additional work is included as **Attachment #5** using current overhead and payroll rates.

The following scoping elements are identified as being either modified, removed, or added for the Intersection Project:

DATA COLLECTION / UTILITY COORDINATION / LAND ACQUISITION

The preliminary geometry is modeled in 3D which identifies potential construction limits. There is insufficient existing terrain information to accurately depict the existing ground features at tie-down locations in and around the wetlands / floodplain. Topographic pickup survey is included to collect additional information in the wetland / floodplain area to verify existing topography. Utility coordination and land acquisition services are updated based on the preliminary construction limits and estimated number of parcels. The appraiser is expected to be changed for the project moving forward with explanation submitted under separate cover. See **Attachment #6** for HBK Engineering, Ltd., scope of services.

ENVIRONMENTAL STUDIES

The preliminary jurisdictional determination (PJD) has expired and will need to be updated with Lake County Stormwater Management Commission (LCSMC). LCSMC indicated that the wetland delineations and report will need to be updated for the anticipated late 2024 / early 2025 construction letting. Huff & Huff (H&H) / GZA will complete the wetland delineations, PJD update, and wetland report. See **Attachment #7** for H&H / GZA scope of services. Additional effort is expected as part of the Lake County Watershed Development Ordinance Application based on the effort needed for the culvert replacement project.

The CONSULTANT will update the Preliminary Environmental Site Assessment (PESA) prior to submittal with the Environmental Survey Request (ESR).

GEOTECHNICAL STUDIES

See **Attachment #8** for scope of services provided by Wang / Terracon for reallocating the remaining scope of work to complete the necessary geotechnical and environmental report for soils management. Additional work was required for both the resurfacing and culvert contract to complete soil sampling and reporting for LPC 663. There are insufficient funds remaining in the contract to complete the necessary intersection scope. The remaining fee would be reimbursed with the updated scope utilizing current costs. Drilling and sampling costs have increased significantly since 2020 and are reflected in Wang Engineering's CECS.



PUBLIC INVOLVEMENT

The CONSULTANT will prepare roundabout informational flyers to be used by the school as part of the driver education program. Additional direct costs and scope for management of the website is included due to the updated project schedule. The school circulation exhibits have been removed as they aren't deemed necessary with their revised school drop-off configuration.

CAPACITY ANALYSIS AND INTERSECTION DESIGN STUDIES

The original scope included Intersection Design Studies (IDS) at two intersections. With the roundabout as the preferred alternative, the IDS requirements included several additional sheets and exhibits that are not typical for a signalized intersection. The change in scope is noted in the updated workhours spreadsheet accordingly. The IDS is anticipated to require one round of revisions after County review. The original scope for the signalized IDS's has been subtracted from the roundabout IDS scope. The traffic analysis memo was redeveloped upon receiving the 2021 traffic data once school resume in-person. The initial memo was included in Supplement #1 which used historical data to estimate traffic for the project.

GEOMETRIC STUDIES

The CONSULTANT developed the alternatives technical memorandum to identify the preferred alternative for the project. This included developing methodology for ranking the alternatives using intersection control evaluation principles. The work at the 21st St / Horizon Ct / ZB Way intersection was limited to concept evaluations to determine anticipated impacts for implementing a roundabout or traffic signal. Adjustments in the hours were made to account for no proposed changes at the intersection and are subtracted against the additional work hours. To reduce compensatory storage and wetland impacts for the preferred alternative, the roundabout was evaluated for several alignments and profiles while balancing the operations and environmental impacts for the intersection. The 3D modeling and cross section development required additional cross sections to determine impacts along the floodplain and wetlands. We also recommend including scope to move the roundabout further west pending discussions with ZBTHS about impacts to their property and the wetlands. The workhours spreadsheet includes reallocation and reimbursement of scope that was not necessary for the project.

DRAINAGE STUDIES

The complexity of the drainage system was not anticipated with the original scope of work. To determine the existing drainage system, several stormwater reports and models were reviewed and compared to survey and utility information to determine the existing flows and outlets for the project. A concept drainage exhibit was developed to evaluate options for detention and compensatory storage requirements for review by LCDOT and LCSMC. The CONSULTANT will complete compensatory storage computations based on the fill within the floodplain. The CONSULTANT will not complete a flood insurance study to determine base flood elevations for defining 0-10 year and 10-100 year compensatory storage requirements. The CONSULTANT will determine the floodplain boundary based on historical flooding elevations and develop the base flood elevations used for computing compensatory storage requirements. A location drainage study technical memorandum will be completed similar to the triple cell culvert for submittal to LCDOT and LCSMC for permitting purposes.



CONTRACT DOCUMENTS

The Phase II scope has been modified to account for additional sheets needed for the roundabout preferred alternative that were not captured in the original scope. The sheet count has been updated to reflect the roundabout preferred alternative which the original scope did not capture all sheet types needed for the project. The deliverables are anticipated to be Prefinal, Final, and Bid and will include the contract plans, special provisions, and cost estimate.

MEETINGS AND COORDINATION

Coordination with the local agencies has been limited to email correspondence to date. The CONSULTANT does not anticipate the need to meet with the local agencies based on their feedback on the proposed intersection alternatives. The proposed scope has been reduced and assumed to be limited to electronic communication and responses to comments. We anticipate needing one additional meeting with LCSMC to discuss the proposed drainage for the project including detention and compensatory storage.

PHASE III ASSISTANCE

The CONSULTANT will attend the construction open house in addition to the original scoped items.

ADMINISTRATION AND MANAGEMENT

The CONSULTANT will perform project management and administration, including staff and resource scheduling, progress monitoring, monthly invoice and progress reports. The time in this task will account for the duration of the 24-months anticipated in the supplement.

QA/QC

The CONSULTANT shall implement their QA/QC policy with hours increased to account for 3% of the additional scope.



OVERALL CONTRACT SUMMARY

The overall cost of the additional work for all three projects is **\$262,483**. This results in an increase from the current amount of \$1,334,147 to \$1,596,630, which equates to an overall 27.8% increase from the original contract value of \$1,249,427. Table 3 summarizes the additional cost for each of the projects as compared to the original contract value. The geotechnical scope covers the work for all three projects and kept under a separate category consistent with the original CECS.

Table 3: Overall Cost Modification for All Projects

Project	Original Contract	Supplement #1	Supplement #2	Total
Resurfacing	\$163,031	\$29,062	\$2,539	\$194,632
Culvert	\$160,022	\$44,116	\$14,790	\$218,928
Intersection	\$863,222	\$11,542	\$172,120	\$1,046,884
Geotechnical	\$63,152	-	\$73,034	\$136,186
Total	\$1,249,427	\$84,720	\$262,483	\$1,596,630

The increase from the original contract to the proposed contract upper limit as a percentage for each project is shown in Table 4.

Table 4: Percent Increase Summary Table

Project	Original Contract	Proposed	Overall Increase %
Resurfacing	\$163,031	\$194,632	19.4%
Culvert	\$160,022	\$218,928	36.8%
Intersection	\$863,222	\$1,046,884	21.3%
Geotechnical	\$63,152	\$136,186	115.6%
Total	\$1,249,427	\$1,596,630	27.8%

If you should have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Tyler Grau, PE
Project Manager
Stanley Consultants, Inc.

Attachment #1

Intersection Phase II CECS
Original 36-Month Schedule

Stanley Consultants, Inc

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Stanley Consultants
 PRIME/SUPPLEMENT PRIME
 Prepared By Tyler Grau

DATE 09/07/23
 PTB-ITEM# 184

CONTRACT TERM 36 MONTHS
 START DATE 3/1/2020
 RAISE DATE 4/1/2020
 END DATE 2/28/2023

OVERHEAD RATE 168.56%
 COMPLEXITY FACTOR 0
 % OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	3/1/2020	4/1/2020	1	2.78%
1	4/2/2020	4/1/2021	12	34.33%
2	4/2/2021	4/1/2022	12	35.36%
3	4/2/2022	3/1/2023	11	33.39%

The total escalation = 5.86%

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment

Prepared By: Consultant

FIRM
PTB-ITEM #
PRIME/SUPPLEMENT

Stanley Consultants
184
PRIME

OVERHEAD RATE 168.56%
COMPLEXITY FACTOR 0

DATE 09/07/23

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Intersection Phase II/III	2222	100,608	169,585		37,225		-	307,418	100.00%
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Attachment #2

Intersection Phase II CECS
Extended 66-Month Schedule

Stanley Consultants, Inc

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Stanley Consultants
 PRIME/SUPPLEMENT PRIME
 Prepared By Tyler Grau

DATE 09/07/23
 PTB-ITEM# 184

CONTRACT TERM 66 MONTHS
 START DATE 3/1/2020
 RAISE DATE 4/1/2020
 END DATE 8/31/2025

OVERHEAD RATE 168.56%
 COMPLEXITY FACTOR 0
 % OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	3/1/2020	4/1/2020	1	1.52%
1	4/2/2020	4/1/2021	12	18.73%
2	4/2/2021	4/1/2022	12	19.29%
3	4/2/2022	4/1/2023	12	19.87%
4	4/2/2023	4/1/2024	12	20.46%
5	4/2/2024	4/1/2025	12	21.08%
6	4/2/2025	9/1/2025	5	9.05%

The total escalation = 9.99%

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment

Prepared By: Consultant

FIRM
PTB-ITEM #
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OVERHEAD RATE 168.56%
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DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Intersection Phase II/III	2222	104,296	175,801		38,589		-	318,686	100.00%
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Attachment #3

Resurfacing / Culvert Project
Additional Scope CECS

Stanley Consultants, Inc

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Stanley Consultants
 PRIME/SUPPLEMENT PRIME
 Prepared By Tyler Grau

DATE 09/07/23
 PTB-ITEM# 184

CONTRACT TERM 36 MONTHS
 START DATE 3/1/2020
 RAISE DATE 4/1/2020
 END DATE 2/28/2023

OVERHEAD RATE 168.56%
 COMPLEXITY FACTOR 0
 % OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	3/1/2020	4/1/2020	1	2.78%
1	4/2/2020	4/1/2021	12	34.33%
2	4/2/2021	4/1/2022	12	35.36%
3	4/2/2022	3/1/2023	11	33.39%

The total escalation = 5.86%

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment

Prepared By: Consultant

FIRM
PTB-ITEM #
PRIME/SUPPLEMENT

Stanley Consultants
184
PRIME

OVERHEAD RATE 168.56%
COMPLEXITY FACTOR 0

DATE 09/07/23

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Add'l Scope - Resurfacing	16	831	1,401		307		-	2,539	14.65%
	Add'l Scope - Culvert	96	4,840	8,159		1,791		-	14,790	85.35%
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Attachment #4

Work Hours Additional Scope /
Balancing - Intersection Phase I / II

Stanley Consultants, Inc

Lake County Division of Transportation
Section # 19-00125-07-CH
Kenosha Rd at 21st St
Work-hour and Direct Cost Estimate

TASK & DESCRIPTION	WORK HOURS	SUPPLEMENT #2		DIRECT COST
		Removed scope	Additional Scope	
1 Data Collection and Evaluation				
Data Collection Lake County GIS, Land Use, Zoning, School, Park, Fire and etc.	4			\$0.00
Review and Analyze Data from the County Record Plans, Traffic Counts, Existing R.O.W., Bicycle and other information from CMAP and locals, etc.	4			\$0.00
Field trips to area (includes taking photos & topo check) 2 trips x 6 hours/trip x 2 persons	24			\$100.00
Traffic Counts and Field Observations Field Observation (2 people x 4 hrs x 1 visit) during one of the above field trips	8			\$0.00
<u>Existing Traffic Estimation Technical Memorandum (Supplement #1)</u> Review existing data, develop methodology, rebalance school trips, prepare technical memorandum	32			
<u>Prepare 2020 24-hour traffic volumes (Supplement #1)</u>	4			
SUBTOTALS =	76	0	0	\$100.00
2 Topographic Survey				
Provided by HBK Engineering, Ltd (See Attached CECS)	0			\$0.00
SUBTOTALS =	0	0	0	\$0.00
3 Environmental Studies and Permitting				
Section 404 Permitting Wetland Delineation and Report	40			\$900.00
IDNR - OWR Correspondence	4			\$550.00
<u>Environmental Survey Request (includes site visit / photo log) (Supplement #1)</u>	36			\$104.00
<u>Wetland Impact Exhibit (Supplement #1)</u>	8			
Lake County Watershed Development Ordinance Application <u>(additional effort based on labor needed for culvert project)</u>	10		12	\$0.00
NPDES Stormwater (SWPP) Notice of Intent	40			\$250.00
Endangered Species (IDNR - EcoCAT and IPaC)	6			\$0.00
PESA	40			\$1,000.00
<u>PESA Update</u>			16	\$750.00
SUBTOTALS =	184	0	28	\$3,554.00
4 Public Involvement				
Draft initiation letters to property owners & City w/ exhibits 4 property owners + City of Zion + Village of Beach Park @ 2 hrs /each	12			\$0.00
Stakeholder Involvement with the Zion - Benton Twp High School Develop Circulation Exhibits (Two alternatives) - <u>Does not appear needed</u>	32	-32		
<u>Roundabout Safety & Education Exhibits / Coordination with ZBTHS</u>			16	\$25.00
Attend three meetings (2 people x 6 hours)	36			
Attend three dry-run meetings (2 people x 4 hours)	24			
Preparation of Existing Conditions Public Meeting materials Postcards / Advertising	32			\$250.00
Meeting Handout	32			
Display exhibits (Introduction, Location Map, ADT, Crash Summary, etc.)	32			
Attendance at dry run for Existing Conditions Public Meeting 2 people x 4 hours	8			
Field check and secure location for public meeting	8			
Meeting with Public to present Existing Conditions 1 meeting x 3 people x 6 hours / meeting	18			
Preparation of Concept Alternatives / Preferred Public Meeting materials Postcards / Advertising	16			\$250.00
Meeting Handout	16			
Display exhibits (Introduction, Location Map, ADT, Crash Summary, Typical Sections, Alternatives, Schedule, etc.)	24			\$350.00

Lake County Division of Transportation
 Section # 19-00125-07-CH
 Kenosha Rd at 21st St
 Work-hour and Direct Cost Estimate

TASK & DESCRIPTION	WORK HOURS	SUPPLEMENT #2		DIRECT COST
		Removed scope	Additional Scope	
Attendance at "Dry Run" for Concept Alternatives / Preferred Public Meeting 2 people x 4 hours	8			\$32.00
Attendance at Public Meeting 1 meeting x 3 people x 6 hours / meeting	18			\$50.00
Preparation of newsletter and/or draft response letters for each public meeting	60			
Website Operation, Content and Updates (Up to 4 years of maintenance)	32			\$4,800.00
Duration of website maintance extended for two years			16	\$2,400.00
SUBTOTALS =	408	-32	32	\$8,157.00
5 Crash and Safety Analysis				
Review crash data and summarize (For 5 years of data) 4 hrs / intersection	16			\$0.00
Safety analysis and counter measures	24			\$0.00
SUBTOTALS =	40	0	0	\$0.00
6 Capacity Analysis and Intersection Design Studies				
Traffic Signal Warrant Analysis 4 hours x 2 intersections	8			\$0.00
HCS Capacity Analysis 4 hours x 2 peak periods x 2 intersections	16			\$0.00
RODEL analysis 4 hours x 2 peak periods x 2 intersections	16			\$0.00
Traffic Analysis Memo Update (2021 traffic data)			32	
Intersection Design Studies 1 roundabout intersection x 100 hrs / intersection - add'l time for comments Comment review and updates			100	
2 intersections x 40 hrs / intersection	80	-80	16	\$0.00
SUBTOTALS =	120	-80	148	\$0.00
7 Geometric Studies				
Develop Design Criteria	4			\$0.00
Determine Facility Deficiencies	8			\$0.00
Develop concept alternatives - geometry to evaluate impacts Kenosha Rd at 21st St - One signal and one roundabout at 60 hrs each	120			\$0.00
Two sub alternatives for alternative alignments / widenings @ 40 hrs each Profile and alignment adjustments of preferred to reduce comp storage	80		80	\$0.00
21st St at Main School Ent - One signal and one roundabout at 60 hrs each	120	-80		\$0.00
Two sub alternatives for alternative alignments / widenings @ 40 hrs each Reallocate for potential shift in alignment to further reduce impacts	80	-80	80	\$0.00
Kenosha Rd at ZB Way - Lane channelization and 3-lane extension Preferred Alternative Technical Memorandum	40		80	\$0.00
Plan & Profile for the Preferred Alternative: Project length = 5,700 feet. One 1" = 20' sheet = 600'. 5700/600' = 10 sheets. 10 Sheets x 20 WH/sheet	200			\$0.00
Cross-section Studies for the Preferred Alternative to develop ROW needs Includes test cross-sections in critical areas and final cross-sections at every 50' plus cross streets and driveways 100 cross sections at 1 hours/ cross section	60		40	\$0.00
Typical Cross-sections 8 typical cross-sections x 4 WH/section (EX & PR)	32			\$0.00
Plot Proposed R.O.W. Line (including stations and offsets for all break points)	8			\$0.00
SUBTOTALS =	752	-160	280	\$0.00

Lake County Division of Transportation
Section # 19-00125-07-CH
Kenosha Rd at 21st St
Work-hour and Direct Cost Estimate

TASK & DESCRIPTION	WORK HOURS	SUPPLEMENT #2		DIRECT COST
		Removed scope	Additional Scope	
8 Drainage Studies				
Storm Sewer Televising				
Review DVD and prepare recommendations w/ exhibits	24			\$0.00
Existing Drainage System				
General Location Drainage Map Concept Drainage Exhibit			24	
Existing Drainage Plan (1 sht / approach)	48			\$0.00
Identified Drainage Problems	4		12	\$0.00
Major Drainage Features - Review of SW Reports and Outlet Determination			32	
Floodplain Boundary Determination			40	
Proposed Drainage System				
Design Criteria - Additional effort needed due to adjacent systems	4		12	\$0.00
Outlet Evaluation - Additional effort needed due to adjacent systems	4		12	\$0.00
Storm Sewer Capacity (HGL)	16			\$0.00
Stormwater Detention Analysis	16			\$0.00
Cross Section Review	16			\$0.00
Proposed Drainage Plan (1 sht / approach)	80			\$0.00
Temporary Drainage Connections (Identify)	8			\$0.00
Control Structure Exhibit	4			\$0.00
Compensatory Storage Determination			64	
Draft LDS Technical Memorandum				
Narrative	N/A		20	\$0.00
Water Quality BMP White Paper	N/A		16	\$0.00
Erosion and Sediment Control Data References	N/A		8	\$0.00
Tabulate Calculations	N/A		24	\$0.00
Wetland / FIRM Exhibits	N/A		4	\$0.00
Study Assembly	N/A		4	\$0.00
Final LDS Technical Memorandum				
Revisions / Disposition	N/A		16	\$0.00
Study Assembly	N/A		4	\$0.00
SUBTOTALS =	224	0	292	\$0.00
9 Cost Estimates				
Prepare preliminary cost estimates for 2 alternatives	32		0	\$0.00
2 alternatives @ 16 hrs / alternative				
SUBTOTALS =	32	0	0	\$0.00
10 Contract Documents				
Plan Preparation				
See breakdown of hours on attached Sheet Hours	2070			\$718.00
Additional hours for updated sheet requirements for roundabout design			130	
Specifications				
Develop project specific special provisions	60			\$225.00
Cost Estimate				
Prefinal	20			\$0.00
Final	20			\$0.00
Milestone Submittals				
Prefinal, Final, Bid @ 8 hrs each - includes disposition and assembly			24	
SUBTOTALS =	2170	0	154	\$943.00

Lake County Division of Transportation
 Section # 19-00125-07-CH
 Kenosha Rd at 21st St
 Work-hour and Direct Cost Estimate

TASK & DESCRIPTION	WORK HOURS	SUPPLEMENT #2		DIRECT COST
		Removed scope	Additional Scope	
11 Meetings and Coordination				
City of Zion Meetings Kickoff Meeting (2 people x 4 hours) Present Alternatives (2 people x 4 hours) <i>(Anticipate only electronic comm.)</i>	16	-8		\$0.00
LCDOT Meetings Pre-boring geotech meeting (1 person x 4 hours) Post-boring geotech meeting (1 person x 4 hours) Present Alternatives (2 people x 4 hours) Present Preferred Geometry (2 people x 4 hours)	24			\$64.00
Village of Beach Park Meetings Kickoff Meeting (2 people x 4 hours) Present Alternatives (2 people x 4 hours) <i>(Anticipate only electronic comm.)</i>	16	-8		\$0.00
LCSMC 2 people x 4 hours x 3 meeting <i>2 people x 4 hours x 1 meeting - anticipate 1 additional meeting</i>	24		8	\$0.00
Preliminary, ROW, and Prefinal Plans Review Meeting 2 people x 4 hours x 3 meeting	24			\$64.00
SUBTOTALS =	104	-16	8	\$128.00
12 Phase III Assistance				
Respond to RFI (Assume 4 hrs / month for 6 months)	24			\$0.00
Shop Drawing Review	16			\$0.00
Utility Permit Review	8			\$0.00
Preconstruction Meeting (1 person x 4 hrs)	4			\$32.00
<i>Construction Open House (up to 2 attendees plus exhibit prep)</i>			16	\$100.00
SUBTOTALS =	52	0	16	\$132.00
13 Administration and Management				
Administration (4 hrs/month x 36 months)	144			\$0.00
<i>Administration (4 hrs/month x 24 months)</i>			96	\$0.00
SUBTOTALS =	144	0	96	\$0.00
14 QA/QC				
Review of milestone submittals (3% of total)	124		22	\$0.00
SUBTOTALS =	124	0	22	\$0.00
TOTAL =	4430	-288	1076	\$13,014.00
		788		
		Additional hours		

Attachment #5

**Cost Estimate of Consultant Services
(CECS) with current OH and Payroll**

Supplement #2

**Stanley Consultants, Inc
(Includes subconsultants)**



Local Public Agency Lake County Division of Transportation	County Lake	Section Number 19-00125-07-CH
Prime Consultant (Firm) Name Stanley Consultants, Inc.	Prepared By Tyler Grau	Date 5/4/2023
Consultant / Subconsultant Name 	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

PAYROLL ESCALATION TABLE

CONTRACT TERM	24	MONTHS	OVERHEAD RATE	184.14%
START DATE	6/1/2023		COMPLEXITY FACTOR	0
RAISE DATE	4/1/2024		% OF RAISE	2.00%
END DATE	5/31/2025			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	6/1/2023	4/1/2024	10	41.67%
1	4/2/2024	4/1/2025	12	51.00%
2	4/2/2025	6/1/2025	2	8.67%

The total escalation = 1.34%

Local Public Agency County **Section Number**

Lake County Division of Transportation Lake 19-00125-07-CH

Consultant / Subconsultant Name **Job Number**

PAYROLL RATES

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

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	1.34%

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Regional Manager	\$86.00	\$86.00
Client Services Manager	\$86.00	\$86.00
Department Manager	\$86.00	\$86.00
Principal Engineer	\$80.35	\$81.42
Senior Engineer	\$64.52	\$65.38
Senior Environmental Planner	\$59.62	\$60.42
Senior Environmental Scientist	\$58.00	\$58.78
Senior Transportation Planner	\$55.29	\$56.03
Engineer	\$48.80	\$49.45
Engineer-In-Training II	\$41.49	\$42.04
Engineer-In-Training I	\$31.49	\$31.91
Senior Resident Project Representative	\$73.82	\$74.81
Resident Project Representative	\$53.46	\$54.17
ECM Consultant	\$64.38	\$65.24
Specialist	\$32.21	\$32.64
Designer	\$52.96	\$53.67
GIS Coordinator	\$50.19	\$50.86
Senior Technician	\$42.14	\$42.70
Senior Administrative Assistant	\$31.97	\$32.40
Administrative Assistant	\$29.86	\$30.26
Engineering Student Intern	\$25.00	\$25.33

Local Public Agency
 Lake County Division of Transportation
Consultant / Subconsultant Name

County
 Lake

Section Number
 19-00125-07-CH
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			\$0.00
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
Utility 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
See Workhours Breakdown		1	\$13,014.00	\$13,014.00
Less Original Scope Direct Costs		1	-\$8,273.00	-\$8,273.00
				\$0.00
				\$0.00
TOTAL DIRECT COSTS:				\$4,741.00

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

19-00125-07-CH

Consultant / Subconsultant Name

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Additional Scope			Huff & Huff / GZA			Wang / Terracon			HBK Engineering, Ltd					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Regional Manager	86.00	0.0																	
Client Services Manager	86.00	0.0																	
Department Manager	86.00	24.0	3.05%	2.62	24	3.05%	2.62												
Principal Engineer	81.42	60.0	7.61%	6.20	60	7.61%	6.20												
Senior Engineer	65.38	136.0	17.26%	11.28	136	17.26%	11.28												
Senior Environmental Planner	60.42	0.0																	
Senior Environmental Scientist	58.78	0.0																	
Senior Transportation Planner	56.03	0.0																	
Engineer	49.45	164.0	20.81%	10.29	164	20.81%	10.29												
Engineer-In-Training II	42.04	160.0	20.30%	8.54	160	20.30%	8.54												
Engineer-In-Training I	31.91	140.0	17.77%	5.67	140	17.77%	5.67												
Senior Resident Project Representative	74.81	0.0																	
Resident Project Representative	54.17	0.0																	
ECM Consultant	65.24	0.0																	
Specialist	32.64	0.0																	
Designer	53.67	80.0	10.15%	5.45	80	10.15%	5.45												
GIS Coordinator	50.86	0.0																	
Senior Technician	42.70	0.0																	
Senior Administrative Assistant	32.40	0.0																	
Administrative Assistant	30.26	24.0	3.05%	0.92	24	3.05%	0.92												
Engineering Student Intern	25.33	0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		788.0	100%	\$50.97	788.0	100.00%	\$50.97	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

Attachment #6

Scope of Services and Cost Estimate
of Consultant Services (CECS)

Supplement #2

HBK Engineering, LLC

May 1, 2023

Tyler H. Grau, P.E.
Principal Transportation Engineer
Stanley Consultants
8501 W. Higgins Road, Suite 730
Chicago, IL 60631

Re: Lake County DOT - Additional Scope and Fee
Kenosha Road and 21st Street, Zion, IL

Dear Tyler,

HBK Engineering, LLC, is pleased to present this additional work scope to Stanley Consultants (Stanley). This contract increase is the result of project delays to the intersection improvements task. HBK's scope was originally to be completed in November 2022. This supplement will cover an additional 18 months of Utility Coordination PH2 to bring the current scope through May 2024. This supplement also includes the potential for additional survey work with CAD processing.

The total cost estimate is \$15,714.43.

With Stanley and Lake County DOT's approval, HBK requests the increase of the contract upper limit value from \$312,573.53 to \$328,287.96.

Please contact me if there are any questions. Thank you for the opportunity to provide these services.

Sincerely,



Dan Zeman, PE CAPM
Senior Project Manager

Attachments:

- Stanley_LCDOT_FeeEst_AdditionalDuration_DZ_05012023

cc: Bethany Turk, PE

Project File

(Stanley_LCDOT_Kenosha&21st_HBK_195332-CoverLtr_05012023.DOC)

HBK ENGINEERING, LLC - LCDOT SECTION 19-00125-07-CH CULVERT REHAB - HOURS/FEES SCHEDULE

Route: KENOSHA ROAD AT 21ST STREET
 Local: LAKE COUNTY DOT
 (Municipality/Township/County)
 Section: 19-00125-07-CH
 Project: Intersection Improvements
 Job No: (HBK 20-0290)

*Firm's approved rates on file with Bureau of Accounting and Auditing:	
Overhead Rate (OH)	118.48%
Complexity Factor (R)	0.00
Calendar Days	

Cost Plus Fixed Fee Methods of Compensation:

- Fixed Fee 1 14.5%[DL + R(DL) + OH(DL) + IHDC]
 Fixed Fee 2 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
 Fixed Fee 3 14.5%[(2.3 + R)DL + IHDC]
 Specific Rate 10%(DL + (OH*DL))
 Lump Sum

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total	Section Sub-totals
Utility Coordination	SENIOR PROJECT MANAGER	24	\$ 72.25	\$ 1,734.00	\$ 2,054.44				\$ 549.32	\$ 4,337.77	
	PROJECT MANAGER	24	\$ 59.62	\$ 1,430.88	\$ 1,695.31				\$ 453.30	\$ 3,579.48	
	PROJECT ENGINEER	36	\$ 38.46	\$ 1,384.56	\$ 1,640.43				\$ 438.62	\$ 3,463.61	
											\$ 11,380.86
Additional Survey Work	PROJECT MANAGER	4	\$ 59.62	\$ 238.48	\$ 282.55				\$ 75.55	\$ 596.58	
	PROFESSIONAL LAND SURVEYOR	4	\$ 59.74	\$ 238.96	\$ 283.12				\$ 75.70	\$ 597.78	
	FIELD LEAD	16	\$ 38.15	\$ 610.40	\$ 723.20				\$ 193.37	\$ 1,526.97	
	FIELD TECHNICIAN	16	\$ 25.34	\$ 405.44	\$ 480.37				\$ 128.44	\$ 1,014.25	
	DESIGNER I	8	\$ 29.88	\$ 239.04	\$ 283.21				\$ 75.73	\$ 597.98	\$ 4,333.56
Totals		132.00		\$ 6,281.76	\$ 7,442.63	\$ -	\$ -	\$ -	\$ 1,990.04	\$ 15,714.43	\$ 15,714.43

NOTES:

BLR 05611 (Rev. 11/09/17)
 Printed on 04/26/2023

Attachment #7

Scope of Services and Cost Estimate of Consultant Services (CECS)

Supplement #2

Huff & Huff / GZA



A Subsidiary of GZA



April 25, 2023

Ms. Laura Brandt
Project Manager
Stanley Consultants
8501 West Higgins Road
Chicago, Illinois 60631

Via Email: BrandtLaura@stanleygroup.com

**Re: Wetland Science Services Supplement #1
21st Street at Kenosha Road Intersection Improvements
Zion and Beach Park, Lake County, Illinois
Proposal No. 81.P013020.24**

Dear Ms. Brandt:

Huff & Huff, Inc., a subsidiary of GZA, Inc. (H&H/GZA), is pleased to submit this proposal to Stanley Consultants (Stanley) to conduct supplemental wetland science services for the Lake County Division of Transportation (LCDOT) 21st Street at Kenosha Road Intersection Improvements project located in Zion and Beach Park, Lake County, Illinois. Proposed services are presented in a series of optional tasks including updating the field delineation that was originally completed for this project in 2020 by H&H/GZA, preparing the associated wetland delineation report, as well as obtain the Preliminary Jurisdictional Determination (PJD) and Boundary Verification (BV) from the Lake County Stormwater Management Commission (LCSMC) to be used to permitting purposes. This proposal presents our: Project Understanding; Scope of Services; Level of Effort, Costs, and Schedule; and Proposal Acceptance for completing the project. Costs, and Terms and Conditions are presented as attachments.

1. PROJECT UNDERSTANDING

H&H/GZA understands that Stanley has been retained by LCDOT to perform transportation design, stormwater engineering, and natural resource services for the 21st Street at Kenosha Road Intersection Improvements project. This is also referred to as the 21st Street Project Segment 2, which includes reconfiguration and reconstruction of the 21st Street at North Kenosha Road intersection. This project includes the intersection legs of 21st Street between Sunnyside Drive and Horizon Court, and North Kenosha Road between Shepherd's Crossing Drive and Highland Drive. The Project Corridor includes the roadway right-of-way (ROW), plus an additional 100 feet per the Lake County Watershed Development Ordinance (WDO) requirements.

In preparing this proposal, H&H/GZA has made the following assumptions and comments:

- The Project Limits are those previously used by H&H/GZA for completion of the field delineations in 2020;
- The Project is not a state funded or state pass-through funded project and does not need to comply with the Illinois Interagency Wetland Policy Act (IWPA) of 1989 requirements;
- The Project is located in Zion and Beach Park in Lake County, which are not LCSMC Certified Communities;
- Access to areas within and immediately adjacent to the Project Corridor to conduct field investigations will be provided by Stanley;

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

915 Harger Road
Suite 330
Oak Brook, IL 60523
T: 630.684.9100
F: 630.684.9120
www.huffnhuff.com
www.gza.com



- Tree surveys have not been included in this scope of work;
- State and federal, threatened and endangered species consultations are not included in this scope of work;
- Lake County WDO Permitting and USACE Chicago District permitting are not included in this scope of work;
- Wetland mitigation banking coordination is not included in this scope of work;
- Wetland mitigation design, plan preparation, monitoring, or management services are not included in this scope of work; and
- Permit submittal fees are not included in this proposal and are the responsibility of Stanley and/or LCDOT.

1. SCOPE OF SERVICES

Task 1 – Wetland Delineation Update/Survey of Wetlands

The previously completed field delineation completed in June of 2020 will be updated, if necessary, prior to the anticipated permit submittal date to assess the current site conditions as well as to obtain data, survey and flag the boundaries of the 10 wetlands, 1 surface waters, and 5 constructed stormwater features to obtain the PJD/BV from LCSMC. Note, according to the Lake County WDO, delineations must be completed within three (3) years of the initial permit application date. Because regulated wetlands and surface waters are located within and adjacent to the Project Corridor, H&H/GZA proposes to conduct a wetland delineation update for all areas within the limits of the Project Corridor to determine if any changes have occurred since the time of the original delineation in accordance with:

- The February 25, 2022, edition of the USACE Chicago District Nationwide Permit Program (NWP);
- The USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), (Supplemental Wetland Manual); and
- The October 13, 2020, edition of the Lake County Watershed Development Ordinance (WDO).

A. Off-site Record/Document Review

The following records/documents will be reviewed prior to conducting the field investigation. Soils information will be reviewed to determine the soil types encountered during the delineation procedures. Sources to be reviewed and utilized include:

- Current and Historic Aerial Photographs;
- U.S. Geological Survey (USGS), Topographic Map;
- U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Maps;
- Lake County Wetland Inventory Maps;
- Lake County Advanced Identification of Wetlands (ADID) Maps;
- Natural Resources Conservation Service (NRCS), Soil Survey of Lake County;
- Hydric Soils of the United States;
- Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps (FIRM); and
- USGS, Hydrologic Atlas.

Actively farmed agricultural land is not present within the project limits; however, agricultural land is present within 100 feet of the Project Corridor. Therefore, completing a farmed wetland determination (FWD) is anticipated to be required and is included within this scope of services.



B. On-Site Investigation (Field Inventory)

Consultant proposes to conduct on-site investigations of all wetlands and waterways within the Project Corridor. Proposed services include the identification and delineation of wetlands and surface waters.

Wetland delineation field investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. A floristic quality assessment (FQA) will be conducted for each identified wetland. Functions of wetlands based on field observations will also be evaluated during the on-site investigation. Surface waters delineation field activities include the determination of the Ordinary High-Water Mark (OHWM) of identified waterways. H&H/GZA will also estimate wetlands and/or surface waters boundaries present within 100 feet of the project limits. This is necessary to determine buffer boundaries that may extend into the project limits. H&H/GZA will survey the boundaries of delineated wetlands and surface waters and will provide global positioning system (GPS) data for wetland and surface waters boundaries.

Field delineations will be completed within the designated growing season for Lake County, which is between May 15 and October 1. Delineations conducted outside this timeframe may be considered preliminary and insufficient for permitting purposes. If the delineation is completed outside of the growing season, additional field visits will be required, which are not included in this scope.

Task 2 – Wetland Report

Upon completion of Task 2, a Wetland Delineation Report will be prepared summarizing the findings of the off-site record/document review and the on-site investigation. This report will be submitted to Stanley as a PDF only. The shapefiles of the wetland boundaries as surveyed in the field will also be provided to Stanley via email. Specific items to be included in the report are as follows:

- Map showing the location, limits, and wetland and surface waters boundaries within the Project Corridor;
- Aerial photography depicting the appropriate limits of the delineated wetlands and surface waters;
- USACE data sheets with FQAs, as required;
- Color photos of the wetlands and the data points; and
- Written description of wetland functional classification.

The wetland and surface waters/waterway boundary map will be derived from the GPS survey of these features. Shapefiles for the surveyed areas will be provided to Stanley digitally. The wetland and surface waters/waterway layers will be separated for use by Stanley for their construction drawings.

Task 3 – Preliminary Jurisdictional Determination/Boundary Verification

This task includes preparing the PJD/BV submittal and formally requesting a PJD/BV through the LCSMC for all identified wetlands, waterways/surface waters, and constructed stormwater features.

Time under this task includes one field meeting with the LCSMC for completion of the PJD/BV. Time to flag all delineated wetlands, waterways/surface waters, and constructed stormwater features for the BV is included under Task 1. Time under this task includes revising the wetland report, if boundaries are revised during the field PJD/BV meeting based on input received from the LCSMC. Fees associated with this PJD/BV are not included in this scope and are the responsibility of Stanley.



Task 4 – QAQC

Time is included for internal QA/QC of the project deliverables as described above.

Task 5 – Project Management

Time has also been included for project administration and management activities that include cost and schedule tracking, coordination with Stanley on authorized activities, document production and other in-house management activities. This task includes preparing a Health and Safety Plan as appropriate for the project and tasks therein.

2. PROJECT COSTS

The project costs for the proposed tasks are included on the attached spreadsheets.

3. LEVEL OF EFFORT AND SCHEDULE

The wetland and surface waters delineation will be completed during the growing season, approximately between May 15 and October 1, with an anticipated completion of the Wetland Delineation Report within six weeks of field work. Completion of the PJD/BV and permitting services are dependent on Stanley's needs and schedules. If an expedited schedule is necessary, Consultant will coordinate with Stanley to establish a schedule that is appropriate for the project needs.

4. TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

Conditions of Engagement

The conditions of engagement are described in the attached Terms and Conditions for Professional Services. H&H/GZA's report will be prepared on behalf of and for the exclusive use of Stanley. Stanley acknowledges and agrees that the report and the findings in the report shall not, in whole or in part, be disseminated or conveyed to any other party, or used or relied upon by any other party, in whole or in part, except for the specific purpose and to the specific parties alluded to above, without the written consent of H&H/GZA. H&H/GZA would be pleased to discuss the conditions associated with any additional dissemination, use, or reliance by other parties.

Acceptance

This agreement may be accepted by signing in the appropriate space below and returning one complete copy to H&H/GZA. This proposal is valid for a period of 60 days from the date of issue.

We appreciate the opportunity to submit this proposal. Please feel free to contact the undersigned at (630) 684-4425 with any questions.

Very truly yours,
Huff & Huff, Inc./GZA, Inc.

Baron Stuedemann, P.E., P.W.S.
Associate Principal

Attachments: Terms and Conditions



Local Public Agency Lake County Division of Transportation	County Lake	Section Number
Prime Consultant (Firm) Name Stanley Consultants	Prepared By LRR	Date 4/25/2023
Consultant / Subconsultant Name Huff & Huff, Inc. / GZA, Inc.	Job Number TBD	

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	12	MONTHS	
START DATE	5/15/2023		
RAISE DATE	3/1/2024		
END DATE	5/14/2024		

OVERHEAD RATE	190.00%
COMPLEXITY FACTOR	0
% OF RAISE	2.00%

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	5/15/2023	3/1/2024	10	83.33%

The total escalation = 0.33%

Local Public Agency**County****Section Number**

Lake County Division of Transportation

Lake

Consultant / Subconsultant Name**Job Number**

Huff & Huff, Inc. / GZA, Inc.

TBD

PAYROLL RATES

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

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	0.33%

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Associate Principal III	\$78.95	\$79.21
Associate Principal II	\$72.15	\$72.39
Associate Principal I	\$68.96	\$69.19
Senior Consultant II	\$78.93	\$79.19
Senior Consultant I	\$43.23	\$43.37
Senior Project Manager III	\$68.98	\$69.21
Senior Project Manager II	\$57.05	\$57.24
Senior Project Manager I	\$53.92	\$54.10
Senior Landscape Architect	\$59.54	\$59.74
Senior Planning PM	\$56.62	\$56.81
Senior Technical Specialist I	\$55.05	\$55.23
Senior Scientist PM II	\$57.08	\$57.27
Senior Technical Scientist	\$54.50	\$54.68
Scientist PM II	\$50.19	\$50.36
Scientist PM I	\$42.59	\$42.73
Assistant PM Scientist	\$37.61	\$37.74
Environmental Engineer PM II	\$49.99	\$50.16
Environmental Engineer PM I	\$45.00	\$45.15
Geotechnical Engineer PM I	\$48.28	\$48.44
Assistant PM Engineer I	\$44.19	\$44.34
Engineer II	\$30.25	\$30.35
Engineer I	\$34.27	\$34.38
Scientist S1	\$31.72	\$31.83
Technical Graphics Technician	\$25.96	\$26.05
Administrative Manager	\$48.89	\$49.05
Senior Administrative Assistant	\$34.50	\$34.62
Lead Word Processor	\$42.39	\$42.53

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number

Consultant / Subconsultant Name

Huff & Huff, Inc. / GZA, Inc.

Job Number

TBD

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	330	\$0.66	\$216.15
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	3	\$6.80	\$20.40
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
Utility 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
Driller	Daily Rate - Actual Cost			\$0.00
PID	Daily Rate			\$0.00
Field Kit (expendible materials)	Daily Rate			\$0.00
GPS to locate borings	Daily Rate			\$0.00
TOTAL DIRECT COSTS:				\$236.55

Local Public Agency

Lake County Division of Transportation

County

Lake

Section Number**Consultant / Subconsultant Name**

Huff & Huff, Inc. / GZA, Inc.

Job Number

TBD

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE COMPLEXITY FACTOR

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Task 1: Wetland Update/Survey	237	14	766	1,455	253		2,474	22.74%
Task 2: Wetland Report		33	1,247	2,369	411		4,027	37.02%
Task 3: PJD/BV		13	682	1,296	225		2,203	20.25%
Task 4: Project Management		5	291	553	96		940	8.64%
Task 5: QA/QC		5	309	587	102		998	9.17%
			-	-	-		-	
Subconsultant DL							\$0.00	
Direct Costs Total ==>	\$236.55						\$236.55	2.17%
TOTALS		70	3,295	6,260	1,087	-	10,879	100.00%

9,555

Local Public Agency

Lake County Division of Transportation

Consultant / Subconsultant Name

Huff & Huff, Inc. / GZA, Inc.

County

Lake

Section Number

Job Number

TBD

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

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Task 1: Wetland Update/Survey			Task 2: Wetland Report			Task 3: PJD/BV			Task 4: Project Management			Task 5: QA/QC		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Associate Principal III	79.21	0.0																	
Associate Principal II	72.39	3.0	4.29%	3.10										1	20.00%	14.48	2	40.00%	28.96
Associate Principal I	69.19	0.0																	
Senior Consultant II	79.19	0.0																	
Senior Consultant I	43.37	0.0																	
Senior Project Manager III	69.21	0.0																	
Senior Project Manager II	57.24	0.0																	
Senior Project Manager I	54.10	0.0																	
Senior Landscape Architect	59.74	0.0																	
Senior Planning PM	56.81	0.0																	
Senior Technical Specialist I	55.23	0.0																	
Senior Scientist PM II	57.27	0.0																	
Senior Technical Scientist	54.68	43.0	61.43%	33.59	14	100.00%	54.68	10	30.30%	16.57	12	92.31%	50.48	4	80.00%	43.75	3	60.00%	32.81
Scientist PM II	50.36	0.0																	
Scientist PM I	42.73	0.0																	
Assistant PM Scientist	37.74	0.0																	
Environmental Engineer PM II	50.16	0.0																	
Environmental Engineer PM I	45.15	0.0																	
Geotechnical Engineer PM I	48.44	0.0																	
Assistant PM Engineer I	44.34	0.0																	
Engineer II	30.35	0.0																	
Engineer I	34.38	0.0																	
Scientist S1	31.83	16.0	22.86%	7.27				16	48.48%	15.43									
Technical Graphics Technician	26.05	7.0	10.00%	2.60				6	18.18%	4.74	1	7.69%	2.00						
Administrative Manager	49.05	0.0																	
Senior Administrative Assistant	34.62	1.0	1.43%	0.49				1	3.03%	1.05									
Lead Word Processor	42.53	0.0																	
TOTALS		70.0	100%	\$47.07	14.0	100.00%	\$54.68	33.0	100%	\$37.79	13.0	100%	\$52.48	5.0	100%	\$58.22	5.0	100%	\$61.77

Attachment #8

Scope of Services and Cost Estimate
of Consultant Services (CECS)

Supplement #2

Wang Engineering

April 27, 2023

Mr. Tyler Grau, P.E.
Stanley Consultants, Inc.
8501 W Higgins Road
Suite 730
Chicago IL 60631-2815

Re: Supplemental Proposal for Geotechnical and Environmental Engineering Services
21st Street from Delany Road to IL Rte 173 – Phase 2
Rehabilitation of 21st Street and Kenosha Road Intersection
Lake County
Wang PKE235115

Dear Mr. Grau:

Wang Engineering, Inc. (Wang) is pleased to submit this supplemental proposal for geotechnical and environmental engineering services to support the rehabilitation of the 21st Street from Delany Road to IL 173. The proposed improvements include roadway widening and realignment, new turn lines, new roundabout, new lighting, new sign structures, extension of two existing culverts, new multi-use path, new detention area. These improvements represent additional work to the Lake County Scope of Work for Section 19-00125-07-CH dated November 11, 2019 and for Section 19-00999-68-RS dated December 5, 2019.

SCOPE OF WORK

The proposed improvements require geotechnical evaluation for the pavement rehabilitation and roadway widening and reconstruction of 21st Street from Sunnyside Drive to Horizon Court, environmental assessment for soil disposal, and coordination with landfill facilities for soil disposal. Wang will perform geotechnical and environmental soil sampling at locations approved by Stanley. The proposed borings will serve multiple purposes: subgrade (SGB), sign, lighting, and culvert structures (SB, LPB, CUL), and environmental (CCDD). Specifically, we will drill and sample:

1. Ten soil borings to 10 feet for roadway reconstruction;
2. Seven soil borings to 15 feet for roadway and structures;
3. Nine borings to 20 feet for structures; and
4. Forty-two soil samples for environmental assessment.

The proposed geotechnical investigation and boring locations are shown on attached Proposed Boring Location Plan.

Drilling and Sampling

Wang will provide equipment, labor, and associated materials to drill, sample, and test an estimated 385 feet of soil in 26 boreholes. The soil borings will be advanced with truck- or ATV-mounted rigs equipped with hollow stem augers or portable drilling equipment (hand augers). Seven multipurpose soil borings will be sampled in continuous 2.0-foot intervals to 10 feet and at 2.5-foot intervals to their terminating depths. The structure borings will be sampled at 2.5-foot intervals to their termination depths. The 42 environmental samples will be collected at 5-foot intervals to 5 or 10 feet below ground surface, as necessary. The soil samples will be collected with split-barrel samplers according to ASTM D1586, "Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils." After drilling completion, the boreholes will be backfilled with soil cuttings and bentonite chips and the pavement will be patched with cold asphalt where needed. All fieldwork within the right of way will be performed using traffic control lane closure flaggers.

Field Supervision

Wang will layout the borings according to a approved sampling plan by Stanley, and clear the utilities though JULIE. A Wang field engineer will monitor drilling activities, maintain daily field notes, log the geotechnical borings, as well as receive, classify, and prepare soil samples for laboratory analysis. Field geologists will perform penetrometer and Rimac unconfined compressive strength tests on cohesive soil samples; he will also observe the groundwater level in boreholes. The as drilled boring locations will be surveyed by Wang using a mapping-grade Trimble GeoXH GPS unit.

Geotechnical Laboratory Testing

The soil testing program will include natural moisture content (D2216), Atterberg limits (D4318), and particle size analysis (D422) tests.

Environmental Laboratory Testing

During collection soil samples will be monitored in the field for total organic vapors using a calibrated photo-ionization detector (PID). Selected soil samples will be analyzed for pH, volatile organic compounds (VOCs), Semi VOCs including polynuclear aromatic hydrocarbons (PNAs), total RCRA metals, and toxicity characteristic leaching procedure (TCLP) by an accredited IEPA laboratory.

Engineering Analysis and Recommendations

Wang will prepare one roadway geotechnical report for the roadway and one structure geotechnical report for culverts. The geotechnical reports will include detailed description of investigation methods, present investigation results, and provide recommendations for roadway and structure design. Moreover, Wang will perform preliminary site assessment for solid waste characterization and clean soil disposal as a separate letter report. The letter report will include the IEPA Form LPC-663 identifying whether the soils are fit for disposal as uncontaminated soil/clean construction and demolition debris (CCDD). The

reports will also present site location map, boring location plans, boring logs, and summaries of laboratory test results.

Solid Waste Disposal Coordination

Wang will assist coordinating with landfills the disposal of solid waste and provide the necessary documentation for disposing of the solid waste.

SCHEDULING

Wang will start the project expediently upon prior authorization to proceed. We anticipate that after utility clearance, six working days will be necessary to complete the drilling phase. The laboratory testing program will proceed immediately and will be concluded within two to three weeks after drilling completion. The geotechnical reports will be submitted within two weeks after the Designer provides preliminary drawings. The letter report for environmental site assessment and waste disposal will be submitted two weeks after the laboratory analytical testing is finalized.

ESTIMATED COST ASSUMPTIONS

Wang will provide the above services according to the attached cost proposal with breakdown with unit prices. On preparing the cost estimate, we assumed

- The site is accessible by truck mounted drill rig or hand operated drilling equipment;
- Permits to access private properties are not required, the work will be done within the ROW;
- Wang will not be responsible for solid waste transportation and disposal to landfill; costs not included.

Wang Engineering, Inc. appreciates the opportunity to present this proposal and looks forward to working with Stanley on this project.

Sincerely,

WANG ENGINEERING, INC.

Corina T. Farez, PE, PG
Vice President

Cornelia L. Marin, PG
Senior Engineering Geologist

Attachment: BDE Forms

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Wang Engineering, Inc.
 PRIME/SUPPLEMENT Supplement
 Prepared By Cornelia Marin

DATE 04/27/23
 PTB-ITEM# 196-032

CONTRACT TERM 24 MONTHS
 START DATE 4/1/2023
 RAISE DATE 4/1/2024
 END DATE 3/31/2025

OVERHEAD RATE 198.450%
 COMPLEXITY FACTOR 0.035
 % OF RAISE 2%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	4/1/2023	4/1/2024	12	50.00%
1	4/2/2024	4/1/2025	12	51.00%

The total escalation = 1.00%

PAYROLL RATES

FIRM NAME	<u>Wang Engineering, Inc.</u>	
PRIME/SUPPLEMENT	<u>Supplement</u>	<u>04/27/23</u>
PTB-ITEM #	<u>196-032</u>	

ESCALATION FACTOR **1.00%**

Note: Rates should be capped on the AVG 1 tab as necessary

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal in Charge	\$89.36	\$78.00
Project Manager	\$65.42	\$66.07
Senior Engineer	\$65.42	\$66.07
Project Engineer/Project Geologist	\$43.84	\$44.28
Assistant Engineer/Assistant Geologist	\$28.75	\$29.04
Laboratory Technician	\$30.71	\$31.02
Administrative Assistant	\$37.43	\$37.80
QC/QA Reviewer	\$84.34	\$78.00

COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment
Prepared By: Consultant
DATE 04/27/23

FIRM
PTB-ITEM #
PRIME/SUPPLEMENT

Wang Engineering, Inc.
196-032
Supplement

OVERHEAD RATE 198.450%
COMPLEXITY FACTOR 0.035

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
DBE	Desk Study, Site Access, Permitting	7	332	658		121		1,111	1,111	1.31%
DBE	Field Activities	70	2,185	4,336	40,370	798		47,689	47,689	56.24%
DBE	Laboratory Testing	20	673	1,336	13,006	246		15,261	15,261	18.00%
DBE	Data Analysis and Engineering	71	2,894	5,742		1,056		9,692	9,692	11.43%
DBE	Report Preparation	63	2,785	5,527		1,017		9,329	9,329	11.00%
DBE	Project Management	8	512	1,017		187		1,716	1,716	2.02%
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