CONTRACT #2

143rd Street (IL Rt 7): Wolf Road to Beacon Avenue Reconstruction Village of Orland Park

Phase I Engineering and Environmental Study Scope of Work Narrative

This section will include widening and reconstructing 143rd Street from west of Wolf Road to Beacon Avenue, west of LaGrange Road (US Route 45) in Orland Park, Cook County, Illinois. 143rd Street from Beacon Avenue to LaGrange Road was improved as part of IDOT's reconstruction of LaGrange Road. The project will include intersection improvements and new traffic signals at Wolf Road, West Street, 108th Avenue, Crystal Tree Drive and Southwest Highway. The roadway will be widened to 2-11' or 12' lanes in each direction, separated by a median that varies in width from 12' or 16'. Geometric alternates along with pedestrian accommodations and streetscape improvement will be studied in the Old Orland/Downtown Area near Southwest Highway. A retaining wall will be required adjacent to the Forest Preserve within the 17' permanent easement.

Work Task 1 – Data Collection, Compilation, Review and Evaluation

Available previous studies; traffic data; available crash data; available survey data and control data for area roadways; pertinent local studies and agreements; available local aerial photography; existing roadway composition and condition data; microfilm plans; land use maps; census data; zoning maps; school district maps; park district maps; CCFPD maps and plans; fire district maps; sanitary and/or drainage district maps; historic district maps; soils and geological information; public and private utility plans; existing right-of-way data; USGS maps; flood insurance maps; local and regional land use and transportation planning studies; sidwell maps; municipal boundaries; bus routes; mail routes; emergency routes; etc.

CBBEL will determine facility deficiencies based on information gathered, and prepare maps and charts of data collected to be analyzed. Additional project field reviews are anticipated to verify data collected and identify any needed supplemental data.

Specific work tasks will include:

- Project field review(s)
- Project data collection
- Review, analyze and catalog project data
- Determine facility deficiencies

Work Task 2 – Topographic Survey

CBBEL will perform a full topographic survey of the project area for use in both the Phase I Engineering Services and subsequent Phase II Engineering Services.

General Survey limits and approximate lengths are as follows:

143rd (Wolf Road to 1,000' east of SW Highway)	9,900'
Wolf Road (1,000' north of 143rd to 1,000' south of 143rd)	2,000'
108th Avenue (1,000' north of 143rd to 1,000' south of 143rd)	2.000'
West Avenue (1,000' south of 143rd)	1,000'
SW Highway (1,000' north of 143rd)	1,000'
Union Street (500' north and 500' south of 143rd)	1,000'
TOTAL=	16,900'

CBBEL will perform the following survey tasks:

Horizontal Control: Utilizing state plane coordinates, CBBEL will set recoverable primary control utilizing our GPS equipment.

Vertical Control: CBBEL will perform a level circuit throughout the entire length of the project establishing benchmarks and assigning elevations to the horizontal control points.

Existing Right-of-Way: CBBEL will establish the existing right-of-way of the roadways within the project limits based on monumentation found in the field, plats of highways, subdivision plats and any other available information.

Topographic Survey: CBBEL will field locate all pavements, driveways, curb and gutters, pavement markings, signs, manholes, utility vaults, drainage structures, driveway culverts, cross road culverts, etc.

Cross Sections: CBBEL will survey cross sections along the project limits at 100' intervals, at driveways, and at all other grade controlling features.

Utility Survey: All existing storm and sanitary sewers will be surveyed to determine rim and invert elevations and pipe sizes. Above ground facilities of any additional underground utilities including water main, gas, electric, cable, etc. will also be located.

Tree Survey: CBBEL will locate all trees over 6 inches in diameter within the existing right-of-way and ultimately the proposed right-of-way for the project in order to assess potential tree impacts, if any, associated with the project. The located trees will be identified by species and the size and condition by our subconsultant Huff & Huff, Inc.

Base Mapping: CBBEL will compile all of the above information into one base map representative of existing conditions of the project corridor for use in all engineering work in developing the proposed improvements.

Work Task 3 – Traffic Data Collection and Analysis

This task includes obtaining current roadway and intersection traffic counts within the project study area for a typical mid-week school day, and coordinating with the Chicago Metropolitan Agency for Planning (CMAP) to develop year 2040 traffic projections for this project. CBBEL will utilize Traffic Surveys, Inc. for traffic counts work. 24 hour counts and peak hour (6-8 AM) and (2-6 PM) turning movements at each signalized intersection will be counted to develop the intersection capacity analysis for the IDSs. Also, 12 hour counts (12 AM-6PM) will be completed at Crystal Tree for the traffic signal warrant study and IDS.

CBBEL will prepare a traffic analysis memorandum that will evaluate existing and projected year 2040 travel volumes along 143rd Street based on traffic counts obtained. Design based on year 2040 traffic volumes is required to comply with federal project development procedures. Specifically, the technical memorandum will identify the existing and projected future 2040 traffic volumes, and the appropriate lane configuration throughout the project limits. CBBEL will coordinate with the Chicago Metropolitan Agency for Planning (CMAP) to secure concurrence with the projected year 2040 traffic volumes for this project.

Work Task 4 – Crash Analysis Report

The previous 5 years of crash data collected in Task 1 will be evaluated in accordance with federal procedures to determine any required safety countermeasures to be included with this project. The crash analysis will be included in the project PDR.

Work Task 5 – Location Drainage Study

During this phase of the project, CBBEL will coordinate with IDOT, and the Village of Orland Park to determine sensitive drainage areas including roadway flooding records, evaluate adequacy of existing drainage structures within the project study area, and provide drainage recommendations.

A Location Drainage Study (LDS) and a Hydraulic Reports (HR) will be prepared in compliance with the Department Drainage Manual and ACEC - Illinois/THE DEPARTMENT 2006 Drainage Seminar for the proposed geometry. See attached Location Drainage Study Work Hour Summary D1 PD0021 for additional information.

Work Task 6 – Retaining Wall Analysis/T, S & L Drawings

Our subconsultant, Bowman Barrett & Associates, Inc., will perform a preliminary design and cost analysis for the required retaining walls. They will analyze the soil and up to three (3) different wall types. A technical memorandum will be prepared summarizing the analysis and providing a recommendation wall type and estimated construction cost.

Based on the technical memorandum, CBBEL will prepare Type, Size and Location Drawings for the proposed retaining walls.

Work Task 7 – Alternate Geometric Studies and Streetscape Studies within the Old Orland/Downtown Area

The Alternative Geometric Studies work task includes all work required to develop preliminary geometric alternatives, based on analysis and Village input, for the "Old Orland/Downtown Area" from West Avenue to Beacon Avenue and Beacon Avenue south to 144th Street. The study will be used for relative comparison and presentation at a Public Hearing, with subsequent development of detailed geometry for the Preferred Alternative and included in the Final PDR. This is anticipated to be an iterative process with the potential for a number of alternatives being considered initially based on project team and Village input, and screened down to a few alternatives for geometric development. It is assumed that up to three (3) alternatives will be developed geometrically, and evaluated as indicated below.

The following concept analysis will occur as part of the preliminary alternatives development to ensure feasibility:

- Capacity analysis of existing and proposed conditions
- Traffic signal coordination/modification
- Adherence to design standards
- Pedestrian/bike path accommodation requirements
- Land planning/land use study
- Parking analysis
- Environmental impacts
- Streetscape/Lighting Elements
- Building renovation/relocations
- Drainage impacts
- Land use impacts
- Concept plan studies, including alignment and geometries.
- Profile and cross-section studies to identify conceptual right-of-way, environmental and drainage impacts.
- Local road reconnection options for alternatives.
- Develop conceptual construction cost estimates for comparison purposes.

Preferred Alternative

Upon selection of a Preferred Alternative for the Old Orland/Downtown Area based on coordination with the Village, and results from a Public Meeting presenting alternatives, CBBEL will complete detailed plan, profile and cross section studies as required to complete Phase I engineering. We assumed that the remainder of the project will generally consist of 2-11' or 12' through lanes in each direction separated by a 12' to 16' median/left turn lane, as was recommended in previous studies. The reconstructed roadway will be centered within the existing/proposed ROW and will generally follow the existing center line. We have not included an Alternate Geometric Analysis for the remainder of the project west of the Old Orland/Downtown Area. Our preliminary plan studies will include horizontal and vertical geometry, existing/proposed cross sections, and right-of-way/easement determination for the entire project, including the "Old Orland/Downtown Area".

CBBEL will prepare preliminary plan and profile sheets showing existing and proposed horizontal and vertical geometry at a scale of 1"=50". The proposed geometry will be set to meet all applicable State design criteria (or justified design exceptions) and to minimize right-of-way and easement requirements to the extent possible, but also considering drainage and environmental mitigation needs, refined pedestrian and bicycle accommodation needs, as well as construction staging needs. Typical sections for the proposed improvement will be developed concurrently.

Existing and proposed cross-sections will be provided at 50' intervals and at all side streets, driveways and other grade controlling features to determine right-of-way and easement requirements, wetland impacts (if/where present), ditch locations and drainage patterns, and to fine-tune the proposed vertical geometry. These cross-sections will show existing right-of-way (where exists), existing grade/ground elevation, proposed grade (top surface only) and proposed right-of-way and easements where necessary.

During this task, it is expected that additional coordination/review will occur with the Village for review and/or comment/concurrence. At the end of this task the project team will have completed preliminary

geometry and identified the proposed project limits including the proposed right-of-way acquisitions and easements for presentation at the project Public Hearing.

This task will include attendance at periodic THE DEPARTMENT/FHWA coordination meetings held at THE DEPARTMENT District One office in Schaumburg to present project progress and secure concurrence on project progress and any necessary design issues. For the purpose of this proposal, attendance at two coordination meetings is assumed throughout the durations of Phase I engineering.

This task also includes development of the construction cost estimate for the Preferred Alternative.

Specific work tasks will include:

- Develop preliminary alternatives (Old Orland/Downtown Area only)
- Preliminary alternatives analysis (Old Orland/Downtown Area only)
- Village Coordination
- Develop detailed geometry for Preferred Alternative
- Prepare proposed cross sections at 50' intervals and critical locations
- Attendance at IDOT/FHWA coordination meetings
- Determine right-of-way/easement requirements based on geometry, drainage, environmental, and ped/bike considerations
- Prepare construction cost estimate for the Preferred Alternative

Work Task 8 – Traffic Maintenance Analysis

CBBEL will prepare a Traffic Maintenance Analysis (TMA) for construction of the Preferred Alternative. This will include a determination of the method for construction staging and traffic maintenance, including an evaluation of the need for temporary pavement and/or marked detours, which will include coordination with IDOT and the Village of Orland Park. The need for temporary construction easements will be evaluated for inclusion on the proposed plan and cross sections. This task will be summarized in a TMA report for this project that is anticipated to be included in the PDR as an appendix.

Specific work tasks will include:

- Determine stage construction methodology
- Determine traffic maintenance requirements including detours
- Determine temporary construction easement needs
- Prepare report exhibits
- Prepare preliminary TMA report for review.
- Prepare Final TMA report with disposition of comments
- Coordination Meetings

Work Task 9 – Intersection Design Studies – 143rd Street at Southwest Highway, 143rd Street and Wolf Road, 143rd Street and West Street, 143rd Street at Deerhaven Road, 143rd Street and 108 Avenue and 143rd Street at Crystal Tree Drive

IDOT will require separate IDS's to be developed for the proposed intersection improvements. The IDS's will be prepared based on the data collected in Task 3.

A traffic signal warrant analysis will be prepared for the unsignalized intersection at 143rd and Crystal Tree.

The IDS's will be prepared at a scale of 1" = 50' and will include the following:

- Intersection capacity analyses for a.m. and p.m. peak hour design year traffic volumes.
- Existing and projected peak hour volumes.
- Preliminary intersection geometry.
- Signal layout.
- Design and general notes.

The IDS's will be submitted to IDOT for review. Any review comments by IDOT will be incorporated into the final IDS's and submitted to IDOT for approval.

Task 9.1 – Coordination with IDOT: We will meet with representatives from IDOT to review the IDS's. We will attend four meetings for this task.

Work Task 10 – Railroad Coordination

CBBEL will initiate coordination with IDOT, Illinois Commerce Commission (ICC) Norfolk Southern Railroad and Metra regarding the existing signalized at-grade railroad crossing on 143rd Street east of IL 7 (Southwest Highway). This will include a diagnostic team meeting in the field to review existing conditions and to evaluate the proposed improvement alternatives. The alternatives may include changes to the existing traffic signal phasing, pedestrian crossing(s) and modifications to the existing roadway geometry. In addition, CBBEL will submit hard and electronic copies of the IDS for this intersection to IDOT and the ICC for review and comment. If required by IDOT or the ICC we will update the existing or prepare a new minimum warning time study report.

Work Task 11 – Utility Coordination

Upon authorization to proceed, CBBEL will send a location map to all known private utility companies within the project area requesting their atlases or plans of their facilities within the project limits. CBBEL will add this information to the existing conditions plan and send it back to the utility companies for verification.

Work Task 12 – Prepare Environmental Studies

CBBEL will perform an initial environmental natural resource review of the project area. This review will include use of the Illinois Department of Natural Resources' (IDNR) "Eco-CAT" (Ecological Compliance Assessment Tool) screening tool in compliance with current IDOT procedures, to determine the presence of Threatened or Endangered Species, or other natural resources of concern within the project area and the need (if any) for further environmental field surveys.

Based on review of the National Wetland Inventory maps, it appears that wetlands exist within the project area. CBBEL will complete a Wetland Assessment of the project corridor to delineate any waters of the United States or wetlands present. The presence of waters and wetlands will be determined for a distance of 50' outside existing right-of-way. Any identified waters or wetlands will be delineated based on the methodology established by the U.S. Army Corps of Engineers (USACE). Also during the field review, the wildlife and plant community qualities within the project area will be assessed. The results of the field reconnaissance will be summarized in a technical memorandum in a format that can be used as part of the Environmental Survey Request submittal to IDOT, and for later use as part of the USACE

Joint Permit Application package, if required. CBBEL will also prepare the required WIE forms for submittal to IDOT.

In addition, CBBEL will review the CERCLIS/UST-LUST/RCRA Special Waste databases to determine the need for further special waste studies, and if required, prepare a Preliminary Environmental Site Assessment (PESA). CBBEL would use Huff & Huff for preparation of the PESA if required.

Huff & Huff will update and resubmit the Noise Technical Memorandum that was completed in 2003.

The environmental assessments and waters/wetland assessment would be submitted to IDOT for processing in accordance with the recently updated Environmental Survey Request Form (ESRF) procedures for federally funded projects being coordinated through IDOT-Local Roads.

Trees within the project area will be located and sized as part of the survey task, and evaluated with respect to species and health as part of this task, during the field reconnaissance.

Work Task 13 – Prepare Project Development Report

We have assumed this project will require completion of a Phase I Engineering Report in accordance with IDOT-BLR Form 22110-Local Project Development Report (PDR) for Group II Categorical Exclusions, and coordinated with IDOT and FHWA for review/approval. This task includes development of the preliminary PDR, and all supporting exhibits, including proposed improvement plan, profile and cross sections for initial review by IDOT and FHWA, and for coordination with the Village, and other project stakeholders as appropriate. This task also includes this coordination effort. The standard format for the Project Development Report requires the following issue areas be addressed if determined to be applicable to this project:

1. Location and Existing Conditions
    a. Location
    b. Description of Existing Facility
    c. Traffic Data
    d. Structures
    e. Railroads
    f. Contiguous Sections
2. Proposed Improvement
    a. Need and Purpose
    b. Design Guidelines
    c. Describe Improvement
    d. Items Affecting Improvement
    e. Required Design Variances
    f. Detailed Construction Cost Estimate
    g. Pedestrians, Bicyclists and the Handicapped
    h. Adjacent Segments
3. Crash Analysis
    a. Summarize Accident Data
    b. Analyze Available Accident Data
    c. Describe Proposed Countermeasures
4. Right-of-Way

    a. Describe and provide detailed exhibits of Fee Simple and Temporary Construction requirements for the project
    b. Number and Type of Displacements
5. Prime Farmland
    a. Illinois Department of Agriculture Coordination
    b. NRCS Consultation
6. Floodplain Encroachment
7. "404" Permit Requirements
    a. Nationwide Permit
    b. Individual Permit
8. Environmental Survey and Coordination
    a. Wild and Scenic Rivers
    b. Wetlands
    c. Archaeological and Historical Preservation
    d. Threatened or Endangered Species
    e. Stream Modifications and Wildlife Impacts
    f. Agency Coordination and Documentation
9. Section 4(f) Lands – Assume not required
10. Air Quality
11. Noise
12. Maintenance of Traffic
13. Public Involvement
    a. Summarize Public Coordination Efforts
    b. Summarize Public Meetings/Hearings held
    c. Summarize Public Comments/Responses
14. Coordination

Work Task 14 – Forest Preserve Coordination 4(f) Evaluation

CBBEL will coordinate the improvements with the Forest Preserve District of Cook County (FPDCC) and our subconsultant, Lakota Group, will prepare the tree mitigation plan as part of the agreement for the 17' permanent easement that has previously been obtained by the Village. We assume a separate 4(f) document is not required.

Work Task 15 – Public Involvement/Meetings

CBBEL and various members of the project team will coordinate the design with the public and the Village. We have included the following coordination meetings:

- Three (3) stakeholder meetings with the property owners in the Old Orland area
- Attendance and report at one (1) Village Committee Meeting
- One (1) Public Hearing – Open House Format
- One (1) meeting with ComEd to discuss relocating their facilities underground
- Six (6) meetings with Village Staff
- Three (3) meetings with Cook County Forest Preserve
- Two (2) meetings with IDOT – Central Office/FHWA
- Two (2) meetings with IDOT – District One

Meetings with permitting agencies are included in their respective tasks.

Work Task 16 – Geotechnical Investigation

Based on the planned roadway widening and reconstruction, a pavement coring and soils survey will be prepared in accordance with IDOT guidelines to aid in determining the most cost effective scope of work, and identify any areas of unsuitable soils that must be considered for remediation. CBBEL will subcontract this work to Wang Engineering.

Wang will perform a roadway geotechnical investigation including a roadway pavement coring. Their proposed investigation program was prepared following the guidelines included in the IDOT Geotechnical Manual and current IDOT Memoranda except for the retaining walls where a larger spacing than IDOT requires was adopted. IDOT requires borings be spaced at 75 feet intervals for a total of 55 borings. Wang proposes to space the borings at 150 feet intervals along the walls. Furthermore, Wang made allowances for 5 additional borings to supplement the investigations along the wall' alignments if soil conditions dictates.

To investigate the subsurface soil and groundwater conditions that will form the basis of our recommendations for the roadway widening and reconstruction, Wang proposes the investigations program summarized in Table 1. The investigation program for associated structures will be presented under a separate proposal.

Table 1: Proposed Subsurface Investigation Program – Contract 1

Alignment/Structure	Location	Length ft	Boring Spacing ft	Estimated Borings (per IDOT Geot Manual*)	Existing Borings	Estimated Additional Borings	Proposed Average Boring Depth ft	Total Drilling Footage ft
143rd Street	Wolf Rd. Beacon Ave.	10900	300 '	33	33	0	10	0
Cross Roads		7000	300'	23	0	23	10	230
Peat Delination	Areas A, B, C, D		TBD	20	9	11	15	165
Peat Investigation - Testing	Areas A, B, C, D	ST	TBD	4	0	4	20	80
Retaining Wall	Old Tamarack West Ave.	4000	150'	10	0	10	75	750
al Roadway and Structure Borings				**90**	**42**	**48**		**1225**

Note: * Except for RWS

Work Task 17 – Project Administration and Quality Control/Assurance

This task includes overall project administration and management, as well as implementation of the QA/QC plan for this project.

Project administration includes managing the day to day work effort on the project to ensure an efficient project development process including work force allocations, budget oversight, schedule oversight to ensure project milestones are being met, and implementation of the **CBBEL** QA/QC plan for the project throughout the course of the Phase I Engineering study.

Specific work tasks will include:

- General project management/administration including staff resource allocation, task/schedule oversight, quality reviews, etc.
- Prepare monthly progress reports including a copy of the overall project schedule.
- Attend quarterly project status meetings with the Village as determined to be necessary.
- Coordination Meetings.

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-039
REV 12/04

FIRM Christopher B. Burke Engineering, Ltd.
Local Agency Orland Park
Section
Project 143rd Street
Job No:

DATE 07/18/13

OVERHEAD RATE 154.51%
COMPLEXITY FACTOR 0

Cost Plus Fixed Fee 1 — 14.50% [DL+R(DL) +OH(DL)+IHDC]

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	Outside Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Data Collection, Compilation, Review and Evaluation	46	2,072.18	3,201.73		764.72	500.00			6,538.62	0.75%
	Topographic Survey	750	28,420.80	43,912.98		10,488.40		6,649.26		89,471.44	10.31%
	Traffic Data Collection and Analysis	120	4,575.64	7,069.82		1,688.59		7,800.00		21,134.05	2.44%
	Crash Analysis Report	100	3,867.04	5,974.96		1,427.09				11,269.09	1.30%
	Location Drainage Study	1284	54,668.74	84,468.67		20,174.92	500.00			159,812.33	18.42%
	Retaining Wall Analysis/T,S&L Drawings	86	3,872.52	5,983.43		1,429.11		29,497.28		40,782.34	4.70%
	Alternate Geometric Studies and Streetscape Studies within the Old Orland/Downtown Area	732	33,237.92	51,355.91		12,266.11	3,600.00	40,160.00		140,619.94	16.21%
	Traffic Maintenance Analysis	132	6,187.20	9,559.84		2,283.32	650.00			18,680.36	2.15%
	Intersection Design Studies	706	26,988.24	41,699.53		9,959.73				78,647.50	9.07%
	Railroad Coordination	40	2,340.80	3,616.77		863.85				6,821.42	0.79%
	Utility Coordination	62	2,905.34	4,489.04		1,072.19				8,466.57	0.98%
	Prepare Environmental Studies	258	11,902.36	18,390.34		4,392.44	1,200.00	14,723.60		50,608.74	5.83%
	Prepare Project Development Report	318	14,602.56	22,562.42		5,388.92	2,400.00			44,953.90	5.18%
	Forest Preserve Coordination	96	5,103.80	7,885.88		1,883.50		5,020.00		19,893.19	2.29%
	Public Involvement/Meetings	278	13,639.68	21,074.67		5,033.58	4,800.00	5,020.00		49,567.93	5.71%
	Geotechnical Investigation	10	516.32	797.77		190.54		102,480.52	102,500.00	103,985.15	11.99%
	Project administration and Quality Control/Assurance	84	5,602.32	8,656.14		2,067.48				16,325.94	1.88%
	Subconsultant DL									0.00	
	TOTALS	5102	220,503.46	340,699.90	0.00	81,374.49	13,650.00	211,350.66	102,500.00	**867,578.50**	100.00%

DBE

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143rd Street Improvements
Village of Orland Park
Phase I - Wolf Road to Beacon Avenue (Contract #2)
Workhour Estimate - BB&A

July 2, 2013

	TASK/DESCRIPTION	HOURS			
		Sub-Total	Task Total	Client Estimate	Neg. Total
1.	Coordination		**16**		
2.	Retaining Wall Feasibility Study		**200**		
	2.1 Data Review	8			
	2.2 Conceptual Studies (Develop 15% Level Elements)				
	2.2a Develop Conceptual Cross Sections &				
	Typical Section Parameters	16			
	2.2c Develop Conceptual Wall Typical Sections				
	Assume 3 Alternatives @ 20 Hrs each	60			
	2.2d Review Additional Wall Factors Including:	32			
	Geotechnical Considerations, Utilities, Constructability,				
	2.2e Develop Conceptual Cost Estimates	20			
	2.4 Write, Compile, Edit & Submit Draft Feasibility Report	40			
	2.5 Review Comment Disposition	8			
	2.6 Revise, Compile, Edit & Submit Final Feasibility Report	16			
3.	**Quality Assurance / Quality Control**		**4**		
	Sub-Total		**220**		
4.	**Project Management/Administration**		**8**		
	Total		**228**		

Direct Costs - Phase I (Wolf Road to Beacon Street) - Contract #2				
		ITEM		COST
2		Feasibility Study		
			Estimated Direct Cost =	$540
		Reproduction	$490	Outside
		300 pages @ $0.20/page (8.5" x 11" b/w)	$60	
		80 sheets@ $2.50/sheet (8.5" x 11" color)	$200	
		200 sheets @ $0.40/sheet (11" x 17" b/w)	$80	
		40 sheets @ $3.75/sheet (11" x 17" color)	$150	
		Mailing, Courier, Postage	$50	Outside
4		Administration/Management		
			Estimated Direct Cost =	$210
		Reproduction	$60	Outside
		300 pages @ $0.20/page (8.5" x 11" b/w)	$60	
		Mailing, Courier, Postage	$150	Outside
			Total	$ 750

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-039
REV 12/04

FIRM Bowman, Barrett & Associates, Inc.
PTB Contract #2
PRIME/SUPPLEMENT PRIME

DATE 07/02/13

OVERHEAD RATE 1.3233
COMPLEXITY FACTOR 0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	Outside Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Coordination	16	890.33	1,178.17		329.42				2,397.93	8.13%
	Ret. Wall Feasibility Study	200	8,916.73	11,799.51		3,299.19	540.00			24,555.43	83.25%
	QA/QC	4	300.00	396.99		111.00				807.99	2.74%
	Administration	8	566.57	749.74		209.63	210.00			1,735.94	5.89%
	Subconsultant DL					0.00				0.00	0.00%
	TOTALS	228	10,673.63	14,124.41	0.00	3,949.24	750.00	0.00	0.00	**29,497.28**	100.00%

DBE

DBE 0.00%

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DF-824-039
REV 12/04

AVERAGE HOURLY PROJECT RATES

FIRM Bowman, Barrett & Associates, Inc.
PTB Contract #2
PRIME/SUPPLEMENT PRIME

DATE 07/02/13

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Coordination			Ret. Wall Feasibility Study			QA/QC			Administration					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Engineer IX	75.00	0																	
Engineer VIII	75.00	14	6.14%	4.61	4	25.00%	18.75				4	100.00%	75.00	6	75.00%	56.25			
Engineer VII	63.47	0																	
Engineer VI	49.19	36	15.79%	7.77	12	75.00%	36.90	24	12.00%	5.90									
Engineer V	46.52	100	43.86%	20.40				100	50.00%	23.26									
Engineer IV	42.01	0																	
Engineer III	36.80	0																	
Engineer I/II	30.69	0																	
Surveyor III	43.12	0																	
Inspector II	39.73	0																	
CADD Technician III	40.58	76	33.33%	13.53				76	38.00%	15.42									
CADD Technician II	32.76	0																	
Arch/Eng Technician	41.56	0																	
Administration	34.76	0																	
Accounting	58.28	2	0.88%	0.51										2	25.00%	14.57			
Marketing	39.20	0																	
		0																	
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TOTALS		228	100%	$46.81	16	100.00%	$55.65	200	100%	$44.58	4	100%	$75.00	8	100%	$70.82	0	0%	$0.00

PREPARED BY THE AGREEMENTS UNIT

Printed 7/2/2013 11:09 AM

DF-824-039
REV 12/04

PAYROLL RATES

FIRM NAME Bowman, Barrett & Ass DATE 07/02/13
PRIME/SUPPLEMENT PRIME
PTB NO. Contract #2

ESCALATION FACTOR 4.55%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Engineer IX	$90.00	$75.00
Engineer VIII	$76.00	$75.00
Engineer VII	$60.71	$63.47
Engineer VI	$47.06	$49.19
Engineer V	$44.50	$46.52
Engineer IV	$40.19	$42.01
Engineer III	$35.20	$36.80
Engineer I/II	$29.36	$30.69
Surveyor III	$41.25	$43.12
Inspector II	$38.00	$39.73
CADD Technician III	$38.81	$40.58
CADD Technician II	$31.33	$32.76
Arch/Eng Technician II	$39.75	$41.56
Administration	$33.25	$34.76
Accounting	$55.75	$58.28
Marketing	$37.50	$39.20
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

PREPARED BY THE AGREEMENTS UNIT Printed 7/2/2013 11:09 AM

PAYROLL ESCALATION TABLE
FIXED RAISES

FIRM NAME: Bowman, Barrett & Associates, Inc.
PRIME/SUPPLEMENT: PRIME

DATE: 07/02/13
PTB NO.: Contract #2

CONTRACT TERM	24 MONTHS	OVERHEAD RATE	132.33%
START DATE	12/31/2013	COMPLEXITY FACTOR	
RAISE DATE	1/1/2014	% OF RAISE	3.00%

ESCALATION PER YEAR

12/31/2013 - 1/1/2014	1/2/2014 - 1/1/2015	1/2/2015 - 1/1/2016		
0 / 24	12 / 24	12 / 24		
= 0.00%	51.50%	53.05%		

= 1.0455

The total escalation for this project would be: 4.55%

Wang Engineering

1145 North Main Street
Lombard, Illinois 60148
Phone (630) 953-9928
www.wangeng.com

July 15, 2013

Mr. Jason G. Souden, PE
Vice President, Head, Civil Design Department
Christopher B. Burke Engineering, Ltd.
9575 W. Higgins Road, Suite 600
Rosemont, IL 60018

Reference: Proposal for Geotechnical Engineering Services
Contract 2 – Phase I Design
143rd Street (IL Route 7) Reconstruction
From Wolf Road to Beacon Avenue
Orland Park, Illinois
Wang No. P130619 – Contract 2

Dear Mr. Souden:

Wang Engineering, Inc. (Wang) is pleased to submit this proposal for geotechnical services to support the Contract 2, Phase I design and construction of the proposed widening and reconstruction of 143rd Street from west of Wolf Road to west of Lagrange Road (US45) in Orland Park, Illinois.

Based on information provided by Christopher B. Burke Engineering, Ltd. (CBBEL), Wang understands a 10,900-foot long section of 143rd Street is proposed for widening and reconstruction. The existing roadway will be widened to include two 11- to 12-foot wide lanes in each direction, a 12- to 16-foot wide landscaped median, and left turn lanes. In addition, about 7,000 feet of cross streets will be included in the project along Wolf Road, West Street, 108th Avenue, Crystal Tree Drive, and Southwest Highway. Structures included in the project consist of a 4,000-foot long retaining wall on the north side of the roadway near the Forest Preserve; a 150-foot long retaining wall on the south side near the Old Tamarack Drive, and two box culverts at Stations 76+00 and 138+00. The retaining walls will support a proposed raise in profile grade over highly compressible soils, and solutions to reduce or eliminate the anticipated settlement and stability concerns will be required. Within this section, a 12-inch diameter water main will be installed between Crystal Tree Drive and Southwest Highway, and a 16-inch diameter water main will be constructed between Wolf Road and 108th Avenue.

The subsurface investigation for the roadway improvements and peat delineation will be performed under Contract 2 (Phase I Design). For the retaining walls, a preliminary investigation will be

performed in Contract 2, with the primary investigation being performed during Contract 3 (Phase II Design). The box culverts and water mains will be investigated entirely under Contract 3.

SCOPE OF WORK

A subsurface investigation for this portion of 143rd Street was performed by Wang between 2001 and 2003. The results of the investigation were presented in Wang's report, "*Soil Survey, 143rd Street from Wolf Road to LaGrange Road,*" dated January 27, 2003. The investigation included 33 subgrade borings, nine peat delineation borings, and nine pavement cores. The investigation revealed deposits of peat and other highly compressive and organic clays between approximately Stations 62+50 to 65+50, Stations 75+50 and 85+50, and at Station 138+00. Our previous investigation findings will be incorporated in the new roadway geotechnical report. We do not anticipate needing additional roadway borings along 143rd Street other than to collect laboratory samples on compressible soils and delineate the layers. Roadway borings will be needed to investigate the subsurface conditions along the cross roads proposed for improvement. Thus, we will perform 11 peat delineation borings to 15 feet bgs (165 total feet) and 23 soil borings to 10 feet bgs (230 total feet) along the cross roads. This roadway investigation meets the guidelines included in the IDOT *Geotechnical Manual* and current IDOT Memoranda.

The investigation of the retaining walls under Contract 2 will include 10 retaining wall borings to 75 feet bgs (750 total feet). This boring depth will ensure they advance sufficiently beyond the poor soils and adequately investigate the competent foundations soils below. The spacing of the retaining wall borings proposed during Contracts 2 and 3 will measure about 150 feet which is greater than the IDOT requirement of 75 feet. The combined contract investigation will amount to 33 borings, of which 10 will be performed in Contract 2. The total scope of the Contract 2 subsurface investigation is summarized below in Table 1.

Table 1: Proposed Subsurface Investigation Program for Contract 2

Alignment/Structure	Location	Length	Boring Spacing	Estimated Borings (per IDOT Geot Manual*)	Existing Borings	Estimated Additional Borings	Proposed Average Boring Depth	Total Drilling Footage
		ft	ft				ft	ft
143rd Street	Wolf Rd. to Beacon Ave.	10900	300 '	33	33	0	10	0
Cross Roads		7000	300'	23	0	23	10	230
Peat Delination w/ST	Areas A, B, C, D		TBD	20	9	11	15	165
Retaining Wall	Old Tamarack West Ave.	4000	150'	10	0	10	75	750
Total Roadway and Structure Borings				**86**	**42**	**44**		**1145**

The depth of each boring may be adjusted in the field depending on the actual subsurface soils conditions. We will assess the soil conditions and provide a Phase I Roadway Geotechnical Report for the design and construction of the widening, as well as a feasibility report for the primary retaining wall.

To accomplish these objectives, Wang will complete the following tasks.

Geotechnical Drilling Services — Wang will provide equipment, labor, and associated materials to drill and sample 44 soil borings to depths of 10 to 75 feet bgs and a total footage of 1145 feet. The borings will be advanced with hollow stem augers to maintain an open borehole. Soil samples will be collected with split-barrel samplers in accordance with AASHTO T 206 "*Penetration Test and Split-Barrel Sampling of Soils*." Undisturbed Shelby tube samples will be collected in the peat delineation borings, as required. The soil samples will be transported to our laboratory for index and advanced geotechnical testing. The borings will be drilled primarily within the wetland area along each side of the roadway, and an ATV-mounted drill rig will be required. Lane closures will be necessary during mobilization and demobilization of the rig, as well as during the investigation of the cross streets.

Field Supervision — Prior to drilling, Wang will locate the boring locations in the field and clear utilities through the JULIE on-call system. A field engineer will monitor drilling activities, maintain daily field notes and soil boring logs, as well as receive, classify, and prepare soil samples for laboratory analysis. The field engineer will monitor the groundwater level during drilling and at the completion of drilling operations. Soil samples will be classified according to the IDH Textural Classification System. As-drilled boring locations will be surveyed by Wang using a mapping grade GPS unit; the GPS unit has sub-foot accuracy in the horizontal direction.

Laboratory Testing — Upon completion of the drilling phase, the soil samples will be transported to our in-house laboratory. The general soil testing program will include natural moisture content (AASHTO T 265) on each sample, as well as Atterberg limits (AASHTO T 89/90), particle size (AASHTO T 88), and organic content on selected samples. To obtain advanced strength and deformation properties on the foundation soils, the Shelby tube samples will be tested for consolidated-undrained (AASHTO T 297) triaxial and one- dimensional consolidation (AASHTO T 216).

Engineering Analysis and Recommendations — Wang will prepare a Roadway Geotechnical Report (RGR) for the proposed widening and reconstruction of 143rd Street, as well as for the proposed sections of cross street improvement. A preliminary feasibility study report will also be prepared for the retaining walls.

The RGR will be prepared according to the requirements of IDOT Geotechnical Manual and subsequent All Geotechnical Manual Users (AGMU) Memoranda. The report will include a detailed description of the project, a description of field and laboratory testing results and procedures, a characterization of the soil and groundwater conditions, soil boring logs, and soil profiles. Recommendations will be provided for the design and construction of the various roadway improvements including the anticipated subgrade conditions and the performance of proposed embankments. We anticipate the analysis of several ground improvement or modification techniques will be required for the support of the roadway embankment and structures. Wang will perform the analysis and provide preliminary design recommendations and parameters for each feasible technique. Man-hours for a comprehensive ground improvement design of the selected method are not included in this proposal; these matters will be addressed in Contract 3.

SCHEDULING

Wang will start the project expediently upon authorization to proceed. We anticipate that boring layout and utility clearance will require approximately two days of field work and office coordination. We anticipate the drilling and sampling will require approximately 15 days. The laboratory testing program will be completed in about a month after the completion of drilling and at that time the date for submittal of geotechnical reports will be coordinated with CBBEL.

COST ESTIMATE

Wang proposes to provide the above tasks on a time and material basis at the hourly rates and direct costs shown on the attached cost estimate. This cost estimate was prepared assuming the following conditions.

- Drilling unit costs are considered prevailing rate under the Prevailing Wage Act (820 ILCS 130/0.01);
- The boring locations within the wetland will require an ATV-mounted drilling rig for access;
- No hazardous materials are encountered; and
- No permits are required to work along 143rd Street.

INSURANCE

Attached is a sample of our Certificate of Insurance. Additional insurance beyond those limits is not included in our cost estimate and will be considered a reimbursement item.

Wang Engineering, Inc. appreciates the opportunity to present this proposal and we look forward to working with CBBEL and the Village of Orland Park on this project. If you have questions, or if you require additional information, please contact us at (630) 953-9928.

Sincerely,

Wang Engineering, Inc.

Corina T. Farez, P.E., P.G.
Vice President

Mickey L. Snider, P.E.
Senior Geotechnical Engineer

Wang Engineering

GEOTECHNICAL SERVICES
UNIT PRICES
2013

AAR AASHTO R18

CONTRACT 2 - PHASE I DESIGN
143rd Street from Wolf Road to Beacon Avenue
Orland Park, Illinois

Date: 07/15/2013
Wang No.: P130619 Contract 2

Task Description	Units	Unit Price	Extended Cost
DRILLING, SAMPLING & INSITU TESTING			
Drilling Coordination	4.0 Hours	$92.00 /Hour	$368.00
Utilities Clearance, Site Access, Permitting	12.0 Hours	$92.00 /Hour	$1,104.00
Mobilization (ATV-mounted Drill Rig)	2 Each	$1,200.00 /Each	$2,400.00
Drilling Crew Daily Travel & Support Vehicle	15 Days	$150.00 /Day	$2,250.00
Stand-by Hourly Rate - ATV-Mounted Drill Rig (Two-Man Crew & Equipment)	0.0 Hours	$325.00 /Hour	$0.00
Drilling and Sampling			
Structure Borings			
Drilling including split spoon sampling at 2.5-foot intervals to 30 feet and at 5-foot intervals thereafter (SPT, Penetrometer, Rimac, Visual Classification Included)			
Between 0 and 75 Feet			
Normal Working Hours	750.0 Feet	$27.00 /Foot	$20,250.00
Restricted Hours (6 Hours)	0.0 Feet	$33.00 /Foot	$0.00
Night Work	0.0 Feet	$31.00 /Foot	$0.00
Roadway Borings			
Drilling including continuous split spoon sampling to 10 feet (SPT, Penetrometer, Visual Classification Included)			
Continuous Sampling			
Normal Hours	395.0 Feet	$27.50 /Foot	$10,862.50
Restricted Hours (6 Hours)	0.0 Feet	$32.50 /Foot	$0.00
Night Hours	0.0 Feet	$31.50 /Foot	$0.00
Shelby Tube Borings			
Blind drilling and Shelby tube sampling at selected depths			
Shelby Tube Samples			
Normal Working Hours	10 Samples	$57.00 /Sample	$570.00
Restricted Hours (6 Hours)	0 Samples	$66.00 /Sample	$0.00
Night Work	0 Samples	$62.00 /Sample	$0.00
Surveying of Boring Locations			
Mapping-grade Trimble 6000 Series GPS	6.0 Hours	$200.00 /Hour	$1,200.00
			$ 39,004.50

LABORATORY TESTING					
Soil Index Tests					
T265	D2216	Water Content	448 Tests	$7.50 /Test	$3,360.00
T267	D2974	Organic Content by LOI	6 Tests	$54.00 /Test	$324.00
T194	--	Organic Content by Wet Combustion	2 Tests	$119.00 /Test	$238.00
Particle Size Distribution					
T88	D422	Combined Sieve and Hydrometer	8 Tests	$111.00 /Test	$888.00
--	D1140	Percent Finer than No. 200 Sieve	0 Tests	$46.00 /Test	$0.00
Atterberg Limits					
T89, T90	D4318	Liquid and Plastic Limits	8 Tests	$69.00 /Test	$552.00
T92	D427	Shrinkage Factors	0 Tests	$82.00 /Test	$0.00
Soil Settlement, Swelling, and Collapse Potential					
T216	D2435	One-Dimensional Consolidation	2 Tests	$500.00 /Test	$1,000.00
Shear Strength of Soil					
T297	D4767	CU Triaxial Compression (3 points)	1 Tests	$930.00 /Test	$930.00
Additional Sample Preparation Procedures					
		Removal of Organic Matter	0 Samples	$77.00 /Sample	$0.00
		Extrusion & Preservation of Undisturbed Samples	10 Samples	$23.00 /Sample	$230.00
					$ 7,522.00

1145 N Main Street
Lombard, IL 60148
630 953-9928

Wang Engineering

GEOTECHNICAL SERVICES
UNIT PRICES
2013

AAR AASHTO R18

CONTRACT 2 - PHASE I DESIGN
143rd Street from Wolf Road to Beacon Avenue
Orland Park, Illinois

Date: 07/15/2013
Wang No.: P130619 Contract 2

Task Description	Units	Unit Price	Extended Cost
TRAFFIC CONTROL			
Traffic Control			
Shoulder Closure (1/2 mile)			
Daytime	5.0 No.	$600.00 /Each	$3,000.00
Night time	0.0 No.	$925.00 /Each	$0.00
			$ 3,000.00
FIELD VEHICLES & MILEAGE			
Field Vehicle			
Field Vehicle Mileage (>100 Miles per Day)	0.0 Miles	$0.565 /Mile	$0.00
Field Vehicle Daily (<100 Miles per Day)	18 Days	$45.00 /Day	$810.00
Tolls	0 Tolls	$1.00 /Toll	$0.00
			$ 810.00
REPORT REPRODUCTION			
Report Reproduction			
Copies, Black & White, 8.5" X 11"	250 No	$0.20 /Each	$50.00
Copies, Color, 8.5" X 11"	20 No	$2.50 /Each	$50.00
Copies, Reproduction or Reduction, 24" X 36"	0 No	$10.00 /Each	$0.00
			$ 100.00
ENGINEERING, REPORTING & MANAGEMENT			
Field Activities			
Project Engineer/Project Geologist	20.0 Hours	$91.62 /Hour	$1,832.40
Assistant Engineer/Assistant Geologist	150.0 Hours	$88.19 /Hour	$13,228.50
Data Analyses & Engineering			
Senior Engineer	40.0 Hours	$151.42 /Hour	$6,056.80
Project Engineer/Project Geologist	90.0 Hours	$91.62 /Hour	$8,245.80
Assistant Engineer/Assistant Geologist	60.0 Hours	$88.19 /Hour	$5,291.40
Laboratory Technician	4.0 Hours	$49.53 /Hour	$198.12
Report Preparation			
Senior Engineer	60.0 Hours	$151.42 /Hour	$9,085.20
Project Engineer/Project Geologist	50.0 Hours	$91.62 /Hour	$4,581.00
Assistant Engineer/Assistant Geologist	12.0 Hours	$88.19 /Hour	$1,058.28
Project Management		/Hour	
Principal in Charge	2.0 Hours	$189.79 /Hour	$379.58
Project Manager	10.0 Hours	$151.42 /Hour	$1,514.20
Administrative Assistant	2.0 Hours	$80.00 /Hour	$160.00
QC/QA Review			
QC/QA Reviewer	6.0 Hours	$68.79 /Hour	$412.74
			$52,044.02

SUMMARY

DRILLING, SAMPLING & INSITU TESTING			$39,004.50
LABORATORY TESTING			$7,522.00
TRAFFIC CONTROL			$3,000.00
FIELD VEHICLES & MILEAGE			$810.00
REPORT REPRODUCTION			$100.00
			$ 50,436.50
ENGINEERING, REPORTING & MANAGEMENT			
Principal in Charge	2.0 Hours	$189.79 /Hour	$379.58
Project Manager	10.0 Hours	$151.42 /Hour	$1,514.20
Senior Engineer	100.0 Hours	$151.42 /Hour	$15,142.00
Project Engineer/Project Geologist	160.0 Hours	$91.62 /Hour	$14,659.20
Assistant Engineer/Assistant Geologist	222.0 Hours	$88.19 /Hour	$19,578.18
Laboratory Technician	4.0 Hours	$49.53 /Hour	$198.12
Administrative Assistant	2.0 Hours	$80.00 /Hour	$160.00
QC/QA Reviewer	6.0 Hours	$68.79 /Hour	$412.74
	506.0		**$52,044.02**
		TOTAL	**$ 102,480.52**

1145 N Main Street
Lombard, IL 60148
630 953-9928

DRAFT FOR REVIEW

LAKOTA

June 27, 2013
Revised July 11, 2013

143RD STREET GEOMETRY & STREETSCAPE
VILLAGE OF ORLAND PARK, ILLINOIS

Professional Services Agreement between THE LAKOTA GROUP and CHRISTOPHER B. BURKE ENGINEERING, LTD.

PROJECT APPROACH

The Lakota Group appreciates the opportunity to support the Christopher B. Burke Engineering, Ltd. (CBBEL) Team in the preparation of streetscape designs and construction documents for portions of 143rd Street within the Village of Orland Park, Illinois. It is Lakota's understanding that we will be providing the Team with land planning and landscape architecture services necessary in completing the desired tasks for the Village.

Lakota and CBBEL have successfully collaborated on several other streetscape projects within the Chicagoland Region, and Lakota will bring the same level of thought, creative design, and attention to detail to the 143rd Street project.

PROJECT SCOPE | TASKS

The following are the tasks and deliverables The Lakota Group will provide to assist The Village of Orland Park and Christopher B. Burke Engineering in the preparation of geometric and streetscape improvements for 143rd Street.

CONTRACT 1. PHASE II – WILL/COOK ROAD TO WOLF ROAD

Work Task 1 – Phase II Kick-off Meeting:

1. Attend and participate in kick-off meeting with the Village.

Work Task 8 – Pre-Final Contract Documents and Cost Estimate (75% Submittal):

1. Prepare pre-final contract documents for landscape/streetscape within the defined area.
2. Prepare any necessary specifications for landscape/streetscape with the defined area.
3. Prepare estimate of construction cost for the study area.

Work Task 13 – Final Construction Documents and Cost Estimate (90% Submittal)

1. Participate in review meeting with Village Staff.
2. Based upon input received from Staff, modify construction documents, specifications and estimates of construction.

Work Task 14 – Bidding Documents and Final Construction Estimates (100%) Submittal

1. Based upon final input received from Staff and IDOT, modify construction documents, specifications and estimates of construction.

CONTRACT 2. PHASE I – WOLF ROAD TO BEACON AVENUE

Work Task 6 – Alternate Geometric/Streetscape Concepts – Old Orland/Downtown Area:

1. Attendance and participation with the Village and design team to discuss project goals, timing and materials.
2. Coordinate with CBBEL to receive base materials for the study area.
3. Conduct in-field analysis of existing conditions. Document surrounding land use and character.
4. Meet with Design Team to review and discuss potential alternative concepts for modified intersection of 143rd and Southwest Highway.
5. Develop a range of land use and streetscape enhancement concepts supporting each of the intersection alternatives. Prepare supporting graphics including plans, sections, elevations, photo-simulations, three-dimensional graphics and photographic examples. The goal of the land use plans will be to identify and test the impacts on adjacent properties and redevelopment opportunities created by the intersection alternatives. The streetscape concepts will identify opportunities to enhance the public right-of-way around the modified intersection.
6. Identify potential streetscape and lighting elements, coordinating with Village on any preferred elements from the Old Orland/Downtown area.
7. Meet with Design Team to review, refine and finalize the alternative concepts.
8. Present alternative concepts to one meeting with Village Staff.
9. Develop and refine preferred land use and streetscape enhancement plans. Create graphics suitable for public presentation.

Work Task 13 – Forest Preserve Coordination 4(f) Evaluation:

1. Conduct meeting or conference call with Forest Preserve to identify goals and approach to tree mitigation. Identify if Forest Preserve prefers a mitigation plan or fee-in-lieu of approach. A Forestry Management consultant may be required to help develop a tree survey for the impacted area. In which case, Lakota will provide analysis and input on appropriate mitigation/replacement values.
2. Prepare a tree preservation plan or memorandum summarizing the mitigation approach.

Work Task 14 – Public Involvement/Meetings:

1. Participate in three (3) stakeholder meetings with property owners
2. Present as part of the Team at one (1) Village Committee Meeting
3. Prepare and present at one (1) Public Hearing – Open House Format
4. In addition to the meetings identified above and in preceding Work Tasks, participate in one (1) additional meeting with Village Staff
5. Participate in one (1) meeting with IDOT- District One

CONTRACT 3. PHASE II – WOLF ROAD TO BEACON ROAD

Work Task 1 – Phase II Kick-off Meeting:

1. Attend and participate in kick-off meeting with the Village.

Work Task 7 – Pre-Final Contract Documents and Cost Estimate (75% Submittal):

1. Prepare pre-final contract documents for landscape/streetscape within the defined area.
2. Prepare any necessary specifications for landscape/streetscape with the defined area.
3. Prepare estimate of construction cost for the study area.

Work Task 14 – Final Construction Documents and Cost Estimate (90% Submittal)

1. Participate in review meeting with Village Staff.
2. Based upon input received from Staff, modify construction documents, specifications and estimates of construction.

Work Task 15 – Bidding Documents and Final Construction Estimates (100%) Submittal

1. Based upon final input received from Staff and IDOT, modify construction documents, specifications and estimates of construction.

ESTIMATED TIME OF COMPLETION

Lakota will work closely with CBBEL and Village Staff to refine the project scope, timing and manage the project.

PROJECT TERMS

Professional fees and reimbursable expenses for this assignment are estimated as follows:

Contract 1. Phase II – Will/Cook Road to Wolf Road	$7,800
Contract 2. Phase I – Wolf Road to Beacon Avenue	$48,000
Contract 3. Phase II – Wolf Road to Beacon Avenue	$16,500
Professional Fee Total:	$72,300
Estimated Project Expenses (5% of fee)	$3,600
Total Project Budget	**$75,900**

Expenses will be billed at 1.1 time's direct expense to cover administration and will include:

- **Travel** (mileage/tolls/parking/cabs/airfare/out-of-region meals & lodging)
- **Delivery** (postage/messenger/express)
- **Copying/Reproduction**
- **Sign Mock-Ups**
- **Long Distance Communication**
- **Renderings/Models** (if requested by client)
- **Miscellaneous | Special Project Supplies** (municipal documents, special reports, data)

The above fee estimates can be adjusted based on clarifications or changes to the work scope made by the Village. The fee includes all the meetings and site visits outlined in the Project Scope | Tasks. It does not include any additional meetings, project reviews, presentations, studies, plans, or designs other than those outlined above. If requested for Village budgeting purposes, the team will provide fee estimates for additional tasks.

Any additional services requested of Lakota will be billed on an hourly rate basis according to current hourly rates.

Lakota Hourly Billing Rates (2013):

• **Principal**	$240
• **Associate Principal**	$210
• **Vice President**	$190
• **Senior Associate**	$170
• **Project Planner/Designer/Manager**	$140
• **Planner/Designer**	$100-120
• **Research/Drafting Staff**	$85

REIMBURSABLE EXPENSES

CBBEL will reimburse The Lakota Group for documented out-of-pocket expenses submitted in writing, including but not limited to transportation, lodging, meals, parking, tolls, copying/reproduction, printing/plotting, postage/express deliveries and others as applicable.

PAYMENT SCHEDULE

Professional fees and expenses will be billed monthly for work completed. Unpaid invoices will bear 1.5% interest per month past 30 days. Either party may terminate this agreement 15 days after written notice. Lakota shall be compensated for all services performed up to this date.

OWNERS RESPONSIBILITIES

The owner shall provide full information about the objectives, schedule, constraints and existing conditions of the Project, and shall establish a budget that includes reasonable contingencies and meets the Project requirements. The Owner shall provide decisions and furnish required information as expeditiously as necessary for the orderly progress of the Project. The Owner shall furnish consulting services not provided by Lakota, but required for the Project, such as surveying, which shall include property boundaries, topography and utilities.

Please indicate acceptance of this agreement by signing one copy and returning it to our office listed below. Lakota will begin work after receiving written authorization to proceed via fax, mail or messenger.

The Lakota Group appreciates the opportunity to provide Christopher B. Burke Engineering with Professional Planning and Design Consulting Services.

Scott Frees, RLA, ASLA
Principal
The Lakota Group
212 W. Kinzie Street, Floor 3
Chicago, Illinois 60654
312.467.5445 / 312.467.5484 (fax)

_____
Name

_____
Title/Christopher B. Burke Engineering, Ltd.

_____
Date

Huff & Huff, incorporated
environmental engineers and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: http://huffnhuff.com

June 25, 2013

Mr. Jason G. Souden, PE
Vice President, Head, Civil Design Department
Christopher B. Burke Engineering, Ltd.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018

Re: **Environmental Services (Noise Analysis)**
143rd Street Improvements – Wolf Road to Southwest Highway
Orland Park, Cook County, Illinois
Proposal No. T13-078N

Dear Mr. Souden:

Huff & Huff, Inc. (H&H) is pleased to submit this proposal to reanalyze the traffic noise analysis for the above referenced project. This proposal presents our project approach, the scope of services, and cost for completing the project.

1. INTRODUCTION

Christopher B. Burke Engineering, Ltd. (CBBEL) has requested a scope of services to analyze the traffic noise for 143rd Street from Wolf Road to Southwest Highway. This includes updating the previously developed traffic noise model completed (2003) to reflect any changes in geometry to 143rd Street and to ensure that the model conforms to the current IDOT Traffic Noise Policy. A new traffic noise report will be developed based on the results of the update.

2. SCOPE OF SERVICES

1. Field Review/Noise Monitoring

A field review will be conducted to verify existing land use and noise sensitive receptors within the project limits. It is anticipated that additional receptors will be added due to changes in land use from the original analysis.

During the field review, noise monitoring will be conducted to evaluate the existing noise environment. Noise monitoring will be conducted between 10 and 15 minutes at between three and four receptor locations along the project corridor. This information will be used to validate the existing scenario traffic noise model.

2. Noise Model Update

H&H will review the noise model completed as part of the original Noise Analysis (2003) and modify it as necessary to evaluate traffic noise for the 143rd Street project. The model will be updated to reflect the new existing year (2013) and the future year (2040 build and no build) traffic volumes. Traffic volumes will be provided by CBBEL in the form of ADT or peak hour. If 2013 or 2040 volumes are not available, these volumes will be interpolated/extrapolated from the years provided. If ADTs are provided, an appropriate K-factor will be provided to assist in determining peak hour volumes. Truck traffic percentages will be provided for the peak hour for the existing and future conditions, with a breakdown of medium (single-unit) and heavy (multi-unit) trucks. If no new information is available, the K-factor and truck percentages used in the 2003 study will be applied to the new traffic volumes.

If any geometric changes have been made to the proposed 143rd Street since the original analysis, data needs for the model will include Microstation files of topographical information and geometry (including profile and cross-sections). This information will be provided to H&H from CBBEL. The traffic noise impact evaluation will be based on the preferred build alternative. If the traffic noise evaluation warrants a noise abatement evaluation, the noise mitigation will be developed to address the vehicular traffic. It is anticipated that the abatement analysis will need to be reevaluated at multiple receptors in order to comply with the new IDOT policy.

Additionally, land use in the project area will need to be reviewed for additional receptors, permitted developments, and current zoning plans. Permitting information and zoning information will be provided by CBBEL. A noise contour map will be generated for undeveloped lands that are zoned or planned for future development in a zoning map or comprehensive plan. The noise contour map will be sent to local officials for use in future compatible land use planning.

3. Noise Report

The traffic noise monitoring, noise analysis, and noise abatement evaluation (if warranted) results will be presented in a technical memorandum for the environmental documentation.

Where noise abatement measures are determined to be feasible and reasonable based on traffic noise reductions and cost-effectiveness will need to be reviewed with benefited receptors. *Letters will be delivered to benefited receptors by CBBEL.* Based on the responses received, the local desire for the noise abatement measure will be assessed according to IDOT policy.

3. ESTIMATED COST

The cost estimate for this Work Plan is presented in the attached Cost Estimate of Consultant Services (CECS). The manhour estimate is summarized below:

Task	Estimated Manhours
Field Review/Noise Monitoring	6
Noise Modeling Update	40
Noise Report	51
Total	**97**

4. PROJECTED TIMELINE

The project tasks will be initiated within two weeks from the Notice to Proceed and receiving of requested materials.

Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises

FIRM NAME	Huff & Huff, Inc.	**DATE**	6/25/2013
PRIME/SUPPLEMENT	CBBEL	**PTB NO.**	
CONTRACT TERM	6 MONTHS	**OVERHEAD RATE**	137.58%
START DATE	7/1/2013	**COMPLEXITY FACTOR**	0
RAISE DATE	1/1/2014	**% OF RAISE**	3.00%

ESCALATION PER YEAR

7/1/2013 - 1/1/2014				
6				
6				

= 100.00%
= 1.0000

The total escalation for this project would be: 0.00%

Illinois Department of Transportation

Payroll Rates

FIRM NAME Huff & Huff, Inc. DATE 6/25/2013
PRIME/SUPPLEMENT CBBEL
PTB NO.

ESCALATION FACTOR 0.00%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal	$65.84	$65.84
Senior Project Manager	$56.60	$56.60
Senior Transp. Planner	$37.91	$37.91
Senior Engineer III	$0.00	$0.00
Senior Engineer II	$35.64	$35.64
Senior Engineer I	$35.72	$35.72
Senior Scientist IV	$46.32	$46.32
Senior Scientist III	$36.05	$36.05
Senior Scientist II	$27.84	$27.84
Senior Scientist I	$0.00	$0.00
Senior Geologist I	$33.44	$33.44
Transportation Planner	$0.00	$0.00
Project Engineer II	$33.48	$33.48
Project Engineer I	$26.98	$26.98
Project Scientist I	$20.18	$20.18
Project Geologist I	$19.00	$19.00
Project Associate	$24.00	$24.00
Senior CADD I	$36.72	$36.72
CADD II	$26.78	$26.78
CADD I	$20.16	$20.16
Admin. Manager I	$32.52	$32.52
Administrative IV	$22.00	$22.00
Administrative III	$0.00	$0.00
Administrative II	$20.00	$20.00
Administrative I	$0.00	$0.00
Interns	$16.00	$16.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

Illinois Department of Transportation

Cost Estimate of Consultant Services
(CPFF)

Firm	Huff & Huff, Inc.
Route	143rd
Section	Wolf to Southwest Highway
County	Cook
Job No.	
PTB & Item	

Date 6/25/2013

Overhead Rate **137.58%**

Complexity Factor **0**

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
01 Field Review / Noise Monitoring	6	200.88	276.37	11.30	71.54	0.00	0.00	560.10	6.05%
02 Noise Modeling Update	40	1,390.60	1,913.19	0.00	483.93	0.00	0.00	3,787.72	40.94%
03 Noise Report	51	1,778.00	2,446.17	35.25	623.86	20.00	0.00	4,903.28	53.00%
TOTALS	97	3,369.48	4,635.73	46.55	1,179.33	20.00	0.00	9,251.09	100.00%

Method of Compensation:

Cost Plus Fixed Fee 1	[X] 14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	[ ] 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	[ ] 14.5%[(2.3 + R)DL + IHDC]
Specific Rate	[ ]
Lump Sum	[ ]

Illinois Department of Transportation

Average Hourly Project Rates

Route	143rd
Section	Wolf to Southwest Highway
County	Cook
Job No.	
PTB/Item	

Consultant: Huff & Huff, Inc.

Date: 6/25/2013

Sheet 1 OF 1

Payroll Classification	Total Project Rates			Field Review / Noise Monitorir			02 Noise Modeling Update			03 Noise Report								
	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	1	1.03%	0.68							1	1.96%	1.29						
Senior Scientist III	40	41.24%	14.87				20	50.00%	18.03	20	39.22%	14.14						
Project Engineer II	51	52.58%	17.60	6	100.00%	33.48	20	50.00%	16.74	25	49.02%	16.41						
Senior CADD I	3	3.09%	1.14							3	5.88%	2.16						
Administrative IV	2	2.06%	0.45							2	3.92%	0.86						
	0																	
	0																	
	0																	
	0																	
TOTALS	97	100%	$34.74	6	100%	$33.48	40	100%	$34.77	51	100%	$34.86	0	0%	$0.00	0	0%	$0.00

SUMMARY OF INHOUSE DIRECT COSTS

Project: CBBEL - 143rd Wolf to SW Highway

								DIRECT
Task 1 - Field Review / Noise Monitoring								
Trips - Company	20 miles	x	1	x	$ 0.565	=	$	11.30
					Task Total		$	**11.30**
Task 2 - Noise Modeling Update								
					Task Total		$	-
Task 3 - Noise Report								
Reproduction	3 sets	x	300	x	$ 0.03	=	$	27.00
Color copies	3 sets	x	25	x	$ 0.11	=	$	8.25
					Task Total		$	**35.25**
					GRAND TOTAL		$	**46.55**

P:\Proposal-2013\CBBEL\[CBBEL 143rd Wolf to SW Noise DC.xls]Inhouse Direct Costs

SUMMARY OF OUTSIDE DIRECT COSTS

Project: CBBEL - 143rd Wolf to SW Highway

				OUTSIDE
Task 1 - Field Review / Noise Monitoring				
		Task Total	**$**	**-**
Task 2 - Noise Modeling Update				
		Task Total	**$**	**-**
Task 3 - Noise Report				
Federal Express	1 x	$ 20.00 =	$	20.00
		Task Total	**$**	**20.00**
		GRAND TOTAL	**$**	**20.00**

P:\Proposal-2013\CBBEL\[CBBEL 143rd Wolf to SW Noise DC.xls]Inhouse Direct Costs

Huff & Huff, incorporated
environmental engineers
and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: http://huffnhuff.com

June 25, 2013

Mr. Jason G. Souden, PE
Vice President, Head, Civil Design Department
Christopher B. Burke Engineering, Ltd.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018

Re: Environmental Services (PESA and PSI)
143rd Street Improvements – Wolf Road to Southwest Highway
Orland Park, Cook County, Illinois
Proposal No.: T13-077

Dear Mr. Souden:

Huff & Huff, Inc. (Consultant) is pleased to submit this proposal to perform a Preliminary Environmental Site Assessment (PESA) and Preliminary Site Investigation (PSI), for the 143rd Street Improvements in Orland Park, Illinois. The project corridor is approximately 9,000 feet in length and includes areas of 143rd Street, extending from Wolf Road to Beacon Avenue. Proposed improvements to 143rd street are associated with adding lanes for both east bound and west bound lanes.

The project will include intersection improvements and new traffic signals at Wolf Road, West Street, 108th Avenue, Crystal Tree Drive and Southwest Highway. The roadway will be widened to 2-11' or 12' lanes in each direction, separated by a 12' or 16' landscaped median/left turn lanes, geometric alternates along with pedestrian accommodations and streetscape improvement will be studied in the Old Orland/Downtown Area near Southwest Highway. A retaining wall will be required adjacent to the Forest Preserve within the 17' permanent easement.

Among other soil sampling, the PSI will require collection of soil samples from within the area of railroad right-of-way (ROW). It is anticipated that geotechnical investigation conducted as part of additional site activities (by others) will require railroad insurance and permitting. Consultant will contract with geotechnical firm (Wang Engineering) to also conduct environmental soil samples as part of PSI activities. This proposal does not include tasks for railroad coordination or insurance / permit costs, as it is anticipated that the existing permits will be used.

A historic PESA was completed for the project corridor in 2002. Based on the passage of time since completion of the historic PESA, a new PESA is required. In order to appropriately address area of concern, PSI activities are planned after completion of the new PESA.

A PESA is considered adequate for assessment regarding placement of soil borings for the PSI phase. The known recognized environmental conditions (RECs) of this area will require sampling to identify soil conditions in the ROW. The PSI phase will include collection of soil samples for assessment of appropriate disposal practices and consideration as Clean Construction Demolition Debris (CCDD). Collection of soil samples for landfill permitting is not included as part of this scope as analytical results should remain applicable based on the construction schedule. This proposal presents our project understanding and the scope of services.

1. SCOPE OF SERVICES

Task 1 - Preliminary Environmental Site Assessment (PESA)

Consultant will prepare a PESA for the 143rd Street corridor. The process will follow general protocols associated with ASTM E1527-05, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the "Preliminary Site Assessment (PESA)" procedures outlined by the IDOT in BDE #66-10A,the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Project", and Bureau of Local Roads Special Waste Procedures.

A. Historical Research

The site's historical land use/ownership record will be developed from standard historical sources in the available reports. Either historical aerial photographs or historical maps, such as Sanborn Fire Insurance Maps, will be reviewed. It is anticipated that select information from the historic PESA will be used.

B. Site Evaluation

Current environmental features and conditions of sites adjacent to the ROW will be evaluated. A site walkover of potential right-of-way areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the project limits. All of the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols.

C. Database Search

A records review or database search will be conducted to update potential environmental concerns within the study area. It will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the outline of the study area.

Specifically, Consultant will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the Illinois Environmental Protection Agency (IEPA) to obtain additional data pertaining to

identified sites. A local source, such as the fire department or building department, will be contacted regarding available records and area history.

D. Report Preparation

One report summarizing the results of the evaluation will be prepared. The following information will be included in this report:

a) The project location and description
b) Historical uses of corridor.
c) The area geology and hydrology.
d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, hazardous waste, wastewater, and PCBs.
e) The environmental records review.
f) An analysis of the site inspection.
g) A summary of the findings regarding any environmental concerns.

Task 2 – <u>Preliminary Site Investigation (PSI)</u>

Consultant has use information from the historic PESA to provide background information for the PSI sampling scope. However, Consultant will also utilize findings of this PESA prior to completion of the PSI. The historic PESA identified 12 sites within approximately 500 feet of the project corridor. Based on available information 20 soil borings are planned to address environmental concerns. Traffic control is anticipated to ensure safety of the drilling personnel and the public given the traffic volumes on 143rd Street. As borings are planned for advancement within the City of Orland Park ROW and the project is being completed for the City, it is anticipated that fees will be waived.

Soil borings will be advanced within the railroad ROW by the driller that is performing geotechnical investigation for the project. It is assumed that additional costs for railroad insurance and permits will not be incurred as part of the PSI.

The borings are planned for advancement to depths ranging from approximately 4 to 16 feet bgs, depending on the proposed improvement. Drilling is planned over a three day period. These borings are needed to address soil management issues.

A. Analytical

Boring locations where petroleum products or other volatile organic compounds represent the primary concern, samples will be field screened with a photoionization detector (PID). The sample with the highest PID reading in each boring will be analyzed for:

- **Volatile Organic Compounds** (up to 6 samples) – VOCs are volatile compounds found in gasoline and related to various solvents;

- **Benzene, toluene, ethylbenzene, and total xylenes (BTEX) as well as methyl-tert-butyl-ether (MTBE)** (up to 16 samples) – BTEX / MTBE are volatile compounds found in gasoline;

- **Polynuclear Aromatic Compounds (PNAs) and pH** (up to 24 samples) – PNAs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

Other field screening factors such as visual, or proximity to potential sources of known contamination to determine which samples will be analyzed to identify the presence of:

- **SPLP RCRA Heavy Metals** (up to 24 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Samples will be analyzed for select RCRA Metals, some of which may require further SPLP for consideration as CCDD. Metals samples will also be analyzed for pH.

- **Herbicides** (up to 4 samples) – Herbicides are used by railroads for week suppression.

C. PSI Report Preparation and CCDD Determination

A report summarizing the results of the soil sample collection activities and analytical results will be prepared. This proposal also includes time for preparing the PE certification needed for CCDD under the new IEPA regulations.

For these tasks, the scope of work includes time necessary to manage the project, including scheduling and coordination with the prime consultant, drillers, and environmental laboratories.

2. PROJECT COST

Costs for these services are not requested at this time.

3. SCHEDULE

We anticipate that work will begin for the PESA within 10 days of the Notice to Proceed and will be completed within 4 weeks from the start date. The rate of completion of the PSI activities is dependent on traffic control access; however, they are planned for completion within 10 weeks from the start date, assuming traffic safety access is obtained.

Please indicate acceptance of this agreement by returning a signed copy of this agreement or a purchase order incorporating the terms of the agreement. We appreciate the opportunity to work with you and look forward to a successful completion of the project. If you have any questions concerning our proposed scope of services or fees, please contact us.

4. CONTRACT TERMS

1. CONSULTANT'S SERVICES: The Consultant's (Huff & Huff, Inc.) services shall consist of those tasks described in Section 2.

2. SCHEDULE: The Consultant's work under this Agreement shall begin within two weeks of receipt of written notice to proceed or a signed copy of this Agreement.

3. COMPENSATION: The fee basis for the scope of work, as outlined in Section 4, pertains to the specific scope work.

4. DIRECTION: For work performed under this Agreement, Consultant shall take direction from the CLIENT.

5. CHANGES: This Agreement may only be changed by written amendment which specifies the terms being revised and which has been signed by both parties hereto.

6. PROJECT DATA: The Consultant, in coordination with the CLIENT, shall obtain from the appropriate sources all data and information necessary for the proper and complete execution of the Consultant's services.

7. INDEPENDENT CONSULTANT: The Consultant shall be deemed to be an independent contractor in all its operations and activities hereunder. The employees furnished by Consultant to perform the work shall be deemed to be Consultant employees exclusively, and said employees shall be paid by Consultant for all services in this connection. The Consultant shall be responsible for all obligations and reports covering Social Security, Unemployment Insurance, Workmen's Compensation, Income Tax, and other reports and deductions required by an applicable state or Federal law.

8. RIGHTS OF WORK PRODUCT: CLIENT shall have unlimited rights in all drawings, designs, specifications, notes, and other work developed in the performance of this contract, including the right to use same on any other work without additional cost to the CLIENT. The Consultant shall not be liable for any use or reuse of the drawings, designs, specifications, notes and other work for use other than intended under the terms of this Agreement.

9. INDEMNIFICATION: The Consultant hereby agrees to indemnify and hold harmless the CLIENT and any proper owners whose property it is necessary to access in the performance of this work, against any and all liability, loss, damages, demands, or actions or causes of action, which may result from any damages or injuries sustained by a person or entity in connection with or on account of any negligent act or omission of the Consultant or its employees relating to its obligations pursuant to this Agreement.

10. TERMINATION: CLIENT may terminate this Agreement at any time upon ten (10) days written notice for whatsoever reason, provided CLIENT shall pay the Consultant a reasonable fee for work satisfactorily performed prior to the effective date of termination. In no case, however, shall the total amount paid to Consultant exceed the amount set out above.

11. INSURANCE: The Consultant shall maintain insurance as set forth in the prime contract, if attached, or as set forth below.

    a. Worker's Compensation and Employer's Liability Insurance: Worker's Compensation in compliance with applicable State and Federal laws.
    b. Comprehensive General Liability Insurance for Bodily Injury and Property Damage to a combined single limit of $2,000,000 per occurrence/claim or an umbrella of $3,000,000.
    c. Comprehensive Automobile Liability Insurance, including owned, hired, and non-owned automobiles, for Bodily Injury and Property Damage to a combined single limit of $1,000,000 per occurrence/$2,000,000 aggregate.
    d. Professional liability insurance $2,000,000 on a claims made basis.

12. STANDARD OF CARE: Services performed by the Consultant under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

13. RETENTION OF RECORDS: Consultant shall maintain complete records of all hours billed and direct costs incurred under this Agreement so as to accurately reflect the services performed and basis for compensation and reimbursement under this Agreement.

14. LEGAL: This Agreement shall be construed and interpreted solely in accordance with the laws of the State of Illinois.

BOTH PARTIES HERETO WARRANT AND REPRESENT that they have full right, power, and authority to execute this Contract.

IN WITNESS THEREOF, the parties hereto have executed this Agreement as of the day and year first specified above.

	CONSULTANT	CLIENT
	HUFF & HUFF, INC.	CHRISTOPHER B. BURKE ENGINEERING, Ltd.
	Linda L Huff	
	Signature	Signature
By:	Linda L. Huff, P.E.	
	Typed Name	Typed Name
	President	
	Officer's Title	Officer's Title
	June 6, 2013	
	Date	Date

Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises

FIRM NAME: Huff & Huff, Inc.
PRIME/SUPPLEMENT: CBBEL

DATE: 6/25/2013
PTB NO.:

CONTRACT TERM	10	MONTHS	
START DATE	7/1/2013		
RAISE DATE	1/1/2014		
OVERHEAD RATE			137.58%
COMPLEXITY FACTOR			0
% OF RAISE			3.00%

ESCALATION PER YEAR

7/1/2013 - 1/1/2014	1/2/2014 - 5/1/2014			
6 / 10	4 / 10			
= 60.00%	41.20%			
= 1.0120				

The total escalation for this project would be: 1.20%

BDE 025 (Rev. 2/06)
PRINTED 6/25/2013, 11:25 AM

Illinois Department of Transportation

Payroll Rates

FIRM NAME Huff & Huff, Inc. DATE 6/25/2013
PRIME/SUPPLEMENT CBBEL
PTB NO.

ESCALATION FACTOR 1.20%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal	$65.84	$66.63
Senior Project Manager	$56.60	$57.28
Senior Transp. Planner	$37.91	$38.36
Senior Engineer III	$0.00	$0.00
Senior Engineer II	$35.64	$36.07
Senior Engineer I	$35.72	$36.15
Senior Scientist IV	$46.32	$46.88
Senior Scientist III	$36.05	$36.48
Senior Scientist II	$27.84	$28.17
Senior Scientist I	$0.00	$0.00
Senior Geologist I	$33.44	$33.84
Transportation Planner	$0.00	$0.00
Project Engineer II	$33.48	$33.88
Project Engineer I	$26.98	$27.30
Project Scientist I	$20.18	$20.42
Project Geologist I	$19.00	$19.23
Project Associate	$24.00	$24.29
Senior CADD I	$36.72	$37.16
CADD II	$26.78	$27.10
CADD I	$20.16	$20.40
Admin. Manager I	$32.52	$32.91
Administrative IV	$22.00	$22.26
Administrative III	$0.00	$0.00
Administrative II	$20.00	$20.24
Administrative I	$0.00	$0.00
Interns	$16.00	$16.19
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

Illinois Department of Transportation

Cost Estimate of Consultant Services (CPFF)

Firm	Huff & Huff, Inc.
Route	143rd
Section	Wolf to Beacon
County	Cook
Job No.	
PTB & Item	

Date 6/25/2013

Overhead Rate **137.58%**

Complexity Factor **0**

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
01 PESA	59	1,837.97	2,528.68	57.85	648.00	400.00	0.00	5,472.51	16.59%
02 PSI	81	2,354.20	3,238.90	99.90	833.75	9,960.40	10,300.00	26,787.14	81.19%
03 QA/QC	6	268.63	369.57	0.00	93.48	0.00	0.00	731.68	2.22%
TOTALS	146	4,460.79	6,137.16	157.75	1,575.23	10,360.40	10,300.00	32,991.34	100.00%

Method of Compensation:

Cost Plus Fixed Fee 1	[X]	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	[ ]	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	[ ]	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	[ ]	
Lump Sum	[ ]	

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Illinois Department of Transportation

Average Hourly Project Rates

Route	143rd
Section	Wolf to Beacon
County	Cook
Job No.	
PTB/Item	

Consultant: Huff & Huff, Inc.

Date: 6/25/2013

Sheet 1 OF 1

Payroll Classification	Total Project Rates			01 PESA			02 PSI			03 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
Principal	8	5.48%	3.65	4	6.78%	4.52	2	2.47%	1.65	2	33.33%	22.21						
Senior Geologist I	24	16.44%	5.56	10	16.95%	5.74	10	12.35%	4.18	4	66.67%	22.56						
Project Engineer I	96	65.75%	17.95	36	61.02%	16.66	60	74.07%	20.23									
Senior CADD I	2	1.37%	0.51	1	1.69%	0.63	1	1.23%	0.46									
CADD II	11	7.53%	2.04	5	8.47%	2.30	6	7.41%	2.01									
Admin. Manager I	1	0.68%	0.23	1	1.69%	0.56												
Administrative IV	4	2.74%	0.61	2	3.39%	0.75	2	2.47%	0.55									
	0																	
	0																	
	0																	
	0																	
TOTALS	146	100%	$30.55	59	100%	$31.15	81	100%	$29.06	6	100%	$44.77	0	0%	$0.00	0	0%	$0.00

SUMMARY OF INHOUSE DIRECT COSTS

Project: CBBEL - 143rd Wolf to Beacon

									DIRECT
Task 1 - PESA									
Trips - Company	40 miles	x	1	x	$	0.565	=	$	22.60
Reproduction	3 sets	x	300	x	$	0.03	=	$	27.00
Color copies	3 sets	x	25	x	$	0.11	=	$	8.25
					Task Total			**$**	**57.85**
Task 2 - PSI									
Trips - Company	40 miles	x	3	x	$	0.565	=	$	67.80
Tolls	0 miles	x	6	x	$	0.850	=	$	5.10
Reproduction	3 sets	x	300	x	$	0.03	=	$	27.00
					Task Total			**$**	**99.90**
Task 3 - QA/QC									
					Task Total			**$**	-
					GRAND TOTAL			**$**	**157.75**

P:\Proposal-2013\CBBEL\[CBBEL 143rd wolf to SW DC.xls]Inhouse Direct Costs

SUMMARY OF OUTSIDE DIRECT COSTS

Project: CBBEL - 143rd Wolf to Beacon

					OUTSIDE
Task 1 - PESA					
Analytical					
Maps/Aerials	1 x	$	180.00	= $	180.00
Federal Express	1 x	$	20.00	= $	20.00
Records Search	1 x	$	200.00	= $	200.00
			Task Total	**$**	**400.00**
Task 2 - PSI					
5035 Kits	22 x	$	15.00	=	$330.00
VOCs	6 x	$	126.00	=	$756.00
BTEX	16 x	$	126.00	=	$2,016.00
PNAs	24 x	$	105.00	=	$2,520.00
pH	24 x	$	8.40	=	$201.60
RCRA	24 x	$	88.20	=	$2,116.80
SPLP	20 x	$	70.00	=	$1,400.00
Federal Express	1 x	$	20.00	=	$20.00
Herbs	2 x	$	300.00	= $	600.00
			Task Total		**$9,960.40**
Task 3 - QA/QC					
			Task Total	**$**	-
			GRAND TOTAL	**$**	**10,360.40**

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SUMMARY OF SERVICES BY OTHERS

Project: CBBEL - 143rd Wolf to Beacon

				OUTSIDE
Task 1 - PESA				
		Task Total	**$**	**-**
Task 2 - PSI				
Driller	2 x	$ 1,800.00	= $	3,600.00
Driller (Geotech)	1	$ 2,200.00	= $	2,200.00
Traffic Control	3 x	$ 1,500.00	= $	4,500.00
		Task Total	**$**	**10,300.00**
Task 3 - QA/QC				
		Task Total	**$**	**-**
		GRAND TOTAL	**$**	**10,300.00**

P:\Proposal-2013\CBBEL\[CBBEL 143rd wolf to SW DC.xls]Services By Others

Huff & Huff, incorporated
environmental engineers and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: http://huffnhuff.com

June 25, 2013

Mr. Jason G. Souden, PE
Vice President, Head, Civil Design Department
Christopher B. Burke Engineering, Ltd.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018

Re: Environmental Services (Tree Survey)
143rd Street Improvements – Wolf Road to Southwest Highway
Orland Park, Cook County, Illinois
Proposal No.: T13-079T

Dear Mr. Souden:

Huff & Huff, Inc. (Consultant) is pleased to submit this proposal to perform a tree survey for proposed 143rd Street between Wolf Road and Southwest Highway in Orland Park, Illinois.

This proposal presents our project understanding, the scope of services, cost, and schedule for completing the project.

1. PROJECT UNDERSTANDING

The project scope relates to conducting a tree survey in Cook County. Huff & Huff, Inc. (H&H) will utilize the appropriate policies and data provided by CBBEL to conduct the field reviews. This includes data tables and a general location map for this project. H&H will complete tables with the compiled field work.

2. SCOPE OF SERVICES

This proposal includes the following scope of services:

- Task 1 – Tree Survey
- Task 2 – Tree Survey Tabulations

Task 1: Tree Survey

Consultant will prepare a tree survey for the project for the proposed alignment for the 143rd Street widening from Wolf Road to Southwest Highway. The survey will be limited to the proposed right-of-way (ROW) and proposed temporary easement areas.

For the area within the Cook County Forest Preserve, the tree survey will be conducted in accordance with current Cook County Forest Preserve policies. This survey will be conducted by a Certified Arborist and include all trees two (2) caliper inches in diameter or greater when measured at four (4) feet above ground level. Consultant will tag or flag the trees for survey by the Client. Consultant will identify the trees to species level and determine health, structure, and origin and will note trees that are of exceptional size and condition. Consultant will determine trees that are worth avoidance.

Task 2: Tree Tabulation

Consultant will complete tabulation tables with the information gathered from the field assessment. Station and offset for the tables will be obtained from the survey by the Client. All data collected in the field concerning health, structure, and origin will be tabulated and summarized on the tables. Recommendations on trees to be avoided or removed will be included.

3. COST ESTIMATE

The cost estimate for this Work Plan is presented in the attached Cost Estimate of Consultant Services (CECS). The manhour estimate is summarized below:

Task	Estimated Hours
1. Data Collection	64
2. Tree Tabulation/Memo	36
TOTAL	**100**

4. SCHEDULE

At the direction of Client, Consultant will complete the tasks described above upon notice to proceed.

Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises

FIRM NAME	Huff & Huff, Inc.	**DATE**	6/25/2013
PRIME/SUPPLEMENT	CBBEL	**PTB NO.**	

CONTRACT TERM	6	MONTHS	**OVERHEAD RATE**		137.58%
START DATE	7/1/2013		**COMPLEXITY FACTOR**		0
RAISE DATE	1/1/2014		**% OF RAISE**		3.00%

ESCALATION PER YEAR

7/1/2013 - 1/1/2014				
6				
6				

= 100.00%
= 1.0000

The total escalation for this project would be: 0.00%

Illinois Department of Transportation

Payroll Rates

FIRM NAME Huff & Huff, Inc. DATE 6/25/2013
PRIME/SUPPLEMENT CBBEL
PTB NO.

ESCALATION FACTOR 0.00%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal	$65.84	$65.84
Senior Project Manager	$56.60	$56.60
Senior Transp. Planner	$37.91	$37.91
Senior Engineer III	$0.00	$0.00
Senior Engineer II	$35.64	$35.64
Senior Engineer I	$35.72	$35.72
Senior Scientist IV	$46.32	$46.32
Senior Scientist III	$36.05	$36.05
Senior Scientist II	$27.84	$27.84
Senior Scientist I	$0.00	$0.00
Senior Geologist I	$33.44	$33.44
Transportation Planner	$0.00	$0.00
Project Engineer II	$33.48	$33.48
Project Engineer I	$26.98	$26.98
Project Scientist I	$20.18	$20.18
Project Geologist I	$19.00	$19.00
Project Associate	$24.00	$24.00
Senior CADD I	$36.72	$36.72
CADD II	$26.78	$26.78
CADD I	$20.16	$20.16
Admin. Manager I	$32.52	$32.52
Administrative IV	$22.00	$22.00
Administrative III	$0.00	$0.00
Administrative II	$20.00	$20.00
Administrative I	$0.00	$0.00
Interns	$16.00	$16.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

Illinois Department of Transportation

Cost Estimate of Consultant Services (CPFF)

Firm	Huff & Huff, Inc.
Route	143rd
Section	Wolf to Southwest Highway
County	Cook
Job No.	
PTB & Item	

Date 6/25/2013

Overhead Rate **137.58%**

Complexity Factor **0**

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
Tree Survey	64	1,536.64	2,114.11	67.80	544.58	0.00	0.00	4,263.13	64.11%
Tabulation & Memo	36	860.93	1,184.47	18.45	302.28	20.00	0.00	2,386.13	35.89%
TOTALS	100	2,397.57	3,298.58	86.25	846.86	20.00	0.00	6,649.26	100.00%

Method of Compensation:

Cost Plus Fixed Fee 1	[X]	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	[ ]	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	[ ]	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	[ ]	
Lump Sum	[ ]	

BDE 025 (Rev. 2/06)

Illinois Department of Transportation

Average Hourly Project Rates

Route	143rd
Section	Wolf to Southwest Highway
County	Cook
Job No.	
PTB/Item	

Consultant: Huff & Huff, Inc.

Date: 6/25/2013

Sheet 1 OF 1

Payroll Classification	Total Project Rates			Tree Survey			Tabulation & Memo											
	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Scientist III	3	3.00%	1.08				3	8.33%	3.00									
Senior Scientist II	42	42.00%	11.69	32	50.00%	13.92	10	27.78%	7.73									
Project Scientist I	52	52.00%	10.49	32	50.00%	10.09	20	55.56%	11.21									
CADD II	1	1.00%	0.27				1	2.78%	0.74									
Administrative IV	2	2.00%	0.44				2	5.56%	1.22									
	0																	
	0																	
	0																	
	0																	
TOTALS	100	100%	$23.98	64	100%	$24.01	36	100%	$23.91	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00