


Municipality	L O C A L A G E N C Y	 Illinois Department of Transportation	C O N S U L T A N T	Name McDonough Associates Inc.
Township				Address 130 E. Randolph Street; Ste 1000
County Lake County – Division of Transportation		City Chicago		
Section 10-00999-11-RS		State Illinois, 60601		

**Preliminary Engineering
Services Agreement
For
Non-Motor Fuel Tax Funds**

THIS AGREEMENT is made and entered into this 14th day of June, 2011 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Non-Motor Fuel Tax Funds, allotted to the LA by the State of Illinois, under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name UTW - Deerfield Parkway and Buffalo Grove Road

Route CH 11&16 Length 0.34 Mi. 1800.00 FT (Structure No. -----)

Termini Busch Parkway and Barclay Blvd and Buffalo Grove Road at Sandalwood Road

Description:
The Ultra-Thin Whitetopping (UTW) of 1600 ft of Deerfield Parkway and 200 ft of Buffalo Grove Road at Sandalwood Road.

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
 - a. Make such detailed surveys as are necessary for the preparation of detailed roadway plans
 - b. Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
 - c. Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
 - d. Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
 - e. Prepare Army Corps of Engineers Permit, **Lake County Stormwater Management Commission Permit**, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
 - f. Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
 - g. Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with **one (1) copy of each document in both hardcopy and electronic format**. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.
 - h. Furnish the LA with survey and drafts in **duplicate** of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
 - i. Assist the LA in the tabulation and interpretation of the contractors' proposals

Draft

- j. Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
 - k. Prepare the Project Development Report when required by the DEPARTMENT.
 - l. **Services as included and/or defined in the attached Scope of Services.**
2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies ~~of the LA of the DEPARTMENT~~. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA ~~and the DEPARTMENT~~.
 3. To attend conferences at any reasonable time when requested to do so by representatives of the LA ~~or the Department~~.
 4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.
 5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA ~~or the DEPARTMENT~~ without cost and without restriction or limitations as to their use.
 6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:
 - a. A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
 - b. A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

Schedule for Percentages Based on Awarded Contract Cost

Awarded Cost	Percentage Fees	(see note)
Under \$50,000	_____	%
	_____	%
	_____	%

Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus 1.793 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent.

"Cost to Engineer" to be verified by furnishing the LA ~~and the DEPARTMENT~~ copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

The Total Not-to-Exceed Contract Amount shall be \$57,604.41

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:
 - a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA ~~and their approval by the DEPARTMENT~~, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.
 - b. Upon award of the contract for the improvement by the LA ~~and its approval by the DEPARTMENT~~, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 1.793 percent incurred up to the time the ENGINEER is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of the LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, ~~after they have been approved by the DEPARTMENT~~, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 1.793 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA ~~and their approval by the DEPARTMENT~~, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA ~~and the DEPARTMENT~~.
4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER's has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in triplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

County of Lake of the
(Municipality/Township/County)

ATTEST:

State of Illinois, acting by and through its

By _____

County Board

Lake County Clerk

By _____

(Seal)

Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Martin G. Buehler, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

McDonough Associates Inc
Engineering Firm
130 E. Randolph Street; Ste 1000
Street Address
Chicago, IL 60601
City, State

ATTEST:

By _____ (Michael P. Hannemann)

By _____ (Feroz Nathani)

Title Senior Vice President

Title President

Note: Three (3) Original Executed Contracts - (2) LCDOT; (1) Consultant



WORK PLAN – DEERFIELD PARKWAY and BUFFALO GROVE ROAD UTW

Our team proposes to assist the Lake County – Division of Transportation (LCDOT) by providing engineering consulting services for the Ultra-Thin Whitetopping (UTW) – Deerfield Parkway and Buffalo Grove Road MFT Funded Project. The services are for Surveying Data Collection and Design Engineering in accordance with the Illinois Department of Transportation (IDOT), Bureau of Local Roads and Streets, and LCDOT guidelines for the preparation of contract plans according to IDOT and LCDOT design criteria and will be based on the latest “Standard Specifications for Road and Bridge Construction”. Our team will begin Design Engineering for the Project, based upon the Lake County Project Scoping Report received May 10, including the comments to include Sidewalk and operational limits for concrete material delivery.

ENGINEERING SERVICES - Design

McDonough Associates Inc. (MAI) believes the following points are key to a successful and timely completion of the Phase II Plans, Specifications and Estimate:

- Early and often coordination with all parties involved
- Timely Plan preparation and approval
- Effective QA/QC in-house plan review to minimize plan comments and external review time
- Staged submittals to expedite plan approval
- Familiarity with IDOT PS&E preparation

In order to accomplish our goals the following work tasks would be completed as part of the Scope of Design according to IDOT and LCDOT guidelines and MAI procedures:

Kick Off Meeting and Site Tour

Upon Notice to Proceed, the design team will conduct a kickoff meeting with the Lake County DOT. The purpose of the meeting will be to acquaint the agency with the design team. The meeting agenda will include the scope of work, project limits, project schedule, goals and objectives, confirm roles and responsibilities, establish communication protocol and review project deliverables. We also recommend a site tour on that same day.

Surveys

The survey will include:

- Development of Plats of Survey of Parcels in Proposed Sidewalk Area
- The survey control and centerline alignment.
- A level circuit will be run, closed and checked.
- Topographic survey will be performed for all roadways within the limits of the project. The limits of the topographic survey will extend 20' beyond the ROW where possible, and where not possible will include all building features.
- Cross sections will be surveyed to the limits outlined above at 50-foot intervals, all driveways and intersections and other critical locations.
- Existing right-of-way where identified on the surface, will be located and identified. Existing right-of-way will be determined and located using existing information.
- Surface Utilities will be located and identified.



- Survey data will be plotted and field checked for accuracy.

There are many milestones that will need to be met along the way to ensure the project stays on schedule. Our team is confident that we have both the expertise to complete a quality set of plans on time as well as an excellent working relationship with the Illinois Department of Transportation (IDOT) to minimize corrections and revisions and expedite approval times for any necessary submittals, and we feel that will translate to the same for the LCDOT.

Our team will work closely with staff from LCDOT. As the owner of these facilities, it is imperative that the final product satisfies the needs and desires of the County. Our staff will also be available at the County's request and direction to meet with concerned residents and business owners.

The construction plans will be prepared in accordance with IDOT's and LCDOT requirements. IDOT pay items and standard specifications will be used.

Below is a more detailed account of the Phase II Engineering Services:

Design

Pavement Design – UTW, verification of Project Scoping Report recommendations

Preparation of Roadway Contract Plans (Per IDOT BLRS and LCDOT Plan Preparation Guidelines)

Cover Sheet
General Notes and Summary of Quantities
Schedule of Quantities
Typical Sections
Erosion Control Plan
Maintenance of Traffic Plan
Roadway Exist Cond. And Pavement Removal Plan
Roadway UTW/Joint and Sidewalk Plan
Pavement Marking Plans
Miscellaneous Details
IDOT and LCDOT Standards
Cross Sections (Sidewalk)

Preparation of Roadway Specifications (Per IDOT BLRS and LCDOT)

Per LCDOT Special Provisions Guidelines

Preparation of Construction Estimates

Construction Cost Estimate (BDE 213A)
Estimate of Time Required (BDE 220)



Administration

Attend one pre-construction conference.

QA/QC

John Naughton, a senior staff member with years of experience with UTW will be involved in the project from beginning to end. Mr. Naughton will review the contract plans for technical accuracy. The constructability review will be performed by an experienced Phase III team member. This review ensures that the project will be constructed with the most current and cost effective methods and materials available. These reviews have proven successful in reducing the number of additions to the contract during construction.

Coordination

The east end of the project on Deerfield Road is located in the 100 year floodplain. Though we do not feel this project will negatively impact the floodplain, we will attend a Pre-Application meeting with the LCSMC to discuss the project. We will also attend necessary coordination meetings with the Village of Buffalo Grove.

In an effort to minimize the impact to the businesses and homeowners located within the project limits, we will coordinate with the LCDOT throughout the Design process to ensure that we include the proper work restrictions in the construction plans. We anticipate including language in the contract that restricts the work in front of businesses as follows:

1. Defining which roads/drives can be fully closed versus stage construction.
2. Businesses with more than one entrance – Only one entrance will be allowed to be closed at any one time.
3. Businesses with only one entrance – The entrance will have to be constructed half at a time while maintaining access on the other half.
4. Limit the amount of time that an entrance can be closed (partially closed) and also language restricting the days of the week that the entrances can be closed (partially closed).
5. Requires the contractor to coordinate with the business owners a specified time in advance of any road or entrance closures.

Our team will work with LCDOT to determine which restrictions are appropriate for the business to minimize any negative economic impact of the project.

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

McDonough Associates DATE
Prime
LCDOT

06/01/11

ESCALATION FACTOR 2.25%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Civil Project Manager	\$68.38	\$70.00
Civil Project Engineer	\$57.59	\$58.89
Civil Senior Engineer	\$52.13	\$53.30
Civil Engineer	\$44.57	\$45.57
Civil Junior Engineer	\$32.85	\$33.59
Structural Project Manager	\$67.65	\$69.17
Structural Project Engineer	\$61.10	\$62.47
Structural Senior Engineer	\$54.95	\$56.19
Structural Engineer	\$46.53	\$47.58
Structural Junior Engineer	\$32.72	\$33.46
Electrical Project Manager	\$67.25	\$68.76
Electrical Senior Engineer	\$47.40	\$48.47
Electrical Engineer	\$38.20	\$39.06
Electrical Junior Engineer	\$32.75	\$33.49
Survey Party Chief	\$43.75	\$44.73
Survey Instrument Man	\$40.50	\$41.41
Survey Technician	\$32.00	\$32.72
Senior Technician/Drafter	\$33.58	\$34.34
Technician/Drafter	\$27.30	\$27.91
Junior Technician Drafter	\$20.83	\$21.30
Clerical	\$28.77	\$29.42
Summer Interns	\$17.00	\$17.38
Principal	\$70.00	\$70.00

DEERFIELD PARKWAY and BUFFALO GROVE ROAD ULTRA-THIN WHITETOPPING - EXHIBIT A
Lake County Division of Transportation

Scope of Work

The project objective is to prepare Phase II Contract Plans and Specifications for the Ultra-Thin Whitetopping improvement of approx. 1800 feet of Deerfield Parkway between Busch Parkway and Barclay Blvd and Buffalo Grove Road at Sandalwood Road. The improvement will also include the placement of new sidewalk along the north side of Deerfield Parkway in this limit where none currently exists, either within, or just out of the existing ROW, depending on existing tree locations. Plats of survey have been included for sidewalk alignment needs. Approximate total length of project is 2,000 feet. All work will be performed in full accordance with IDOT and LCDOT standards, procedures, requirements and criteria.

1. Ground Survey

	Man-hours	Direct Costs
Survey		
Establish Project Control	24	
Cross Sections at 50 Foot intervals	32	
Full Topography	40	
CADD & Q/C	20	
Survey Materials		\$ 100.00
Field Trips to Site (8 trips at \$45)		\$ 360.00
Sub-Total	116	\$ 460.00

2. Roadway - Contract Plans, Specifications and Estimate

	Sheets	Hrs/Sheet	Man-hours	Direct Costs
Cover Sheet (incl. Pavt design)	1	16	16	
Plan Index, General Notes and Legend	1	14	14	
Quantities and Schedules	2	12.5	25	
Alignment, Ties, Benchmarks and Right-Of-Way Corners	1	4	4	
Traffic Control Drawings (3 Stages)	12	3.667	44	
Typical Cross Section Drawings	2	10	20	
Roadway Removal Plan - Deerfield	2	12	24	
Roadway UTW Joint Plan/Sidewalk - Deerfield	4	5.5	22	
Roadway Removal Plan - Buffalo Grove/Sandalwood	1	10	10	
Roadway UTW Joint Plan - Buffalo Grove/Sandalwood	1	11	11	
SWPPP Plan	1	9	9	
Pavement Marking Plans	4	6.5	26	
Cross Sections - Sidewalk (every 50 feet)	2	4.5	9	
Details	2	5.5	11	
Specifications and Special Provisions			23	
Engineering Cost Estimate			10	
Quantity and Design Calculations			10	
Computer Plotting, Xerox Copies and Reproductions				\$ 500.00
Sub-Total	36		288	\$ 500.00

3. Plat Preparation

	Man-hours	Direct Costs
Field Investigation	12	
Data Collection	16	
Analyze Data and Legal Records	8	
CADD - Plats and Legals	16	
Sub-Total	52	\$ 45.00

4. Meetings and Coordination

	Man-hours	Direct Costs
Project Management	20	
QA/QC	12	
Client Coordination Meetings	8	
Constructability Review	8	
Buffalo Grove/Business Meetings	24	
Environmental Coordination	5	
Sub-Total	77	\$ 135.00

TOTAL -

533

**PAYROLL ESCALATION TABLE
FIXED RAISES**

FIRM NAME
PRIME/SUPPLEMENT

McDonough Associates Inc.
Prime

DATE 06/01/11
PTB NO. LCDOT

CONTRACT TERM
START DATE 6/1/2011 MONTHS 4
RAISE DATE 7/1/2011

OVERHEAD RATE 143.30%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

6/1/2011 - 7/1/2011	7/2/2011 - 10/1/2011		
1	3		
4	4		

= 25.00%
= 1.0225

77.25%

The total escalation for this project would be:

2.25%

AVERAGE HOURLY PROJECT RATES

FIRM
PSB
PRIME/SUPPLEMENT

McDonough Associates Inc.
 LCDOT
 Prime

DATE 06/01/11

SHEET 1 OF 1

PAYROLL CLASSIFICATION	TOTAL PROJECT RATES			1. Survey			2. Plan Preparation			3. ROW Documents			4. Meetings and Coordination			Hours	% Part.	Wgtd Avg
	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Civil Project Manager	0																	
Civil Project Engineer	25	4.69%	2.76												25	32.47%	19.12	
Civil Senior Engineer	20	3.75%	2.00				20	6.94%	3.70									
Civil Engineer	36	6.75%	3.08				24	8.33%	3.80						12	15.58%	7.10	
Civil Junior Engineer	284	53.28%	17.90				244	84.72%	28.46						40	51.95%	17.45	
Structural Project Manager	0																	
Structural Project Engineer	0																	
Structural Senior Engineer	0																	
Structural Engineer	0																	
Structural Junior Engineer	0																	
Electrical Project Manager	0																	
Electrical Senior Engineer	0																	
Electrical Engineer	0																	
Electrical Junior Engineer	0																	
Survey Party Chief	16	3.00%	1.34															
Survey Instrument Man	84	15.76%	6.53	4	3.45%	1.54								12	23.08%	10.32		
Survey Technician	68	12.76%	4.17	64	55.17%	22.85								20	38.46%	15.93		
Senior Technician/Drafter	0			48	41.38%	13.54								20	38.46%	12.58		
Technician/Drafter	0																	
Junior Technician Drafter	0																	
Clerical	0																	
Summer Interns	0																	
Principal	0																	
TOTALS	533	100%	\$37.78	116	100.00%	\$37.93	288	100%	\$35.96	52	100%	\$38.84	77	100%	\$43.67	0	0%	\$0.00