

Municipality McHenry County	L O C A L A G E N C Y	 Illinois Department of Transportation Preliminary Engineering Services Agreement For Motor Fuel Tax Funds	C O N S U L T A N T	Name Gewalt Hamilton Associates, Inc.
Township Various				Address 625 Forest Edge Drive
County McHenry				City Vernon Hills
Section 15-00444-00-ES				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 2015 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. 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 2015 24-Hr / ADT Traffic Data Collection

Route Various Length _____ Mi. _____ FT (Structure No. _____)

Termini _____

Description:
24-Hour machine counts, 48-Hour Pedestrian and Bicycle Counts, Engineering Assistance

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, 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 five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
 - h. Furnish the LA with survey and drafts in quadruplicate 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.

Note: Four copies to be submitted to the Regional Engineer

- i. Assist the LA in the tabulation and interpretation of the contractors' proposals
 - 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.
- (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 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 he will perform such work without expense to the LA, even though final payment has been received by him. He 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 him and will show his professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 2, 3, 5 and 6 in accordance with one of the following methods 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: **SEE EXHIBITS B AND C FOR PROJECT COSTS**

Schedule for Percentages Based on Awarded Contract Cost

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

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

2. To pay for services stipulated in paragraphs 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k of the ENGINEER AGREES at actual cost of performing such work plus _____ 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 his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under the paragraph 1b, 1c, 1d, 1e, 1f, 1h, 1j & 1k. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge.

"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.

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 paragraphs 1a through 1g under 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 paragraphs 1a, through 1h and prior to the completion of such services, the LA shall reimburse the ENGINEER for his actual costs plus _____ percent incurred up to the time he 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 _____ 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 his 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 his 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 he/she 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 he/she 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 quadruplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

McHenry County _____ of the
(Municipality/Township/County)

ATTEST: State of Illinois, acting by and through its

By _____

_____ Clerk By _____

(Seal)

Title _____

Executed by the ENGINEER:

Gewalt Hamilton Associates, Inc. _____

625 Forest Edge Drive _____

ATTEST: Vernon Hills, Illinois 60061 _____

By _____ By _____

Bruce L. Shrake

Title _____ Title President _____

Approved

Date
Department of Transportation

Regional Engineer

EXHIBIT 1

On Page 2 under the "The LA Agrees", Delete Paragraph 1 and replace it with the following:

1. To pay the ENGINEER within fifteen (15) days following LA's approval of ENGINEER's invoices as compensation for all services performed as stipulated in Paragraphs 1 g, 2, 3, 5 and 6, under "The LA Agrees", on a Cost Plus Fixed Fee basis according to the Schedule of Compensation contained in Exhibits B & C of the Agreement for the successful completion of the services. The total compensation shall not exceed **\$84,625.83**
2. Remove paragraph 3 (on page 3) in its entirety.

On Page 3 under "It is Mutually Agreed"

1. Remove:
Article 3, starting with the words "That if the contract for construction [...]"
2. Add:
 5. ENGINEER shall not commence performance of any services under this Agreement until the LA has issued a written Notice to Proceed.

Exhibit A

Professional Engineering Services – Scope of Work 2015 24-Hour ADT Traffic Counts – Various County Highways Section 15-00444-00-ES McHenry County, Illinois

Project Description

Gewalt Hamilton Associates, Inc. (GHA) will provide engineering services in the form of traffic data collection including:

- 24-hour ADT counts at up to 250 locations on various County Highways (tube counts)
- 48-hour bicycle and pedestrian counts at up to 13 locations using Miovision video data collection units
- 24-Turning Movement / ADT count at the Johnsburg Rd roundabout, the IL Rte 62 at IL Rte 31 bypass ramps, and the Algonquin Road at Pyott Road intersection using Miovision video data collection units.

Scope of Services

Gewalt Hamilton Associates, Inc. (GHA) will provide the following services:

A. 24-Hour Traffic Data Collection

GHA will collect 24-Hour traffic count data at up to 250 locations on various McHenry County Highways. Counts will only be conducted on a typical weekday (i.e. Tuesday, Wednesday or Thursday excluding any holidays) for a 24-hour period commencing at 12:00AM. Successive counts on the same roadway will be conducted on the same day as required by McHenry County Division of Transportation.

Data will be collected mechanically using the International Road Dynamics (IRD) MiniTRS tube counter / classifiers. Data will be collected in 60 minute intervals and include vehicle volume, speed and class. Classification data will be in accordance with the default FHWA class system. Speed data will be collected using the TRS default speed settings of LO on roadways with posted speed limits of 40-mph and lower and HI on roadways with posted speed limits of 45-mph and above.

As a standard practice GHA will collect a GPS “waypoint” at the installation location of each MiniTRS counter. This location data will be stored along with the raw data for retrieval at a later date if necessary or desired by MCDOT.

GHA will collect 24-hour traffic data turning movement counts at 3 locations using Miovision Video Data Collection Units (VCU).

1. Johnsburg Road Roundabout
2. Algonquin Road at IL Rte 31 (Algonquin Bypass) Ramp intersections (2)
3. Algonquin Road at Pyott Road intersection

Data Summary

24-hour tube traffic count data will be downloaded from the MiniTRS counters using the *Road Reporter* software. GHA will provide MCDOT with the following:

- .PRN files (*Road Reporter* format) for each location
- PDF files of the *Road Reporter* summary files for each location, by direction
- Summary of 24-hour ADT data for each location in MCDOT provided MS EXCEL format.
- Shapefile containing GPS “waypoint” for each count location.

24-hour Miovision data will be downloaded from the Miovision web-portal and provided to MCDOT in both standard PDF report format and as a raw file in MS Excel format.

All summarized data will be provided to MCDOT on a CD ROM.

B. 48-hour Data Collection

GHA will collect 48-Hour vehicle and / or pedestrian / bicycle count data at 13 locations on various McHenry County Highways. Counts will only be conducted on a weekend.

Data will be collected using Miovision Video Data Collection Units (VCU). Data will be collected in 60 minute intervals and include both on and off road (crosswalk) bicycles pedestrians and vehicle turning movements as noted below.

As a standard practice GHA will collect a GPS “waypoint” at the installation location of each MiniTRS counter. This location data will be stored along with the raw data for retrieval at a later date if necessary or desired by MCDOT.

Data Summary

All traffic count data will be downloaded from the Miovision web-portal and provided to MCDOT in both standard PDF report format and as a raw file in MS Excel format.

Miovision Locations – path data only unless noted

1. Randall Road and Huntington Drive (vehicles and ped / bike)
2. Ridgefield Trace at Ridgefield Road
3. Walkup Road at Hillside Road (recommend intersection count)
4. Prairie Trail at E Tryon Grove Road
5. Prairie Trail at IL 120 (recommend intersection count at signal to west)
6. Praire Trail at bull Valley Road
7. Prairie Trail at Berkshire Drive (recommend intersection count)
8. Prairie Trail at Rakow Road (ped bridge)
9. HUM Trail at Dunham Road
10. Hebron Trail at Keystone Road
11. Algonquin Road at Haligus Road (recommend intersection count)
12. Ridgefield Road path Crossing (between US 14 and Tarton Drive)
13. Prairie Trail at IL Rte 31 (Main St)

C. Virginia Road Park and Ride Counts

GHA will conduct a 72-hour automated count on each lane of the entrance and exit drives for the Virginia Road Park and Ride facility utilizing NC200 HiStar Passive Magnetic Sensors.

D. General Engineering Assistance Allowances

At the request of MCDOT Staff a forty (40) man-hour allowance to provide additional traffic analyses and potential further study of data collected that may be necessary has been provided at the Senior Engineer hourly rate.

Allowance for up to ten (10) additional Peak Period (6:00-9:00 am and 3:00 – 6:00 pm) weekday turning movement counts at intersections utilizing Miovision Video Data Collection Units.

Schedule

It is our intention to begin work as soon as this agreement is completed. GHA will work closely with the MCDOT staff to keep them apprised of the schedule. It is anticipated that data collection will commence in the northwest quadrant of the County and proceed in a clockwise direction with the southwest quadrant of the County being the last area for data collection. GHA will notify the County each Friday of the anticipated schedule and location of traffic counts for the following week.

We anticipate a schedule of approximately 1.5 months. With a Notice to Proceed anticipated on April 1, 2015 we will be completed with our initial counts no later than May 15, 2015 or as weather permits. Pathway data collection will not commence until after Memorial Day. Exact commencing and ending dates will be determined by weather and construction schedules and coordinated with MCDOT staff.

PAYROLL ESCALATION TABLE ANNIVERSARY RAISES

FIRM NAME
PRIME/SUPPLEMENT

Gewalt Hamilton Associates

DATE 03/06/15
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 4/1/2015
RAISE DATE ANNIVERSARY

OVERHEAD RATE 164.00%
COMPLEXITY FACTOR 0
% OF RAISE 0.00%

ESCALATION PER YEAR

DETERMINE THE MID POINT OF THE AGREEMENT

6

CALCULATE THE ESCALATION FACTOR TO THE MIDPOINT OF THE CONTRACT

0.00%

The total escalation for this project would be: **0.00%**



Exhibit B - Tube Count Project Costs

2015 24-Hour ADT Traffic Counts

McHenry County Division of Transportation

**Cost Estimate of
Consultant Services
(CPFF)**

Firm Gewalt Hamilton Associates, Inc.
 Route Various
 Section 15-00444-00-ES
 County McHenry
 Job No. _____
 PTB & Item _____

Date 03/06/15
 Overhead Rate 164.00%
 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
3									
Coordination and Supervision	0.02	0.96	1.57		0.37			2.90	1.33%
Field Counts - Mechanical	2.2	42.43	69.58		16.24			128.25	58.65%
Count Compilation	0.35	11.06	18.14		4.23			33.43	15.29%
Data Management	0.35	11.70	19.19		4.48			35.37	16.18%
QA/QC	0.05	2.40	3.94		0.92			7.26	3.32%
Mileage				10.00	1.45			11.45	5.24%
Per Count Location Cost	2.97	68.55	112.42	10.00	27.69	0.00	0.00	218.66	100.00%

Locations = 250 x per location \$218.66 = \$54,664.00 **Count Project Costs**

