

**Engineering Service Agreement for
Traffic Signal Modernization and
Interconnect to Lake County PASSAGE Network**

- 1. IL Rte 43 (Waukegan Road) from Casimir Pulaski Drive to Normal Drive South
Section No. 12-00999-28-TL**

- 2. IL Rte 137 (Sheridan Road) from Grand Avenue to Wadsworth Road
Section No. 12-00999-29-TL**

- 3. Sunset Ave/Golf Rd/Greenwood Ave, Glen Flora Ave, Jackson St and 10th St
Section No. 12-00999-30-TL**

Prepared for:




**Lake County Division of Transportation
600 West Winchester Road
Libertyville, IL 60048-1381**

Submitted by:



**850 Forest Edge Drive
Vernon Hills, IL 60061
847-478-9700**

March 28, 2012

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 Gewalt Hamilton Associates, Inc.
Township				Address 850 Forest Edge Drive
County Lake County Division of Transportation		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Vernon Hills
Section No. 12-00999-28-TL No. 12-00999-29-TL No. 12-00999-30-TL				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 2012 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 Traffic Signal Interconnect Projects – 1. IL Rte 43 (Waukegan Rd) in Waukegan; 2. IL Rte 137 (Sheridan Rd) in Waukegan and Zion; and 3. Various Routes in Waukegan and North Chicago

Route Various Length 10.77 Mi. 56,870 FT (Structure No. N/A)

Termini 1. IL Rte 43 (Waukegan Rd) from Casimir Pulaski Dr to Normal Dr South in Waukegan;
2. IL Rte 137 (Sheridan Rd) from Grand Ave to Wadsworth Rd in Waukegan and Zion;
3. Sunset Ave/Golf Rd/Greenwood Ave from Lewis Ave to Sheridan Rd, Glen Flora Ave from McAree Rd to Sheridan Rd, Jackson St from Washington St to Glen Rock Ave, and 10th St from Lewis Ave to Sheridan Rd in Waukegan and North Chicago

Description: Engineering design services to prepare engineering plans, specifications and bidding documents for installation of fiber optic interconnect between 30 signalized intersections and modernization of 9 traffic signals

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
 - 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	
Under \$50,000	_____	(see note)
	_____	%
	_____	%
	_____	%

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 ___ 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 \$506,781.23

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 14.5 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 14.5 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.
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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:

ATTEST: _____ County of Lake _____ of the

 (Municipality/Township/County)
 State of Illinois, acting by and through its
 County Board
 By _____
 _____ Clerk
 Lake County
 (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:

ATTEST: _____ Gewalt Hamilton Associates, Inc.

 Engineering Firm
 850 Forest Edge Drive
 Street Address
 Vernon Hills, Illinois
 City, State
 By _____
 Title _____

**Engineering Service Agreement
Traffic Signal Modernization and Interconnect to Lake County PASSAGE Network**

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Section No. 1200999-30-TL**

**Lake County Division of Transportation
Lake County, Illinois**

I. Project Description

In accordance with the Lake County Division of Transportation (LCDOT) CMAP FY 2012-2016 Congestion Mitigation and Air Quality (CMAQ) Project Application form, the work scope for the proposed improvements is as follows:

Project 1. IL Rte 43 (Waukegan Road) from Casimir Pulaski Drive to Normal Drive South

The project is to interconnect three (3) existing traffic signals along IL Route 43 (Waukegan Road) from Casimir Pulaski Drive (County Rte A29) / McGaw Road to Norman Drive South. The project is located in the City of Waukegan, Lake County, Illinois.

In addition to the fiber optic interconnect that would be added to the Lake County PASSAGE Network, three (3) existing intersections will be modernized. They are as follows: IL Route 43 (Waukegan Road) at Casimir Pulaski Drive (County Rte A29) / McGaw Road, Greenleaf Avenue at IL Route 120 (Belvidere Road) Westbound Ramps and Greenleaf Avenue at IL Route 120 Eastbound Ramps. Six (6) additional existing intersections shall be modified to be brought up to Lake County CENTRAC ITS standards. These are as follows: Greenleaf Avenue/Fountain Square Blvd. at Lakehurst Road/North Point Blvd., IL Route 43 (Waukegan Road) at North Point Blvd., IL Route 43 (Waukegan Road) at Fountain Square Place, IL Route 43 (Waukegan Road) at Lakehurst Road, IL Route 43 (Waukegan Road) at Lakeside Drive and IL Route 43 (Waukegan Road) at Norman Drive South.

There currently are existing fiber optic communication systems on Greenleaf Avenue (IDOT ECON 19) from IL Route 43 (Waukegan Road) Westbound Ramps to Lakehurst Road/North Point Blvd. and IL Route 43 (Waukegan Road) (IDOT ECON 18) From North Point Blvd. to Casimir Pulaski Drive (County Rte A29). This new interconnect system would connect to the IL Route 43 (Waukegan Road) (IDOT ECON 22) from Norman Drive South to Atkinson Avenue and IL Route 137 (Buckley Road) from St. Mary's Road to IL Route 43 (Waukegan Road) system that is already on the Lake County CENTRACS ITS system. The existing interconnected intersections will need to be upgraded with Lake County PASSAGE ITS standards (NTCIP) and software upgrades.

The traffic signal engineering design services include the following intersections and their necessary improvements as outlined by the above work scope.

1. Greenleaf Avenue at IL Route 120 (Belvidere Road) Westbound Ramps – Full Modernization
2. Greenleaf Avenue at IL Route 120 (Belvidere Road) Eastbound Ramps – Full Modernization
3. Greenleaf Avenue/Fountain Square Blvd. at Lakehurst Road/North Point Blvd. – NTCIP Upgrades
4. IL Rte 43 (Waukegan Road) at North Point Blvd. – NTCIP Upgrades
5. IL Rte 43 (Waukegan Road) at Fountain Square Place- NTCIP Upgrades
6. IL Rte 43 (Waukegan Road) at Lakehurst Road – NTCIP Upgrades
7. IL Rte 43 (Waukegan Road) at Casimir Pulaski Drive (County Rte A29) – Full Modernization
8. IL Rte 43 (Waukegan Road) at Lakeside Drive – NTCIP Upgrades
9. IL Rte 43 (Waukegan Road) at Norman Drive South – NTCIP Upgrades

Project 2. IL Rte 137 (Sheridan Road) from Grand Avenue to Wadsworth Road

The project is to interconnect seven (7) existing traffic signals along IL Route 137 (Sheridan Road) from Grand Avenue to Wadsworth Road (County Rte A9). The project is located in the City of Waukegan and the City of Zion, both in Lake County, Illinois.

In addition to the fiber optic interconnect that would be added to the Lake County PASSAGE Network, four (4) existing intersections will be completely modernized. They are as follows: Sheridan Road at Glen Flora Avenue, IL Rte 137 (Sheridan Road) at Mirafloras Avenue, IL Rte 137 (Sheridan Road) at Yorkhouse Road (County Rte A15) and IL Rte 137 (Sheridan Road) at Beach Road (County Rte A13). Lastly, three (3) additional existing intersections shall be modified to be brought up to Lake County PASSAGE ITS standards. They are as follows: Sheridan Road at Grand Avenue, IL Rte 137 (Sheridan Road) at Greenwood Avenue and IL Rte 137 (Sheridan Road) at Wadsworth Road (County Rte A9).

There currently is an existing fiber optic communication system of nine (9) intersections on IL Rte 137 (Sheridan Road) from Wadsworth Road (County Rte A9) to IL Rte 173 (21st Street) that will be upgraded to Lake County PASSAGE ITS standards (NTCIP) with software upgrades.

The traffic signal engineering design services include the following IL Rte 137 (Sheridan Road) intersections and their necessary improvements as outlined by the above work scope:

1. Sheridan Road at Grand Avenue – NTCIP Upgrades
2. Sheridan Road at Glen Flora Avenue – Full Modernization
3. IL Rte 137 (Sheridan Road) at Greenwood Avenue – NTCIP Upgrades
4. IL Rte 137 (Sheridan Road) at Mirafloras Avenue – Full Modernization
5. IL Rte 137 (Sheridan Road) at Yorkhouse Road (County Rte A15) – Full Modernization
6. IL Rte 137 (Sheridan Road) at Beach Road (County Rte A13) – Full Modernization
7. IL Rte 137 (Sheridan Road) at Wadsworth Road (County Rte A9) – NTCIP Upgrades
8. IL Rte 137 (Sheridan Road) at 34th Street – NTCIP Upgrades
9. IL Rte 137 (Sheridan Road) at 33rd Street – NTCIP Upgrades

10. IL Rte 137 (Sheridan Road) at 31st Street – NTCIP Upgrades
11. IL Rte 137 (Sheridan Road) at 29th Street – NTCIP Upgrades
12. IL Rte 137 (Sheridan Road) at 27th Street – NTCIP Upgrades
13. IL Rte 137 (Sheridan Road) at Shiloh Boulevard – NTCIP Upgrades
14. IL Rte 137 (Sheridan Road) at 23rd Street – NTCIP Upgrades
15. IL Rte 137 (Sheridan Road) at IL Rte 173 (21st Street) – NTCIP Upgrades

Project 3. Sunset Ave/Golf Rd/Greenwood Ave, Glen Flora Ave, Jackson St and 10th St

The project is to interconnect four (4) roadway corridors to be added to the Lake County PASSAGE Network. The roadways are as follows: Sunset Avenue/Golf Road/Greenwood Avenue (County Rte A19) from Lewis Avenue to IL Route 137 (Sheridan Road), Glen Flora Avenue from McAree Road to IL Route 137 (Sheridan Road), Jackson Street from Washington Street to Glen Rock Avenue and 10th Street from Lewis Avenue to IL Route 137 (Sheridan Road). The project is located in the City of Waukegan and the City of North Chicago, both in Lake County, Illinois.

In addition to the fiber optic interconnect that would be added to the Lake County PASSAGE Network, two (2) existing intersections will be modernized. They are as follows: Glen Flora Avenue at McAree Road and Glen Flora at Jackson Street. Five (5) additional existing intersections shall be modified to be brought up to Lake County PASSAGE ITS standards. They are as follows: Golf Road at Yeoman Street, Golf Road at Jackson Street, Jackson Street at Glen Rock Avenue, 10th Street at Jackson Street and 10th Street and McAlister Avenue.

The traffic signal engineering design services include the following intersections and their necessary improvements as outlined by the above work scope.

1. Sunset Avenue at Lewis Avenue – Cable Splicing
2. Golf Road at Yeoman Street – NTCIP Upgrades
3. Golf Road at Jackson Street – NTCIP Upgrades
4. Greenwood Avenue at IL Route 137 (Sheridan Road) NTCIP Upgrades
5. Glen Flora Avenue at McAree Road – Full Modernization
6. Glen Flora Avenue at Lewis Avenue – Cable Splicing
7. Glen Flora Avenue at Jackson Street – Full Modernization
8. Glen Flora Avenue at IL Route 137 (Sheridan Road) NTCIP Upgrades
9. Jackson Street at Glen Flora Avenue – NTCIP Upgrades
10. Jackson Street at Washington Street – NTCIP Upgrades
11. 10th Street at Lewis Avenue – Cable Splicing
12. 10th Street at Jackson Street – NTCIP Upgrades
13. 10th Street at McAllister Avenue – NTCIP Upgrades
14. 10th Street at IL Route 137 (Sheridan Road) – NTCIP Upgrades

In accordance with the CMAP FY 2012-2016 CMAQ Project Application form, it is understood that the local share of this project will be funded by Lake County Matching Tax Fund.

II. Scope of Services

Upon authorization from Lake County, Gewalt Hamilton Associates, Inc. (GHA) will provide the following services:

A. Project Initiation and Coordination

GHA will coordinate the design of this project with the Illinois Department of Transportation (IDOT) Bureau of Local Roads and Streets (BLRS), local agencies (City of Waukegan, City of North Chicago and City of Zion) and public utility companies. GHA will present our findings to LCDOT staff at various coordination meetings. The following coordination is anticipated during the design of this project.

1. *Coordination with LCDOT* – Representatives from GHA will attend an initial kick-off meeting with LCDOT. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
2. *Coordination with IDOT* – Representatives from GHA will meet with IDOT BLRS and LCDOT staff to discuss the traffic signal modernizations and modifications and all approval requirements. GHA will provide minutes of the meeting with a record of discussion and circulate to all participants.
3. *Coordination with Local Agencies* – Representatives from GHA will meet with and coordinate the proposed improvements with the various communities that adjoin this project (Cities of Waukegan, North Chicago, and Zion). GHA will provide summaries of the meetings to LCDOT.
4. *Coordination with Utility Agencies* – GHA will initiate a JULIE Design Stage Locate request to ensure all utilities within the limits of the project are accounted for and contacted.

GHA will provide existing conditions drawings to and request atlases and utility information from various agencies/companies that have existing utilities within the project corridors Right-of-Way.

GHA will provide all utility companies with copies of Pre-Final plans for review.

If necessary, GHA will coordinate field meetings with representatives of the various utilities to evaluate and review potential conflicts.

GHA will provide utility companies with copies of Final engineering drawings identifying conflicts and required relocations.

5. GHA will request available historical data and information (i.e. existing traffic signal plans, existing plats of highways and easements, roadway engineering plans, etc.) from the above mentioned agencies during the coordination process.

B. Existing Conditions, Topographic Survey and Base Plan Preparation

GHA will prepare a limited “hard improvements” existing conditions topographic survey and ROW analysis of the project corridor. Details will be limited to sidewalks, curb and gutter, pavement markings and traffic signal equipment. Underground and overhead utilities plainly visible will be located, but no underground information will be collected. This limited topographic survey will serve as the base for the traffic signal modification plans. At intersections where full modernization of signals is proposed additional sidewalk and grading information will be collected.

Topographic and ROW survey limits (ROW to ROW) will encompass the following:

- Project 1. – approximately 1.2 miles (6,340 feet) of roadway along IL Route 43 (Waukegan Road) from Casimir Pulaski Drive (County Rte A29) to Norman Drive South and North Point Blvd from Greenleaf Avenue/Fountain Square and IL Rte 43 (Waukegan Road). GHA has previously prepared plans for portions of the corridor limits and can re-use the existing condition information from those recent projects.
- Project 2. – approximately 4.7 miles (24,820 feet) of roadway along IL Route 137 (Sheridan Road) from Grand Avenue to Wadsworth Road (County Rte A9).
- Project 3. – approximately 1.4 miles (7,400 feet) of roadway along Sunset Avenue/Golf Road/Greenwood Avenue (County Rte 19) from Lewis Avenue to IL Rte 137 (Sheridan Road), 1.7 miles (8,980 feet) of roadway along Glen Flora Avenue from McAree Road to IL Route 137 (Sheridan Road), 0.23 miles (1,220 feet) of roadway along Jackson Street from Washington Street to Glen Rock Avenue and 1.14 miles (6,020 feet) of roadway along 10th Street from Lewis Avenue to IL Route 137 (Sheridan Road).

Additionally, GHA will conduct an on-site field review to verify the existing traffic signal information and prepare a photographic inventory of the project limits for each intersection and interconnect route. The photo log will be prepared for use during the design process and as verification of existing improvements during construction.

1. The project limits for individual signalized intersections will extend 300 feet beyond the existing stop bars and 100 feet beyond the stop bar leg of the intersecting cross streets. If the respective signal equipment extends beyond the above noted limits, the limits will be extended to encompass all traffic signal equipment.
2. Identifications, dimensions, and necessary planimetric data to accurately delineate existing improvements within the Right-of-Way.
3. Our topographic information will be based on current IDOT and City of Waukegan stationing that exists on the project routes.
4. Identify and locate on-street parking locations, left turn restrictions, and other geometric conditions that may impact the progression of through traffic on the project routes.
5. Please note that our scope does not include excavating utilities to determine their exact location and elevation in the field. If LCDOT should desire this level of detail in the design phase, we can secure the services of a contractor. Such work, and our management of that work, would be considered an additional service.
6. Incorporate any record utility data provided to us into the survey at the time of reducing the field data.
7. Any additional improvements requested by the Cities of Waukegan, North Chicago, and Zion will be presented to LCDOT in a coordination meeting to discuss the desired changes by both governing bodies. This information will be used in the analysis of each intersection. Funding for significant changes requiring modifications outside the existing curb lines may not qualify for CMAQ funding and would require local funding.

C. Environmental

- Project 1. – GHA will complete the Environmental Survey Request Form (ESRF), which is anticipated to be for Special Waste screening only, to initiate the Preliminary Environmental Site Assessment (PESA) for the project corridor. We have received concurrence that IDOT will complete the screening for the entire corridor including the local portions of North Point Boulevard.

- Project 2. – GHA will complete the Environmental Survey Request Form (ESRF), which is anticipated to be for Special Waste screening only, to initiate the Preliminary Environmental Site Assessment (PESA) for the project corridor. It has been determined that IDOT will undertake this effort for the IL 137 corridor including those portions of the local jurisdiction sections of Sheridan Road that have commercial development (approximately 1,000 feet south of Greenwood and approximately 1,000 feet north of Grand Avenue). However, LCDOT as the Local Agency will be responsible for the remaining portion of the local jurisdiction Sheridan Road corridor. We have included an allowance to engage a qualified environmental engineering consultant to prepare a Local Agency PESA as well as to complete the Preliminary Site Investigation (PSI) on a per-parcel/location basis depending on the PESA results and to complete the necessary certification forms to meet the Clean Construction and Demolition Debris (CCDD) requirements.
- Project 3. – GHA will engage a qualified environmental engineering consultant to prepare a Local Agency PESA as well as to complete the Preliminary Site Investigation (PSI) on a per-parcel/location basis depending on the PSA results and to complete the necessary certification forms to meet the Clean Construction and Demolition Debris (CCDD).

It is anticipated by the County that no additional right-of-way is needed for these projects. If after the existing condition plans and right-of-way determination is complete and it is determined that easements and/or right-of-way is needed to accommodate these improvements, the State will require Biological and Cultural clearances as part of the ESR. Coordinating those clearances are not part of this contract and would be considered as an Additional Service.

GHA will complete the EcoCat documentation for coordinating clearance for Threatened and Endangered Species and initial wetland impact review.

Pending PESA results, GHA will engage a qualified environmental engineering consultant to complete the necessary certification forms to meet the Clean Construction and Demolition Debris (CCDD) requirements.

Allowances for PESA and PSI/CCDD services are included in our manhour estimates.

D. Pre-Final Engineering Plans, Specifications and Estimate (PS&E)

The Pre-Final contract Plans, Specifications and Estimate (PS&E) for the Modernization and Interconnect improvement projects will be prepared in accordance with the IDOT BLRS standards for an IDOT Letting. The contract documents are expected to include the following:

1. Title sheet, summary of quantities, and general notes and details.
2. Summary of quantities will be prepared and provided in separate schedules for pay items in participating and non-participating Federal allocations and arranged in columns by funding source.
3. Temporary traffic signal plans (for full modernization intersections only) and permanent traffic signal plans with emergency vehicle preemption if requested by the respective jurisdictional authorities.
4. Interconnect plan and interconnect schematic.

5. LCDOT will provide Fiber Splicing Diagrams to be prepared by their own “on call” consultant. Upon receipt of the Fiber Splicing Diagrams GHA will prepare the Cabinet Detail plans for each intersection.
6. Detailed intersection plans for complete modernization intersections, including pedestrian crosswalks and access routes in conformance with ADA guidelines and in compliance with IDOT and LCDOT standards.
7. Update of intersection pavement markings for full-modernization intersections to current LCDOT standards.
8. We anticipate the “overall” contract plan set to contain sheets as listed in Appendix I.
9. Once we have completed the pre-final contract plans, GHA will prepare detailed special provisions, supplementary LCDOT specifications, and the IDOT District I Traffic Signal Special Provisions for incorporation into the proposed specification booklet.
10. Upon completion of the quantity calculations, GHA will prepare and engineer’s estimate of cost, breakdown of lump sum items and an estimate of time.
11. Plans are to be prepared on 22” x 34” LCDOT format plan sheets. Plans will be completed in English units and will be prepared using Microstation (Version V8), which is in conformance with LCDOT and IDOT requirements.

E. Final Engineering Plans, Specifications and Estimates

After the comments have been received by all agencies for the Pre-Final submittals, GHA will finalize the contract documents and re-submit to the appropriate agencies for final approval with a detailed disposition of all comments received.

F. Additional Services Not Included

GHA would be pleased to provide a proposal to LCDOT for work outside the limits of this contract, which could include:

1. Boundary surveys of individual parcels
2. Development of detailed Alignment, Ties and Benchmark Sheets
3. Completion of a Project Development Report (PDR)
4. Preparation of an ALTA/ACSM Land Title Survey
5. Right-of-way and/or easement acquisition
6. Plat preparation including any easements or dedication documents
7. Traffic data collection and analyses
8. Intersection Design Studies (IDS)
9. Structural design
10. Tree surveys
11. Wetland delineation or mitigation
12. Floodplain modeling and simulation analysis
13. Hydraulic/drainage studies or culvert analysis
14. Meetings or hearings outside of the Scope of Services described above
15. Permit fees or review fees
16. Obtaining additional topographic information beyond the scope noted above

III. Staff and Schedule

The staff that we will assign to the projects has extensive experience in traffic signal design and contract document development. We propose to use the following primary staff on these projects:

Project Manager	Daniel P. Brinkman, P.E., PTOE
Project Engineer	Kevin L. Belgrave, P.E., PTOE
Senior Engineering Technician	James R. Deferville
Lead CAD Technician	Zach Wallsten
QA\QC	Todd P. Gordon, P.E.

It is our intention to commence field work upon receipt of authorization to proceed from the County. Design work as described above in this agreement is expected to be completed within 6-9 months and we will make every effort to complete the Final Engineering contract documents available for IDOT Letting in the spring of 2013, subject to agency review times, necessary agency approvals, and funding opportunities.

IV. Compensation for Services

Based upon the scope of services described above, GHA proposes a fee as shown in the manhour calculations (Exhibit A) at an amount not to exceed \$506,781.23.

V. General Conditions

The delineated services provided by Gewalt Hamilton Associates, Inc., (GHA) under this Agreement will be performed as reasonably required in accordance with the generally accepted standards for civil engineering and surveying services as reflected in the contract for this project at the time when and the place where the services are performed.

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or GHA. GHA's services under this Agreement are being performed solely for the Client's benefit, and no other party or entity shall have any claim against GHA because of this Agreement or the performance or nonperformance of services hereunder. In no event shall GHA be liable for any loss of profit or any consequential damages.

GHA shall not have control of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for job site safety measures. Such control is the sole responsibility of the Client's contractor.

The Client and GHA agree that all disputes between them arising out of or relating to this Agreement or the Project shall be submitted to nonbinding mediation in Chicago, Illinois unless the parties mutually agree otherwise.

This Agreement, including all subparts and *Attachment A*, which is attached hereto and incorporated herein as the General Provisions of this Agreement, constitute the entire integrated agreement between the parties which may not be modified without all parties consenting thereto in writing.

Thank you for your consideration. We look forward to the opportunity to working with and providing our services to the Lake County Division of Transportation.

Exhibit A - Project 1

**Phase I and Phase II Engineering Services
Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
Traffic Signal Interconnect IL Rte 43 (Waukegan Road)
Casimir Pulaski to Normal Drive South in Waukegan, Illinois**

Section No. 12-00999-28-TL

**Lake County Division of Transportation
Lake County, Illinois**

Route: IL RTE 43 (Waukegan Road) North Point Blvd to Norman Drive South
 Local Agency: LCDOT
 (Municipality/Township/County)
 Section: 12-00999-28-TL
 Project: N/A
 Job No.: N/A

*Firm's approved rates on file with IDOT'S Bureau of Accounting and Auditing:			
Overhead Rate		165.00 %	
Profit Rate		14.5 %	
Complexity Factor	0	0.035	0.07
Project Duration	270 Days		

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs	Overhead*	Services by Others	In House Direct Costs	Profit	Total
Project Initiation and Coordination									
	SENIOR ENG	32	\$48.11	\$ 1,539.52	\$ 2,540.21		\$0.00	\$ 591.56	\$ 4,671.29
	PROFESSIONAL ENG	30	\$31.14	\$ 934.20	\$ 1,541.43		\$0.00	\$ 358.97	\$ 2,834.60
	STAFF ENG	32	\$26.40	\$ 844.80	\$ 1,393.92		\$0.00	\$ 324.61	\$ 2,563.33
	SR ENG TECH	32	\$27.82	\$ 890.24	\$ 1,468.90		\$0.00	\$ 342.07	\$ 2,701.21
	CLERICAL	8	\$22.20	\$ 177.60	\$ 293.04		\$0.00	\$ 68.24	\$ 538.88
Existing Condition, Topographic Survey and Base Plan Preparation									
	SENIOR ENG	24	\$48.11	\$ 1,154.64	\$ 1,905.16		\$0.00	\$ 443.67	\$ 3,503.47
	PROF LAND SURVEYOR	16	\$35.83	\$ 573.28	\$ 945.91		\$0.00	\$ 220.28	\$ 1,739.47
	SR ENG TECH	160	\$27.82	\$ 4,451.20	\$ 7,344.48		\$0.00	\$ 1,710.37	\$ 13,506.05
	ENG TECH II	100	\$20.25	\$ 2,025.00	\$ 3,341.25		\$0.00	\$ 778.11	\$ 6,144.36
	ENG TECH I	100	\$13.36	\$ 1,336.00	\$ 2,204.40		\$0.00	\$ 513.36	\$ 4,053.76
Environmental Studies									
	SENIOR ENG	10	\$48.11	\$ 481.10	\$ 793.82		\$0.00	\$ 184.86	\$ 1,459.78
	PROJECT CONSULTANT	24	\$31.15	\$ 747.60	\$ 1,233.54		\$0.00	\$ 287.27	\$ 2,268.41
	ENG TECH II	24	\$20.25	\$ 486.00	\$ 801.90		\$0.00	\$ 186.75	\$ 1,474.65
	PSI / CCDD (allowance)					\$ 11,500.00			\$ 11,500.00
Pre Final Engineering									
	PRINCIPAL ENG	16	\$57.19	\$ 915.04	\$ 1,509.82		\$0.00	\$ 351.60	\$ 2,776.46
	SENIOR ENG	60	\$48.11	\$ 2,886.60	\$ 4,762.89		\$0.00	\$ 1,109.18	\$ 8,758.67
	PROFESSIONAL ENG	60	\$31.14	\$ 1,868.40	\$ 3,082.86		\$0.00	\$ 717.93	\$ 5,669.19
	PROF LAND SURVEYOR	8	\$35.83	\$ 286.64	\$ 472.96		\$0.00	\$ 110.14	\$ 869.74
	SR ENG TECH	120	\$27.82	\$ 3,338.40	\$ 5,508.36		\$0.00	\$ 1,282.78	\$ 10,129.54
	ENG TECH II	140	\$20.25	\$ 2,835.00	\$ 4,677.75		\$0.00	\$ 1,089.35	\$ 8,602.10
	CLERICAL	24	\$22.20	\$ 532.80	\$ 879.12		\$0.00	\$ 204.73	\$ 1,616.65
									\$ -
Final Plans Specifications and Estimate									
	PRINCIPAL ENG	12	\$57.19	\$ 686.28	\$ 1,132.36		\$0.00	\$ 263.70	\$ 2,082.35
	SENIOR ENG	30	\$48.11	\$ 1,443.30	\$ 2,381.45		\$0.00	\$ 554.59	\$ 4,379.33
	PROFESSIONAL ENG	32	\$31.14	\$ 996.48	\$ 1,644.19		\$0.00	\$ 382.90	\$ 3,023.57
	SR ENG TECH	40	\$27.82	\$ 1,112.80	\$ 1,836.12		\$0.00	\$ 427.59	\$ 3,376.51
	ENG TECH II	60	\$20.25	\$ 1,215.00	\$ 2,004.75		\$0.00	\$ 466.86	\$ 3,686.61
	CLERICAL	40	\$22.20	\$ 888.00	\$ 1,465.20		\$0.00	\$ 341.21	\$ 2,694.41
Subconsultant Management Fee (5%)									
						\$ 11,500.00			\$ 575.00
In House Direct Costs (See Attached Estimate)									
							\$3,833.00		\$ 3,833.00
Totals		1234		\$ 34,645.92	\$ 57,165.77	\$ 11,500.00	\$3,833.00	\$ 13,312.69	\$ 121,032.38

Exhibit A - Project 2

**Phase I and Phase II Engineering Services
Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
Traffic Signal Interconnect IL Rte 137 (Sheridan Road)
Grand Avenue to Wadsworth Road in Waukegan and Zion, Illinois**

Section No. 12-00999-29-TL

**Lake County Division of Transportation
Lake County, Illinois**

Route: IL RTE 137 (Sheridan Road) Wadsworth Road to Grand Avenue
 Local Agency: LCDOT
 (Municipality/Township/County)
 Section: 12-00999-29-TL
 Project: N/A
 Job No.: N/A

*Firm's approved rates on file with IDOT'S Bureau of Accounting and Auditing:			
Overhead Rate		165.00 %	
Profit Rate		14.5 %	
Complexity Factor	0	0.035	0.07
Project Duration	270 Days		

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs	Overhead*	Services by Others	In House Direct Costs	Profit	Total
Project Initiation and Coordination									
	SENIOR ENG	40	\$48.11	\$ 1,924.40	\$ 3,175.26		\$0.00	\$ 739.45	\$ 5,839.11
	PROFESSIONAL ENG	32	\$31.14	\$ 996.48	\$ 1,644.19		\$0.00	\$ 382.90	\$ 3,023.57
	STAFF ENG	40	\$26.40	\$ 1,056.00	\$ 1,742.40		\$0.00	\$ 405.77	\$ 3,204.17
	SR ENG TECH	40	\$27.82	\$ 1,112.80	\$ 1,836.12		\$0.00	\$ 427.59	\$ 3,376.51
	CLERICAL	12	\$22.20	\$ 266.40	\$ 439.56		\$0.00	\$ 102.36	\$ 808.32
Existing Condition, Topographic Survey and Base Plan Preparation									
	SENIOR ENG	32	\$48.11	\$ 1,539.52	\$ 2,540.21		\$0.00	\$ 591.56	\$ 4,671.29
	PROF LAND SURVEYOR	48	\$35.83	\$ 1,719.84	\$ 2,837.74		\$0.00	\$ 660.85	\$ 5,218.42
	SR ENG TECH	420	\$27.82	\$ 11,684.40	\$ 19,279.26		\$0.00	\$ 4,489.73	\$ 35,453.39
	ENG TECH II	360	\$20.25	\$ 7,290.00	\$ 12,028.50		\$0.00	\$ 2,801.18	\$ 22,119.68
	ENG TECH I	80	\$13.36	\$ 1,068.80	\$ 1,763.52		\$0.00	\$ 410.69	\$ 3,243.01
Environmental Studies									
	SENIOR ENG	8	\$48.11	\$ 384.88	\$ 635.05		\$0.00	\$ 147.89	\$ 1,167.82
	PROJECT CONSULTANT	20	\$31.15	\$ 623.00	\$ 1,027.95		\$0.00	\$ 239.39	\$ 1,890.34
	ENG TECH II	20	\$20.25	\$ 405.00	\$ 668.25		\$0.00	\$ 155.62	\$ 1,228.87
	Local Route PESA and PSI/CCDD (allowance)					\$ 13,500.00			\$ 13,500.00
Pre Final Engineering									
	PRINCIPAL ENG	24	\$57.19	\$ 1,372.56	\$ 2,264.72		\$0.00	\$ 527.41	\$ 4,164.69
	SENIOR ENG	80	\$48.11	\$ 3,848.80	\$ 6,350.52		\$0.00	\$ 1,478.90	\$ 11,678.22
	PROFESSIONAL ENG	80	\$31.14	\$ 2,491.20	\$ 4,110.48		\$0.00	\$ 957.24	\$ 7,558.92
	PROF LAND SURVEYOR	16	\$35.83	\$ 573.28	\$ 945.91		\$0.00	\$ 220.28	\$ 1,739.47
	SR ENG TECH	240	\$27.82	\$ 6,676.80	\$ 11,016.72		\$0.00	\$ 2,565.56	\$ 20,259.08
	ENG TECH II	292	\$20.25	\$ 5,913.00	\$ 9,756.45		\$0.00	\$ 2,272.07	\$ 17,941.52
	CLERICAL	32	\$22.20	\$ 710.40	\$ 1,172.16		\$0.00	\$ 272.97	\$ 2,155.53
									\$ -
Final Plans Specifications and Estimate									
	PRINCIPAL ENG	16	\$57.19	\$ 915.04	\$ 1,509.82		\$0.00	\$ 351.60	\$ 2,776.46
	SENIOR ENG	48	\$48.11	\$ 2,309.28	\$ 3,810.31		\$0.00	\$ 887.34	\$ 7,006.93
	PROFESSIONAL ENG	48	\$31.14	\$ 1,494.72	\$ 2,466.29		\$0.00	\$ 574.35	\$ 4,535.35
	SR ENG TECH	100	\$27.82	\$ 2,782.00	\$ 4,590.30		\$0.00	\$ 1,068.98	\$ 8,441.28
	ENG TECH II	120	\$20.25	\$ 2,430.00	\$ 4,009.50		\$0.00	\$ 933.73	\$ 7,373.23
	CLERICAL	40	\$22.20	\$ 888.00	\$ 1,465.20		\$0.00	\$ 341.21	\$ 2,694.41
Subconsultant Management Fee (5%)									
						\$ 13,500.00			\$ 675.00
In House Direct Costs (See Attached Estimate)									
							\$3,833.00		\$ 3,833.00
Totals		2288		\$ 62,476.60	\$ 103,086.39	\$ 13,500.00	\$3,833.00	\$ 24,006.63	\$ 207,577.62

Exhibit A - Project Summary
Phase I and Phase II Engineering Services
Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
Interconnect to Lake County PASSAGE Network
Lake County Division of Transportation
Lake County, Illinois

Route: Various Routes in Waukegan and North Chicago
 Local Agency: LCDOT
 (Municipality/Township/County)
 Section: TBD
 Project: N/A
 Job No.: N/A

*Firm's approved rates on file with IDOT'S Bureau of Accounting and Auditing:			
Overhead Rate		165.00 %	
Profit Rate		14.5 %	
Complexity Factor	0	0.035	0.07
Project Duration	270 Days		

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs	Overhead*	Services by Others	In House Direct Costs	Profit	Total
Project Initiation and Coordination									
	SENIOR ENG	104	\$48.11	\$ 5,003.44	\$ 8,255.68		\$0.00	\$ 1,922.57	\$ 15,181.69
	PROFESSIONAL ENG	92	\$31.14	\$ 2,864.88	\$ 4,727.05		\$0.00	\$ 1,100.83	\$ 8,692.76
	STAFF ENG	112	\$26.40	\$ 2,956.80	\$ 4,878.72		\$0.00	\$ 1,136.15	\$ 8,971.67
	SR ENG TECH	104	\$27.82	\$ 2,893.28	\$ 4,773.91		\$0.00	\$ 1,111.74	\$ 8,778.93
	CLERICAL	32	\$22.20	\$ 710.40	\$ 1,172.16		\$0.00	\$ 272.97	\$ 2,155.53
Existing Condition, Topographic Survey and Base Plan Preparation									
	SENIOR ENG	80	\$48.11	\$ 3,848.80	\$ 6,350.52		\$0.00	\$ 1,478.90	\$ 11,678.22
	PROF LAND SURVEYOR	112	\$35.83	\$ 4,012.96	\$ 6,621.38		\$0.00	\$ 1,541.98	\$ 12,176.32
	PROFESSIONAL ENG	0	\$31.14	\$ -	\$ -		\$0.00	\$ -	\$ -
	STAFF ENG	0	\$26.40	\$ -	\$ -		\$0.00	\$ -	\$ -
	SR ENG TECH	924	\$27.82	\$ 25,705.68	\$ 42,414.37		\$0.00	\$ 9,877.41	\$ 77,997.46
	ENG TECH II	700	\$20.25	\$ 14,175.00	\$ 23,388.75		\$0.00	\$ 5,446.74	\$ 43,010.49
	ENG TECH I	320	\$13.36	\$ 4,275.20	\$ 7,054.08		\$0.00	\$ 1,642.75	\$ 12,972.03
Environmental Studies									
	SENIOR ENG	26	\$48.11	\$ 1,250.86	\$ 2,063.92		\$0.00	\$ 480.64	\$ 3,795.42
	PROJECT CONSULTANT	52	\$31.15	\$ 1,619.80	\$ 2,672.67		\$0.00	\$ 622.41	\$ 4,914.88
	ENG TECH II	44	\$20.25	\$ 891.00	\$ 1,470.15		\$0.00	\$ 342.37	\$ 2,703.52
	Subconsultant-Local Route PESA and PSI / CCDD (allowance)					\$ 54,500.00			\$ 54,500.00
Pre Final Engineering									
	PRINCIPAL ENG	56	\$57.19	\$ 3,202.64	\$ 5,284.36		\$0.00	\$ 1,230.61	\$ 9,717.61
	SENIOR ENG	206	\$48.11	\$ 9,910.66	\$ 16,352.59		\$0.00	\$ 3,808.17	\$ 30,071.42
	PROFESSIONAL ENG	200	\$31.14	\$ 6,228.00	\$ 10,276.20		\$0.00	\$ 2,393.11	\$ 18,897.31
	PROF LAND SURVEYOR	44	\$35.83	\$ 1,576.52	\$ 2,601.26		\$0.00	\$ 605.78	\$ 4,783.56
	SR ENG TECH	540	\$27.82	\$ 15,022.80	\$ 24,787.62		\$0.00	\$ 5,772.51	\$ 45,582.93
	ENG TECH II	582	\$20.25	\$ 11,785.50	\$ 19,446.08		\$0.00	\$ 4,528.58	\$ 35,760.15
	CLERICAL	80	\$22.20	\$ 1,776.00	\$ 2,930.40		\$0.00	\$ 682.43	\$ 5,388.83
									\$ -
Final Plans Specifications and Estimate									
	PRINCIPAL ENG	40	\$57.19	\$ 2,287.60	\$ 3,774.54		\$0.00	\$ 879.01	\$ 6,941.15
	SENIOR ENG	122	\$48.11	\$ 5,869.42	\$ 9,684.54		\$0.00	\$ 2,255.32	\$ 17,809.29
	PROFESSIONAL ENG	112	\$31.14	\$ 3,487.68	\$ 5,754.67		\$0.00	\$ 1,340.14	\$ 10,582.49
	SR ENG TECH	190	\$27.82	\$ 5,285.80	\$ 8,721.57		\$0.00	\$ 2,031.07	\$ 16,038.44
	ENG TECH II	250	\$20.25	\$ 5,062.50	\$ 8,353.13		\$0.00	\$ 1,945.27	\$ 15,360.89
	CLERICAL	120	\$22.20	\$ 2,664.00	\$ 4,395.60		\$0.00	\$ 1,023.64	\$ 8,083.24
	Subconsultant Management Fee (5%)					\$ 54,500.00			\$ 2,725.00
	In House Direct Costs (See Attached Estimate)						\$11,510.00		\$ 11,510.00
Totals		5244		\$ 144,367.22	\$ 238,205.92	\$ 54,500.00	\$11,510.00	\$ 55,473.10	\$ 506,781.23

Exhibit B - Project 1

**Traffic Signal Modernization and
Interconnect to Lake County PASSAGE Network
IL Route 43 (Waukegan Road) from
Casimir Pulaski Drive to Norman Drive South
in Waukegan, Illinois**

**Section NO. 12-00999-28-L
Lake County, Illinois**

Direct Cost Estimate

Printing Expenses:

▪ Preliminary Plans for Utility Coordination	
Assume 30 sheets x 10 sets x 5.2 x \$0.25/SF	\$390.00
▪ Pre-Final Plans	
Assume 50 sheets x 7 sets x 5.2 sf x \$0.25/SF	\$455.00
▪ Specification Books	
Assume 160 sheets x 7 sets x \$0.15/sheet	\$168.00
▪ Final Plans	
Assume 60 sheets x 15 sets x 5.2 sf x \$0.25/sf	\$1,170.00
▪ Specification Books	
Assume 200 sheets x 15 sets x \$0.15/sheet	\$450.00
Shipping Expense: 30 submittals x \$15.00/submittal	\$450.00
Vehicle Expense: 1,500 miles x \$0.50/mile	<u>\$750.00</u>
Anticipated Direct Cost Estimate:	\$3,833.00

Exhibit B – Project 2

**Traffic Signal Modernization and
Interconnect to Lake County PASSAGE Network
IL Route 137 (Sheridan Road) from
Grand Avenue to Wadsworth
in Waukegan and Zion, Illinois**

**Section No. 12-00999-29-TL
Lake County, Illinois**

Direct Cost Estimate

Printing Expenses:

▪ Preliminary Plans for Utility Coordination Assume 30 sheets x 10 sets x 5.2 x \$0.25/SF	\$390.00
▪ Pre-Final Plans Assume 50 sheets x 7 sets x 5.2 sf x \$0.25/SF	\$455.00
▪ Specification Books Assume 160 sheets x 7 sets x \$0.15/sheet	\$168.00
▪ Final Plans Assume 60 sheets x 15 sets x 5.2 sf x \$0.25/sf	\$1,170.00
▪ Specification Books Assume 200 sheets x 15 sets x \$0.15/sheet	\$450.00
Shipping Expense: 30 submittals x \$15.00/submittal	\$450.00
Vehicle Expense: 1,500 miles x \$0.50/mile	<u>\$750.00</u>
Anticipated Direct Cost Estimate:	\$3,833.00

Exhibit B – Project 3

**Traffic Signal Modernization and
Interconnect to Lake County PASSAGE Network
Sunset Avenue/Golf Road/Greenwood Avenue
Glen Flora Avenue, Jackson Street and 10th Street
in the City of Waukegan and City of North Chicago, Illinois**

**Section No. 12-00999-30-TL
Lake County, Illinois**

Direct Cost Estimate

Printing Expenses:

▪ Preliminary Plans for Utility Coordination Assume 30 sheets x 10 sets x 5.2 x \$0.25/SF	\$390.00
▪ Pre-Final Plans Assume 55 sheets x 7 sets x 5.2 sf x \$0.25/SF	\$500.50
▪ Specification Books Assume 120 sheets x 7 sets x \$0.15/sheet	\$126.00
▪ Final Plans Assume 65 sheets x 15 sets x 5.2 sf x \$0.25/sf	\$1,267.50
▪ Specification Books Assume 160 sheets x 15 sets x \$0.15/sheet	\$360.00
Shipping Expense: 30 submittals x \$15.00/submittal	\$450.00
Vehicle Expense: 1,500 miles x \$0.50/mile	<u>\$750.00</u>
Anticipated Direct Cost Estimate:	\$3,844.00

Appendix I – Project 1 - Anticipated List of Drawings

Design Engineering Services Traffic Signal Modernization and Interconnect to Lake County PASSAGE Network

IL Route 43 (Waukegan Road) from Casimir Pulaski Drive to Norman Drive South in Waukegan, Illinois

Section No. 12-00999-28-TL

Lake County, Illinois

Title Sheet	1 sheet
General Notes	1 sheet
Summary of Quantities	4 sheets
Temporary Traffic Signal Installation Plan	3 sheets
Temporary Cable Plan and Phase Designation Diagram	3 sheets
Traffic Signal Installation Plan	9 sheets
Cable Plan, Phase Designation Diagram and Schedule of Quantities	9 sheets
Interconnect Plan	4 sheets
Interconnect Schematic and Schedule of Quantities	2 sheets
Video Transmission System Schematic	4 sheets
Video Detection Details	2 sheets
Mast Arm Mounted LED Street Name Signs	1 sheets
Typical Pavement Markings for County Highways	3 sheets
LCDOT Standard Traffic Signal Design Details	2 sheets
LCDOT Standard Details	4 sheets
IDOT District One Standard Traffic Signal Design Details	6 sheets
Total Anticipated Number of Sheets	58 sheets

Appendix I – Project 2 - Anticipated List of Drawings

Design Engineering Services Traffic Signal Modernization and Interconnect to Lake County PASSAGE Network

IL Route 137 (Sheridan Road) from Grand Avenue to Wadsworth Road in Waukegan and Zion, Illinois

Section No. 12-00999-29-TL

Lake County, Illinois

Title Sheet	1 sheet
General Notes	1 sheet
Summary of Quantities	4 sheets
Temporary Traffic Signal Installation Plan	4 sheets
Temporary Cable Plan and Phase Designation Diagram	4 sheets
Traffic Signal Installation Plan	7 sheets
Cable Plan, Phase Designation Diagram and Schedule of Quantities	7 sheets
Interconnect Plan	9 sheets
Interconnect Schematic and Schedule of Quantities	2 sheets
Video Transmission System Schematic	4 sheets
Video Detection Details	2 sheets
Mast Arm Mounted LED Street Name Signs	2 sheets
Typical Pavement Markings for County Highways	3 sheets
LCDOT Standard Traffic Signal Design Details	2 sheets
LCDOT Standard Details	4 sheets
IDOT District One Standard Traffic Signal Design Details	6 sheets
Total Anticipated Number of Sheets	62 sheets

Appendix I – Project 3 - Anticipated List of Drawings

Traffic Signal Modernization and Interconnect to Lake County PASSAGE Network

Sunset Avenue/Golf Road/Greenwood Avenue Glen Flora Avenue, Jackson Street and 10th Street in the City of Waukegan and City of North Chicago, Illinois

Section No. 12-00999-30-TL

Lake County, Illinois

Title Sheet	1 sheet
General Notes	1 sheet
Summary of Quantities	4 sheets
Temporary Traffic Signal Installation Plan	2 sheets
Temporary Cable Plan and Phase Designation Diagram	2 sheets
Traffic Signal Installation Plan	14 sheets
Cable Plan, Phase Designation Diagram and Schedule of Quantities	14 sheets
Interconnect Plan	6 sheets
Interconnect Schematic and Schedule of Quantities	3 sheets
Video Transmission System Schematic	4 sheets
Video Detection Details	2 sheets
Mast Arm Mounted LED Street Name Signs	2 sheets
Typical Pavement Markings for County Highways	3 sheets
LCDOT Standard Traffic Signal Design Details	2 sheets
LCDOT Standard Details	4 sheets
Total Anticipated Number of Sheets	64 sheets