

**RESOLUTION
R 107-13**

**A RESOLUTION AUTHORIZING SIGNATURE OF
PRESIDENT AND CLERK ON AN AGREEMENT**

WHEREAS, the Corporate Authorities of the Village of Lombard have received an Agreement between the Village of Lombard, and Civiltech Engineering Inc. regarding the Lombard Meadows Reconstruction – Phase I (Chase Lane and Chase Court) project as attached hereto and marked Exhibit "A"; and

WHEREAS, the Corporate Authorities deem it to be in the best interest of the Village of Lombard to approve such agreement.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS as follows:

SECTION 1: That the Village President be and hereby is authorized to sign on behalf of the Village of Lombard said agreement as attached hereto.

SECTION 2: That the Village Clerk be and hereby is authorized to attest said agreement as attached hereto.


Adopted this 2nd day of May, 2013.

Ayes: Trustee Whittington, Foltyniewicz, Breen, Fitzpatrick, and Ware

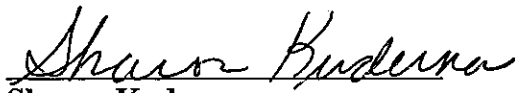
Nays: None

Absent: None

Approved this 2nd day of May, 2013.


Keith Giagnorio
Village President

ATTEST:


Sharon Kuderna
Village Clerk

VILLAGE OF LOMBARD CONTRACT

CONTRACT DOCUMENT NUMBER ST-13-07

This agreement is made this 2nd day of May, 2013, between and shall be binding upon the VILLAGE of Lombard, an Illinois municipal Corporation hereinafter referred to as the "VILLAGE" and Civiltech Engineering Inc. hereinafter referred to as the "ENGINEER" and its successors.

Witnessed, that in consideration of the mutual promises of the parties delineated in the contract documents, the ENGINEER agrees to perform the services and the VILLAGE agrees to pay for the following services as set forth in the contract documents:

Preliminary and Design Engineering Services for the Lombard Meadows Reconstruction – Phase I Project

1. This contract shall embrace and include all of the applicable contract documents listed below as if attached hereto or repeated herein:
 - a. VILLAGE'S Request for Qualifications for Short-List for Engineering Services Dated January 13, 2012
 - b. ENGINEER'S Statement of Qualifications Dated February 3, 2012
 - c. ENGINEER'S Proposal Dated March 22, 2013
 - d. ENGINEER'S Work Effort and Fee submittal Dated April 9, 2013
 - e. Required Certificates and Signatures and Certificate of Insurance
2. The VILLAGE agrees to pay, and the ENGINEER agrees to accept as full payment for the services which are the subject matter of this contract in accordance with the General Provisions.
3. This Contract represents the entire agreement between the parties and may not be modified without the written approval of both parties.

IN WITNESS WHEREOF, the Village of Lombard, Illinois by the Village President, and the ENGINEER have hereunto set their hands this 2nd day of May, 2013.

If an individual or partnership, all individual names of each partner shall be signed or if a corporation, an officer duly authorized shall sign here:

Civiltech Engineering Inc.

Accepted this _____ day of _____, 2013.

Individual or Partnership _____ Corporation _____

By _____ Position/Title

By _____ Position/Title

THE VILLAGE OF LOMBARD, ILLINOIS

Accepted this 2nd day of May, 2013.



Village President

Attest: 

Village Clerk

VILLAGE OF LOMBARD ENGINEER'S CERTIFICATION

_____, having been first duly sworn depose and states as follows:
(Officer or Owner of Company)

Civiltech Engineering Inc., having submitted a proposal for: Lombard Meadows Reconstruction – Phase I to the Village of Lombard, hereby certifies that said ENGINEER:

1. has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A) (4).
2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the approve Revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.
3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that

(Name of employee/driver or "all employee drivers")
is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules.

By:

Officer or Owner of Company named above

Subscribed and sworn to
before me this _____
day of _____, 2013.

Notary Public

Proposal to Furnish Design Engineering Services

Lombard Meadows Reconstruction
Village of Lombard | April 9, 2013

All work identified herein will be performed by Civiltech Engineering, Inc. located at 450 E. Devon Ave., Ste. 300, Itasca, Illinois 60143. Mr. Jonathan R. Vana, P.E. shall serve as the contact person responsible for and knowledgeable of this proposal (630) 735-3382, jvana@civiltechinc.com.

1. LOMBARD MEADOWS RECONSTRUCTION PROJECT UNDERSTANDING AND APPROACH:

Our understanding of the project is based on a review of the Village's Request for Proposal document, an initial site visit, and information conveyed at the Question and Answer session held at the Village of Lombard Public Works Department.

Phase I of the Lombard Meadows reconstruction project involves the reconstruction Chase Lane from the intersection of Lilac Way to the northern terminus just north of Bradley Lane. Bradley Lane serves as the primary access to Madison Meadow Park, which is home to several recreational activities. Civiltech successfully coordinated with the Lombard Park District with respect to impacts to the Sunset Knoll Recreation Center as part of the Finley Road rehabilitation project. We will continue that same successful history of proactive coordination as part of this project. Improvements will also extend onto Chase Court extending northeast of Chase Lane.

Chase Lane is a hot mix asphalt roadway that has reached the end of its useful life, and is composed of approximately 3 inches of HMA pavement over a stone base. A grind and overlay was completed approximately 20 years ago. This project will reconstruct the pavement and include municipal utility, pedestrian facility and street lighting improvements in accordance with the current Village standard guidelines for this type of project. Chase Lane is the first phase of five planned phases within the Lombard Meadows area as outlined in the Village's FY 12 to FY 21 Capital Improvement Plan, with funding coming from the Capital Project and Water/Sewer capital Reserve funds.

Civiltech's proposed design team has extensive experience completing multi phase improvements in residential neighborhoods including the Lombard Hill East projects and the Old Towne East projects. Our experience enables our designers to recognize and plan for work in adjacent future phases, and identify critical design elements as well as cost saving opportunities. The same core group of designers that completed the multiple phases of the aforementioned projects is targeted to serve the Village as part of Phase I of the Lombard Meadows project. We understand the importance and benefits of providing continuity of staff when it comes to knowledge and efficiency in completing the Village's projects, and will commit to maintain the level of responsive service that Lombard has come to expect from Civiltech's designers.

Civiltech has a successful history of identifying critical design elements up front during the Preliminary design stage in order to produce accurate scope of work and budget information that carries through the pre-final and final design stages of the project. Our experience having completed these types of projects for the Village gives our designers an edge over our competitors. The Preliminary PDR stage of the design will involve the identification and review of all critical design and project task elements to define the ultimate scope of work and cost:

1. Pavement Analysis and Design
2. Preliminary Geometric Design
3. Sidewalk/Pedestrian Facilities and ADA/PROWAG Compliance

4. Geotechnical Study, Pavement Cores and CCDD Compliance (work with Village's Consultant)
5. Condition and Capacity of Existing Storm and Sanitary Sewers
6. Watermain Replacement Strategies (incl. re-routing of existing 6 inch through ped. corridor)
7. Utility Structure Inventory
8. Identification and Evaluation of Problematic Drainage Locations
9. Inlet Spacing and Storm Sewer Design
10. Sanitary Sewer Improvements Alternative Analysis
11. Tree Condition and Impact Assessment
12. Construction Staging and Maintenance of Traffic
13. Private Utility Investigation and Conflict Assessment
14. Project Right-of-way Confirmation and Easement Requirements
15. Conceptual Street Lighting Design
16. DuPage County Countywide Stormwater and Flood Plain Ordinance Compliance
17. Future Lombard Meadows Phasing Compatibility Analysis
18. Public Involvement Plan
19. Preliminary Quantity Calculations and Estimates of Cost and Time

The above items are the critical tasks that our designers will focus on during the Preliminary Engineering stage of the project to establish the basis for proceeding with the contract plans, special provisions and estimates.

Utility improvements are anticipated to involve watermain, storm and sanitary sewers as well as the associated services within the Village right-of-way. Our experience with these types of projects dictates that an evaluation of the existing sewers will be required, and the Village will provide sewer videos for use in scoping the utility improvements as part of the Preliminary design stage. As is typical with most projects of this nature, additional inlet capacity will be provided as part of the improvements, and sewer extensions will be required to accomplish this goal. There is also a storm inlet connection to the sanitary sewer on Chase Court that will be connected to the storm sewer as part of the project. We will also review the right-of-way corridor to identify localized drainage problems, and will seek resident input during the design phase to resolve private property drainage concerns as appropriate. Parkway drainage does not generally appear to be a problem in the existing condition, and we will ensure that positive parkway drainage and acceptable driveway profiles are maintained when establishing the new roadway profile during the design of the improvements. One of the only sets of inlets on Chase Lane is located at the sag in the profile, which currently falls in the middle of driveways existing on each side of the roadway. One of our design goals will be to shift this low point so that it does not place inlets within the limits of the driveways. Stormwater detention is not anticipated to be required based on the scope of the project.

One of the project objectives will be to replace and abandon the current watermain connection that extends along the pedestrian corridor between 6 and 7 Chase Court and east to Ahrens Avenue. Alternatives will likely involve new main construction along Bradley Lane or through Park District property either north to Madison Street or north and then east back out to Ahrens Avenue. We will coordinate with the Village and Park District and provide the necessary information to secure any permanent easements required to construct alternative watermain connections. Jorgensen and Associates will prepare any easement documents required as part of the watermain realignment. Civiltech's designers are very experienced with watermain design for the Village based on past residential project experience as well as the Village's Roosevelt Road watermain project. We will not preclude the feasibility of lining the existing watermain as should conditions arise that makes a new connection along a new

alignment problematic for unforeseen reasons, or too expensive. The remaining 6 inch watermain in the project area will be upgraded to the Village's minimum standard of 8 inch with new services within the right-of-way.

The condition of the existing 8 inch sanitary sewer system including structures will be evaluated as part of the Preliminary design phase by reviewing video tapes and field inspections. The scope of sanitary sewer improvements will be determined based on our findings in conjunction with Village Underground Division input. Recommendations for rehabilitation or replacement will be made during the PDR stage of the project, and will include a review of service connections.

Thirty-seven properties will be directly affected by these improvements, with other stakeholders being neighborhood residents, Madison Meadow Park users, the Lombard Park District, school districts, churches, and local service providers such as garbage and mail. Civiltech will work with the Village to determine the necessary level of public outreach and involvement to obtain design input and prepare all stakeholders for the construction phase. We anticipate this to involve two design stage public meetings and various other coordination activities with the local government agencies.

One of the goals of this project will be to provide ADA/PROWAG compliant conditions. All components of the project will need to meet the requirements of the Americans with Disabilities Act, under the guidance of the Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way.

- A) **Provide ADA compliant curb ramps** – Based on our field visit, the existing curb ramps do not have the current, standard detectable warnings (truncated domes) and do not meet ADA requirements. In addition, the curb ramps will need to be removed in order to construct the new curb and gutter.

Although IDOT has recently updated their Highway Standards to include several options for providing curb ramps, we believe it is in the best interest of the project to include detailed grading plans at each of the curb ramps. This will ensure that the grades proposed are less than the maximum allowed, and has the added benefit of making the layout of the sidewalk more straight-forward during construction, leading to fewer opportunities for the curb ramp to be constructed out of compliance.

- B) **Provide ADA compliant driveway crossings** – The maximum allowable slope of the driveways within the area of the sidewalk crossing is 2%. We will review each driveway location, and if the slope is greater than 2%, a flatter area will be provided at the crossing location. If this flatter area cannot be achieved without the slope of the driveway exceeding the maximum allowed by the Village, a temporary easement will need to be provided to reduce the slope.
- C) **Additional PROWAG requirements** – There are two other requirements that will affect the scope of sidewalk construction – trip hazards (maximum of ¼" elevation difference between panels) and maximum cross slope (2%). We will field walk the sidewalk to determine what areas need to be replaced.

2. SCOPE OF SERVICES

A. Preliminary Engineering Phase

The primary objective of the Preliminary Engineering Phase is to develop a conceptual improvement plan which fulfills all of the requirements for processing and funding of this project. The Preliminary Engineering services will meet the pertinent requirements of the Village of Lombard and IDOT standards and specifications, as applicable.

The following major work items will likely be required to complete the Preliminary Engineering phase of the project:

Item 1 - Initial Meeting with Village - This work item will include an initial meeting with the Village to determine what available data and record information exists that will be useful in the design process, and to discuss the project requirements in detail. We anticipate that the initial meeting will include members from the Village of Lombard Public Works, Engineering, and Underground Utilities divisions. The initial meeting with the Village will be the basis for development of an Itemized Scope and Task List.

Item 2 - Early Coordination and Data Collection - We will obtain and review available Village data including, but not limited to, subdivision plans and plats, record plans, previously completed geotechnical and pavement reports, right-of-way data, aerial photography and contour mapping, municipal utility atlases, and private utility atlases. In addition, the data collection for this project will include a complete photolog in order to document existing conditions for use during design.

Item 3 – Field Survey, Preparation of Base Sheets, and Structure Survey - The design survey for this project will be completed by Jorgensen and Associates as a sub-consultant to Civiltech. A full topographic survey within the right-of-way limits will be required. The survey will extend outside the right-of-way at driveway locations in the cases where easements are required. It will also extend approximately 10 feet outside of the right-of-way at intersection quadrants in case transition grading is required to meet ADA/PROWAG grading standards for sidewalk ramps.

We will prepare a structure inventory report which will include the type and condition for each manhole, drainage structure and valve vault within the project limits. This information will be used to assess the need for adjustment, reconstruction or replacement of these structures as part of the design phase. Pipe material, size and invert information will be collected for use in plotting utilities in the profile view, which will be required as part of obtaining the IEPA permits.

We will plot the existing topographic survey information and develop plan base sheets at a scale of 1" = 20' and 1" = 50' for use in the development of contract plans. Cross sections will be prepared at 50-foot intervals and will include full sections at intersections and high and low points along the roadway profile. Half width cross sections will be prepared at driveways and street intersections. Existing utility information that has been obtained during the data collection phase will also be plotted on the base sheets.

Once base sheets have been prepared, we will perform a "plan in hand" field check during which we will:

- Verify the completeness and accuracy of the design survey while familiarizing ourselves with the project area and any special conditions in the field.
- Review the project area for any problematic drainage conditions that can be remedied as part of this project.
- Prepare a detailed inventory of existing signage and any other topographic features which may impact or be impacted by the proposed design.

- Establish as accurately as possible, the locations of existing private utilities in the field using atlases obtained during the Data Collection and Early Coordination Phase.
- Photo document the project area for use during design.

Item 4 – Coordination with Geotechnical / Environmental Consultant – Civiltech will coordinate with the Village’s Consultant to discuss the scope of their field work and ensure that the required information is obtained for design and preparation of contract plans and specifications.

Item 5 - Design Criteria and Preliminary Design Studies - Based on information obtained under items one through three above, we will develop relevant design criteria and standards for use in proceeding with the Preliminary Engineering stage of the Project. The Preliminary Engineering work will address the following:

1. Pavement Analysis and Design
2. Preliminary Geometric Design
3. Sidewalk/Pedestrian Facilities and ADA/PROWAG Compliance
4. Geotechnical Study, Pavement Cores and CCDD Compliance (work with Village’s Consultant)
5. Condition and Capacity of Existing Storm and Sanitary Sewers
6. Watermain Replacement Strategies (includes re-routing of existing 6 inch through pedestrian corridor)
7. Utility Structure Inventory
8. Identification and Evaluation of Problematic Drainage Locations
9. Inlet Spacing and Storm Sewer Design
10. Sanitary Sewer Improvements Alternative Analysis
11. Tree Condition and Impact Assessment
12. Construction Staging and Maintenance of Traffic
13. Private Utility Investigation and Conflict Assessment
14. Project Right-of-way Confirmation and Easement Requirements
15. Conceptual Street Lighting Design
16. DuPage County Countywide Stormwater and Flood Plain Ordinance Compliance
17. Future Lombard Meadows Phasing Compatibility Analysis
18. Public Involvement Plan
19. Preliminary Quantity Calculations and Estimates of Cost and Time

Based on the established design criteria and standards, we will prepare a Project Development Report (PDR) that will consist of a technical memorandum addressing the above listed design components of the Project. Furthermore, we anticipate the development of various design exhibits for inclusion in the PDR. The pre-final report will be submitted to the Village for review and comment. We anticipate meeting with the Village to discuss any review comments and design issues prior to finalizing the report.

Item 6 - Finalize Project Development Report - Based on the Village’s review, we will finalize the PDR, which will serve as the basis for the Design Engineering Phase of the Project. The final report will be submitted to the Village Public Works and Engineering Staff, and if required, presented to the Board of Trustees.

B. Design Engineering Phase

Once the design report has been approved, we will proceed with the Design Phase. This phase of the project will consist of the preparation of contract plans and specifications for the construction of the improvements. The following major work items are anticipated to complete the Design Engineering Phase of this project:

Item 1 - Preliminary and Pre-Final Contract Plans - Based on the findings of the Preliminary Engineering Phase described above, we will prepare preliminary (65%), pre-final (95%), and QA/QC contract plans. We anticipate that the plans will likely contain the following drawings:

- Title Sheet and Index of Sheets (1 sheet)
- Summary of Quantities (2 sheets)
- Schedule of Quantities (4 sheets)
- General Notes and State/Village Standards (1 sheet)
- Existing and Proposed Typical Sections (1 sheet)
- Alignment, Ties and Benchmarks (1"=50') (1 sheet)
- Construction Staging Plan (1"=50') (2 sheets)
- Roadway Plan and Profile (1" = 20') (4 sheets)
- Drainage and Utility Plan and Profile (1"=20') (5 sheets)
- Intersection Grading Details (1"=10') (3 sheets)
- Erosion Control and Landscaping (1"=50') (1 sheet)
- Cross Sections (1"=10'H : 1"=5'V) (8 Sheets)
- Construction Details (3 sheets)
- Lighting Plans (1"=20) (2 sheets)
- Lighting Circuit Diagram (1 sheet)
- Lighting Details (2 sheets)

Detailed quantity calculations will be performed at all milestone stages of the project in order to develop an accurate Engineer's Estimate of Cost. An Estimate of Construction Time will also be prepared.

Detailed special provisions supplementing the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2012 by the Illinois Department of Transportation, will be prepared. All work will be in accordance with Village Standards and Specifications and the 2009 Standard Specifications for Water and Sewer Construction in Illinois. A bid booklet will be developed using Village standard forms for the bidding documents, including notice to bidders, bid bond, contract and contract bond, schedule of prices, signature sheets, and the project special provisions.

We will also submit the contract plans to the various utility companies. The Preliminary submittal will sufficiently define the conflicts so that the utility companies can, at a minimum, perform the necessary engineering for any required utility relocations. This allows relocations to be performed in advance of the actual construction. Civiltech will perform the necessary coordination with the utility companies and follow up as needed on each of our submittals to ensure that no utility company is ignoring the project.

Item 2 – IEPA Project Permitting – We will submit the plans and special provisions to the IEPA upon resolution of Preliminary plan comments received from the Village and IDOT in order to initiate the IEPA permit review process, and ultimately obtain a permit for each phase of the project.

Item 3 Pre-final QC/QA Review - Prior to submission of the pre-final plans for review, we will perform an internal Quality Control / Quality Assurance review of the work completed in accordance with Civiltech's internal Design Engineering Quality Control / Quality Assurance Plan. The review will be performed by a professional engineer independent of the design team. The review will consider constructability issues as well as identification of missing pay items, quantities of work, and special provisions required. The design team will also perform a "plan-in-hand" field check to confirm the existing conditions and design.

Item 4 - Submittals and Coordination - This item includes all reviews and meetings with the Village to obtain final plan and permit approval. An initial submittal of the 65% contract plans will be made to the Village to ensure the goals and requirements of the approved PDR are being followed. Once the contract plans and supporting documents have been completed to a pre-final (95% complete) stage, plans, specifications, and estimates will be submitted to the Village. We will also issue a QA/QC set of contract documents to the Village prior to the Final P, S & E stage.

Civiltech will also assist the Village with Park District coordination and communication, and prepare exhibits as required to address any impacts to Madison Meadow Park. With direction from the Village, we will also submit the plans to the Park District in efforts to communicate details about the project.

Item 6 - Utility Company Coordination - As noted above, we will analyze the project for potential impacts to existing utilities. We will provide the utility companies with a list of areas of potential conflict so that additional information, such as horizontal locates or depth borings, can be obtained where necessary to further define the extent of conflicts. We will first attempt to address utility conflicts through design modifications while considering the impact those changes will have on the overall improvement.

Should any utility relocation work be necessary, we will work with the utilities as they develop relocations plans, provide them with electronic files when requested and review those plans when they are submitted. We will meet with the utility companies when required to assist in the conflict resolution.

Item 5 – Public Meetings and Coordination – Civiltech will work closely with the Village to develop a Public Involvement plan that successfully gathers and disseminates the necessary information to the project stakeholders. Civiltech will work with the Village to identify the stakeholders, define the objectives of the public involvement phase of the work, and develop the necessary communication strategies and tools. Civiltech will attend, assist with organizing and lead all public meetings. We will make the necessary presentations and prepare any required exhibits.

It is anticipated that meetings may be held during the Preliminary stage of the design to collect information and input from residents, and then once again during the final design stage to prepare the stakeholders and residents for what to expect during construction.

Item 6 - Final QC/QA Review - Prior to the final submittal a second QC/QA review of the plans and special provisions will be performed, in accordance with Civiltech's internal Design Engineering Quality Control / Quality Assurance Plan.

Item 7 - Final (100%) Plans, Special Provisions/Bid Booklet and Estimates - After completion of the Village's review and resolution of other concerns the contract plans, special provisions, bid booklet and Engineer's Estimate of Cost and Time will be finalized. We will furnish the Village the appropriate number of copies of the plans and special provisions along with the electronic drawing and .pdf files.

3. PROJECT SCHEDULE

Notice to Proceed	May 7, 2013
Draft PDR Submittal	August 5, 2013
Final PDR Submittal	September 16, 2013
Preliminary (65%) Plan Submittal	October 14, 2013
Pre-Final (95%) P, S & E Submittal	December 2, 2013
QC/QA Submittal	January 13, 2014
Final (100%) P, S & E Submittal	January 27, 2014
Bid Opening	February 21, 2014



Lombard Meadows Reconstruction

Cost Estimate of Consultant Services

Personnel & Hours									
Director of Design Services	Project Manager	Project Engineer	Design Engineer	Lighting Engineer	Design Technician	QC/QA Engineer	Total Hours	% of Hours	Labor Cost
\$65.00	\$47.00	\$37.75	\$29.75	\$34.00	\$25.50	\$65.00			
8	64	125	120	42	62	2	423	32.3%	\$14,955.75
43	109	241	236	87	149	20	885	67.7%	\$32,094.25
Total Labor Cost									
\$47,050.00									
Multiplier = 2.75									
\$129,388									
Direct Costs and Sub Consultant Expense (See attached calculation)									
\$28,326									
Total Engineering Cost:							1308	100.0%	\$157,714



Lombard Meadows Reconstruction

Manhours

Task No.	Task	Personnel & Hours						Total Hours	% of Hours
		Director of Design Services	Project Manager	Project Engineer	Design Engineer	Lighting Engineer	Design Technician		
A.	Preliminary Engineering Phase								
1	Initial Meeting with Village		3	4				7	1.7%
2	Early Coordination and Data Collection		2	4				6	1.5%
3	Field Survey, Preparation of Base Sheets, and Structure Survey					2			
	Base Sheet Preparation		1	4	8			13	3.2%
	Field Verification of Survey Data and Project Walk-thru		6	6	6			18	4.3%
	Utility Structure Inventory			2	16			18	4.3%
	Project Photos		2	2				4	0.9%
4	Coordination with Geotechnical / Environmental Consultant		2	2				4	0.9%
5	Design Criteria and Preliminary Design Studies		1	1				2	0.5%
	Pavement Analysis and Design		8	24				32	7.8%
	Preliminary Geometric Design		4	8				12	2.9%
	Sidewalk/roadway Facilities and ADAPROWAG Compliance		2	4				6	1.4%
	Condition and Capacity of Existing Storm and Sanitary Sewers		1	2				3	0.7%
	Inlet Spacing and Storm Sewer Design		2	8	15			25	6.1%
	Watermain Replacement / Connection Strategies		2	4	4			10	2.4%
	Sanitary Sewer Improvements Alternative Analysis		2	4	4			10	2.4%
	Construction Staging and Maintenance of Traffic		2	4	2			8	1.9%
	Project Right-of-Way Confirmation and Easement Requirements		2	4				6	1.4%
	Conceptual Street Lighting Design (including controller alternative analysis)		1	2				3	0.7%
	DuPage County Countywide Stormwater and Flood Plain Ordinance Compliance		2	2				4	1.0%
	Future Lombard Meadows Phasing Compatibility Analysis		4	4				8	1.9%
	Public Involvement Plan		2	2				4	1.0%
	Preliminary Quantity Calculations and Estimates of Cost and Time		2	16	16			34	8.2%
6	Finalize Project Development Report		8	8	8			24	5.8%
	Sub-total Item A		64	125	120	42	62	413	100.0%
B	Design Engineering Phase								
1	Preliminary and Pre-Final Contract Plans		1	1				2	0.5%
	Cover Sheet and Index of Sheets (1 sheet)			2				2	0.5%
	Schedule of Quantities (2 sheets)		1	2				3	0.7%
	General Notes and State/Village Standards (1 sheet)		1	4				5	1.2%
	Existing and Proposed Typical Sections (1 sheet)		2	4				6	1.4%
	Alignment, Ties and Benchmarks (1"-50') (2 sheets)		2	4				6	1.4%
	Construction Staging Plan (1"-50') (2 sheets)		2	4				6	1.4%
	Roadway Plan and Profile (1"-20') (4 sheets)		2	8	12			22	5.3%
	Drainage and Utility Plan and Profile (1"-20') (3 sheets)		2	8	32			42	10.2%
	Intersection Grading Details (1"-10') (3 sheets)		4	12	40			56	13.5%
	Erosion Control and Landscaping (1"-50') (1 sheet)		2	4	16			22	5.3%
	Cross Sections (1"-10'H: 1"-50') (8 sheets)		2	4	4			10	2.4%
	Construction Details (3 sheets)		2	12	24			38	9.2%
	Lighting Plans (1"-20') (2 sheets)		2	2	4			8	1.9%
	Lighting Circuit Diagram (1 sheet)		2	2				4	1.0%
	Lighting Details (2 sheets)		2	4	4			10	2.4%
	Special Provisions and Bid Book		8	16				24	5.8%
	Quantity Calculations		24	24				48	11.6%
	Estimate of Construction Cost and Time		2					2	0.5%
2	IEPA Project Permitting		4	4				8	1.9%
3	Pre-final QC/QA Review		12					12	2.9%
4	Submittals and Coordination		2	8	8			18	4.3%
5	Utility Company Coordination		2	4	4			10	2.4%
6	Public Meeting and Coordination		4	8	8			20	4.8%
7	Final QC/QA Review		8	8				16	3.8%
8	Final (100%) Plans, Special Provisions/Bid Booklet and Estimates		2	24	24			50	12.1%
	Final Plans		2	24	24			50	12.1%
	Final Special Provisions and Bid Book		8	4				12	2.9%
	Final Quantity Calculations		2	12	12			26	6.2%
	Final Estimate of Construction Cost and Time		2	2				4	0.9%
	Sub-total Item B		43	109	216	87	149	495	100.0%
	Total Hours:		51	173	366	129	211	1008	
	% of Hours:		3.9%	13.2%	28.0%	9.9%	16.1%	100.0%	

Direct Costs

DIRECT COSTS	
ITEM 1 - Printing	
<i>Pre-Final PDR</i>	
Village 7 books X \$20/book	\$140.00
<i>Final PDR</i>	
Village 7 books X \$20/book	\$140.00
<i>Preliminary Plans</i>	
Village 7 sets X 41 sheets/set X \$0.60/sheet	\$172.20
Utility Co. 8 sets X 41 sheets/set X \$0.60/sheet	\$196.80
<i>Pre-Final Plans</i>	
Village 7 sets X 41 sheets/set X \$0.60/sheet	\$172.20
Utility Co. 8 sets X 41 sheets/set X \$0.60/sheet	\$196.80
<i>Pre-Final Specification Books</i>	
Village 7 books X \$20/book	\$140.00
<i>QC/QA Plans</i>	
Village 7 sets X 41 sheets/set X \$0.60/sheet	\$172.20
Utility Co. 8 sets X 41 sheets/set X \$0.60/sheet	\$196.80
<i>QC/QA Specification Books</i>	
Village 7 books X \$20/book	\$140.00
<i>Final Plans</i>	
Village 7 sets X 41 sheets/set X \$0.60/sheet	\$172.20
Utility Co. 8 sets X 41 sheets/set X \$0.60/sheet	\$196.80
<i>Final Specification Books</i>	
Village 7 books X \$20/book	\$140.00
Total Item 1	\$2,176.00
ITEM 2 - Shipping	
25 overnight shipping items X \$25/each	\$625.00
Total Item 2	\$625.00
ITEM 3 - Vehicle Expense	
Mileage	
10 trips x 30 miles per trip x \$0.565/mile	\$169.50
Total Item 3	\$169.50
ITEM 4 - Supplemental Topographic Survey	
<i>(to be completed by Jorgensen and Associates, Inc.)</i>	
Total Item 4	\$18,271.05
ITEM 5 - Topographic Survey and Easement Documents for Watermain Connection	
<i>(to be completed by Jorgensen and Associates, Inc.)</i>	
Total Item 5	\$7,084.45
TOTAL DIRECT EXPENSES:	\$28,326.00



JORGENSEN & ASSOCIATES, INC.
CONSTRUCTION and LAND SURVEYORS
Est. 1990

April 3, 2013

Mr. David J. Kreeger, P.E.
Civiltech Engineering, Inc.
450 East Devon Avenue
Suite 300
Itasca, Illinois 60143

Re: Village of Lombard - Lombard Meadows Phase 1 Survey Proposal

Dear Mr. Kreeger:

Enclosed, please find our proposal to prepare a topographic survey for the referenced project.

I would like to thank you for considering Jorgensen & Associates for this project. We look forward to continuing our working relationship with your firm. Should you have any questions, comments or require any further information concerning our proposal, please feel free to call me at (847)356-3371.

Respectfully submitted,
Jorgensen & Associates, Inc.

Christian H. Jorgensen, P.L.S.
President

CHJ/pt

Enclosures

E:\Civiltech\Lombard\Chase Lane\LTR

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "A"

Hourly Rate Range - Consultant's Regular Staff

<u>Classification</u>	<u>From</u>	<u>To</u>
Principal, Manager, P.L.S.	40.00	42.00
Supervisor, Project Surveyor	38.00	40.00
Cadd Supervisor, Survey Party Chief, S.I.T., Survey Party Chief	21.50	28.50
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	20.00

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "B"

Payroll Burden & Fringe Costs

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act _____	11.71%
State Unemployment Compensation _____	1.81%
Federal Unemployment Compensation _____	0.16%
Workmen's Compensation Insurance _____	1.88%
Paid Holidays, Vacation, Sick Leave, Personal Leave _____	12.20%
Bonus _____	5.05%
Pension _____	0.87%
Group Insurance _____	<u>36.25%</u>
Total Payroll Burden & Fringe Costs	69.93%

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "C"

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Business Insurance _____	4.70%
Depreciation _____	14.08%
Indirect wages and salaries _____	42.12%
Reproductive and printing costs _____	0.19%
Office Supplies _____	3.93%
Computer Costs _____	1.27%
Professional Fees _____	1.64%
Telephone _____	2.06%
Fees, license & dues _____	1.14%
Repairs and maintenance _____	0.50%
Business space rent _____	5.37%
Facilities - capital _____	0.88%
Travel - Meals _____	0.09%
Survey Supplies _____	3.02%
Automobile/travel expense _____	5.39%
Equipment Rental _____	1.00%
Miscellaneous Expense _____	0.70%
State Income Tax _____	0.50%
Postage _____	0.24%
Educational & Professional Registrations _____	<u>0.96%</u>
Total Overhead	89.78%

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

- A. Principal/Officer
- B. Supervisor, P.L.S.
- C. Survey Party Chief, S.I.T.
- D. Instrument Operator
- E. Cadd Supervisor

Classification Rates used for Calculation of Fee

A. Principal/Officer	\$ 42.00
B. Supervisor, P.L.S.	\$ 40.00
C. Survey Party Chief, S.I.T.	\$ 22.00
D. Instrument Operator	\$ 18.25
E. Cadd Supervisor	\$ 27.50

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours @ \$42.00/hour	=	\$ 84.00
Supervisor, P.L.S.	26 hours @ \$40.00/hour	=	\$ 1,040.00
Survey Party Chief, S.I.T.	81 hours @ \$22.00/hour	=	\$ 1,782.00
Instrument Operator	81 hours @ \$18.25/hour	=	\$ 1,478.25
Cadd Supervisor	<u>58 hours</u> @ \$27.50/hour	=	<u>\$ 1,595.00</u>
	248 hours		\$ 5,979.25

$$\text{Average Hourly Rate} = \frac{\$5,979.25}{248} = \$24.11/\text{hour}$$

Route: Chase Lane
 Section: Lombard Meadows Phase 1
 Project:
 County: DuPage
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: April 3, 2013
 Description: Topographic Survey
 Cost Plus Fixed Fee = 14.5%[(2.3 + R)DL + IHDC]

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Sub-Total (E)	Profit (F)	Services By Others	Total	Percent of Grand Total
1) Field - Topographic Survey	162	\$3,260.25	\$5,206.95	\$550.00	\$9,017.20	\$1,167.04	N/A	\$10,184.24	55.74%
2) Office - Compile Field Data	34	\$1,160.00	\$1,852.64	\$65.00	\$3,077.64	\$396.29	N/A	\$3,473.92	19.01%
3) Office - Create Topography Base Sheets	42	\$1,230.00	\$1,964.43	\$0.00	\$3,194.43	\$410.21	N/A	\$3,604.64	19.73%
4) Office - Create T.I.N. & Contours	8	\$245.00	\$391.29	\$0.00	\$636.29	\$81.71	N/A	\$718.00	3.93%
5) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	1.59%
TOTALS	248	\$5,979.25	\$9,549.46	\$653.50	\$16,182.21	\$2,088.84	\$0.00	\$18,271.05	100.00%

Route: Chase Lane
 Section: Lombard Meadows Phase 1
 County: DuPage
 Job No.:

**Manhour Breakdown
 Topographic Survey Estimate**

Chase Lane	$\pm 1,200' = \pm 0.227$ mile
Chase Court & Easement	$\pm 580' = \pm 0.110$ mile
Bradley Lane	$\pm 400' = \pm 0.076$ mile
 Total Length	 $\pm 2,180' = \pm 0.413$ mile

1. Field – Topographic Survey

a. Measure traverse & level circuit 17 hours x 2 men =	34 MH
b. Locate existing R.O.W. & property line occupation 20 hours x 2 men =	40 MH
c. Locate existing topography 44 hours x 2 men =	<u>88 MH</u>
Sub-total Item #1	162 MH

2. Office - Compile Field Data

a. Compute traverse & level circuit 3 hours x 1 man =	3 MH
b. Research records 4 hours x 1 man =	4 MH
c. Compute existing R.O.W. lines 18 hours x 1 man =	18 MH
d. Edit & compile topographic survey 9 hours x 1 man =	<u>9 MH</u>
Sub-total Item #2	34 MH

3. Office - Create Topography Base Sheets

a. Layout and drafting existing topography
36 hours x 1 man = 36 MH

b. Check topographic survey
6 hours x 1 man = 6 MH

Sub-total Item #3 42 MH

4. Office - Create T.I.N. & Contours

a. Compute contours
6 hours x 1 man = 6 MH

b. Check contours
2 hours x 1 man = 2 MH

Sub-total Item #4 8 MH

5. Coordination Meetings

1 meeting @ 2 hours = 2 MH

Total All Items 248 MH

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1. Field – Topography Survey	Survey Party Chief, S.I.T. Instrument Operator	81 81
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	18 16
3. Office – Create Topography Base Sheets	Supervisor, P.L.S. Cadd Supervisor	6 36
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	2 6
5. Coordination Meetings	Principal/Officer	2

Route: Chase Lane
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 10 ea.
 ± 100 miles/trip x 10 trips = $\pm 1,000$ miles
 $\pm 1,000$ miles @ \$0.55/mile = \$ 550.00

2. Office - Compile Field Data

a. Trips to County Recorder - 1 ea.
 ± 100 miles/trip x 1 trip = ± 100 miles
 ± 100 miles @ \$0.55/mile = \$ 55.00

b. Miscellaneous Subdivisions = \$ 10.00

Sub-total Item #2 \$ 65.00

5. Coordination Meetings

a. Meetings at Civiltech's office - 1 ea.
 ± 70 miles/trip x 1 trip = ± 70 miles
 ± 70 miles @ \$0.55/mile = \$ 38.50

Total All Items \$ 653.50

Route: Madison Meadows Park
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

- A. Principal/Officer
- B. Supervisor, P.L.S.
- C. Survey Party Chief, S.I.T.
- D. Instrument Operator
- E. Cadd Supervisor

Classification Rates used for Calculation of Fee

A. Principal/Officer	\$ 42.00
B. Supervisor, P.L.S.	\$ 40.00
C. Survey Party Chief, S.I.T.	\$ 22.00
D. Instrument Operator	\$ 18.25
E. Cadd Supervisor	\$ 27.50

Route: Madison Meadows Park
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours @ \$42.00/hour =	\$ 84.00
Supervisor, P.L.S.	13 hours @ \$40.00/hour =	\$ 520.00
Survey Party Chief, S.I.T.	24 hours @ \$22.00/hour =	\$ 528.00
Instrument Operator	24 hours @ \$18.25/hour =	\$ 438.00
Cadd Supervisor	<u>27 hours @ \$27.50/hour =</u>	<u>\$ 742.50</u>
	90 hours	\$ 2,312.50

$$\text{Average Hourly Rate} = \frac{\$2,312.50}{90} = \$25.69/\text{hour}$$

Route: Madison Meadows Park
 Section: Lombard Meadows Phase 1
 Project: DuPage
 County: DuPage
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: April 3, 2013
 Description: Topographic Survey & Plat of Easement
 Cost Plus Fixed Fee = 14.5% [(2.3 + R)DL + IHDC]

Item	Number Of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Sub-Total (E)	Profit (F)	Services		Percent of Grand Total
							By Others	Total	
1) Field - Topographic Survey	48	\$366.00	\$1,542.80	\$165.00	\$2,673.80	\$346.09	N/A	\$3,019.88	42.63%
2) Office - Compile Field Data	15	\$487.50	\$778.59	\$65.00	\$1,331.09	\$172.01	N/A	\$1,503.09	21.22%
3) Office - Create Topography Base Sheets & Plat of Easement	22	\$680.00	\$1,086.03	\$0.00	\$1,766.03	\$226.78	N/A	\$1,992.81	28.13%
4) Office - Create T.I.N. & Contours	3	\$95.00	\$151.72	\$0.00	\$246.72	\$31.68	N/A	\$278.41	3.93%
5) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	4.10%
TOTALS	90	\$2,312.50	\$3,693.29	\$268.50	\$6,274.29	\$810.15	\$0.00	\$7,084.45	100.00%

Route: Madison Meadows Park
 Section: Lombard Meadows Phase 1
 County: DuPage
 Job No.:

**Manhour Breakdown
 Topographic Survey Estimate**

Madison Meadows Park $\pm 700' = \pm 0.133 \text{ mile}$

Total Length $\pm 700' = \pm 0.133 \text{ mile}$

1. Field – Topographic Survey

a. Measure traverse & level circuit		
4 hours x 2 men =		8 MH
b. Locate existing R.O.W. & property line occupation		
8 hours x 2 men =		16 MH
c. Locate existing topography		
12 hours x 2 men =		<u>24 MH</u>
Sub-total Item #1		48 MH

2. Office - Compile Field Data

a. Compute traverse & level circuit		
2 hours x 1 man =		2 MH
b. Research records		
4 hours x 1 man =		4 MH
c. Compute existing R.O.W. & property lines		
6 hours x 1 man =		6 MH
d. Edit & compile topographic survey		
3 hours x 1 man =		<u>3 MH</u>
Sub-total Item #2		15 MH

3. Office - Create Topography Base Sheets & Plat of Easement		
a. Layout and drafting existing topography		
10 hours x 1 man =		10 MH
b. Check topographic survey		
2 hours x 1 man =		2 MH
c. Layout and drafting plat of easement		
6 hours x 1 man =		6 MH
d. Check plat of easement		
2 hours x 1 man =		2 MH
e. Write & check legal description proposed easement		
2 hours x 1 man =		<u>2 MH</u>
	Sub-total Item #3	22 MH
4. Office - Create T.I.N. & Contours		
a. Compute contours		
2 hours x 1 man =		2 MH
b. Check contours		
1 hour x 1 man =		<u>1 MH</u>
	Sub-total Item #4	3 MH
5. Coordination Meetings		
1 meeting @ 2 hours =		<u>2 MH</u>
	Total All Items	90 MH

Route: Madison Meadows Park
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1. Field – Topography Survey	Survey Party Chief, S.I.T. Instrument Operator	24 24
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	6 9
3. Office – Create Topography Base Sheets & Plat of Easement	Supervisor, P.L.S. Cadd Supervisor	6 16
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	1 2
5. Coordination Meetings	Principal/Officer	2

Route: Madison Meadows Park
Section: Lombard Meadows Phase 1
County: DuPage
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 3 ea.
 ± 100 miles/trip x 3 trips = ± 300 miles
 ± 300 miles @ \$0.55/mile = \$ 165.00

2. Office - Compile Field Data

a. Trips to County Recorder - 1 ea.
 ± 100 miles/trip x 1 trip = ± 100 miles
 ± 100 miles @ \$0.55/mile = \$ 55.00

b. Miscellaneous Subdivisions = \$ 10.00

Sub-total Item #2 \$ 65.00

5. Coordination Meetings

a. Meetings at Civiltech's office - 1 ea.
 ± 70 miles/trip x 1 trip = ± 70 miles
 ± 70 miles @ \$0.55/mile = \$ 38.50

Total All Items \$ 268.50