

RESOLUTION R-69-13

A RESOLUTION AUTHORIZING THE EXECUTION OF
A PROFESSIONAL ENGINEERING SERVICES AGREEMENT FOR
THE BRIARCLIFFE LAKES FLOOD STUDY

WHEREAS, the City of Wheaton, DuPage County, Illinois is desirous of performing a stormwater management study of the Briarcliffe Lakes stormwater drainage system; and

WHEREAS, the City has received a professional engineering services proposal from Christopher B. Burke Engineering, Ltd. of Rosemont, Illinois for professional engineering services for the Briarcliffe Lakes Flood Study; and

WHEREAS, it is necessary for the City and Christopher B. Burke Engineering, Ltd. to enter into a contract for the engineering services as outlined in a proposal dated August 21, 2013.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Wheaton, Illinois that the Mayor is authorized to execute a professional engineering services agreement with Christopher B. Burke Engineering, Ltd. of Rosemont, Illinois for engineering services associated with the Briarcliffe Lakes Flood Study.

ADOPTED this 16th day of September, 2013.



Michael J. Gresk
Mayor



Aaron Bennett Hagen
City Clerk

Roll Call Vote

Ayes:	Councilwoman Pacino Sanguinetti Councilman Scalzo Councilman Suess Councilman Prendiville Councilman Rutledge Councilman Saline Mayor Gresk
Nays:	None
Absent:	None

Motion Carried Unanimously

This number must appear on
all invoices and documents.

No. C 36637

**Agreement between the City of Wheaton, Illinois and
Christopher B. Burke Engineering, Ltd. for the
Briarcliffe Lakes Flood Study**

This Agreement is entered into by and between the City of Wheaton, an Illinois municipal corporation ("City"), 303 West Wesley Street, Wheaton, IL 60187, and Christopher B. Burke Engineering, Ltd. ("Consultant"), 9575 West Higgins Road, Suite 600, Rosemont, Illinois 60018.

WITNESSETH:

Whereas, the City has determined that it is strategic to hire a consultant to provide professional engineering services for a stormwater management analysis of the Briarcliffe Lakes drainage system in the City of Wheaton (hereinafter the "Work"); and

Whereas, the City has solicited a Request for Proposal for the Work; and

Whereas, the Service Provider submitted a proposal to the City for the Work, which is attached hereto and incorporated herein as Exhibit A; and

Whereas, the City finds the proposal submitted by the Consultant meets the City's service requirements for the Work.

Now, therefore, for in consideration of their mutual promises, terms, covenants, agreements, and conditions recited in this Agreement, the City and the Consultant hereto do hereby agree as follows:

- 1. *Scope of Services.*** The Recital paragraphs are incorporated herein as substantive terms and conditions of this Agreement and as representing the intent of the Parties. The Consultant shall furnish all labor, materials, and equipment to provide and perform the Work. The Consultant represents and warrants that it shall perform the Work in a manner consistent with the level of care and skill customarily exercised by other professional Consultants under similar circumstances.
- 2. *Compensation.*** The City shall compensate the Consultant according to the terms of the Consultant's proposal which is attached hereto as Exhibit A.
- 3. *Term of Agreement:*** This Agreement shall become effective upon the latter of the date accepted and signed by the City and the date accepted and signed by the Contractor. It shall be in effect for three (3) years from the date of signature and shall be subject for renewal if Service Provider maintains or reduces costs.
- 4. *Additional Services.*** The Consultant shall provide only the Work specified in this Agreement and attached Exhibits. In the event the Consultant or the City determines that additional goods and/or services are required to complete the Work, such additional goods shall not be provided and/or such additional services shall not be performed unless authorized in writing by the City. Terms, frequency, and prices for additional services shall be as mutually agreed upon in writing by the City and the Consultant.

5. **Other Entity Use.** The Contractor may, upon mutual agreement, permit any municipality or other governmental agency to participate in the contract under the same prices and terms and conditions, if agreed to by both the Contractor and the other municipality or governmental agency.
6. **Hold Harmless and Indemnification.** The Consultant shall defend, hold harmless, and indemnify the City, its directors, officers, employees, agents, and elected officials, in whole or in part from and against any and all liabilities, losses, claims, demands, damages, fines, penalties, costs, and expenses, including, but not limited to, reasonable attorneys' fees and costs of litigation, and all causes of action of any kind or character, except as otherwise provided herein, to the extent that such matter arises from either of the following:
 - a) The Consultant's breach of any term, provision, warranty, standard or requirement of this Agreement including, but not limited to, those provisions of this Agreement pertaining to the Consultant's services; or
 - b) The negligence or willful misconduct of the Consultant, its employees, agents, representatives, and subcontractors.

In the event that any claim for indemnification hereunder arises from the negligence or willful misconduct of both the Consultant and the City, the parties agree that any and all liabilities, losses, claims, demands, damages, fines, penalties, costs, and expenses shall be apportioned between the parties on the basis of their comparative degrees of fault, except as otherwise herein provided.

7. **Insurance.** The Consultant and each of its agents, subcontractors, and consultants hired to perform the Work shall purchase and maintain during the term of this contract insurance coverage which will satisfactorily insure the Consultant and, where appropriate, the City against claims and liabilities which may arise out of the Work. Such insurance shall be issued by companies authorized to do business in the State of Illinois and approved by the City. The insurance coverages shall include, but not necessarily be limited to, the following:
 - a) Worker's compensation insurance with limits as required by the applicable statutes of the State of Illinois. The employer's liability coverage under the worker's compensation policy shall have limits of not less than FIVE HUNDRED THOUSAND DOLLARS (\$500,000.00) each accident/injury and FIVE HUNDRED THOUSAND DOLLARS (\$500,000.00) each employee/disease.
 - b) Commercial general liability insurance protecting the Consultant against any and all public liability claims which may arise in the course of performance of this contract. The limits of liability shall be not less than ONE MILLION DOLLARS (\$1,000,000.00) each occurrence bodily injury/property damage combined single limit and ONE MILLION DOLLARS (\$1,000,000.00) aggregate bodily injury/property damage combined single limit. The policy of commercial liability insurance shall include contractual liability coverage and an endorsement naming the City as an additional insured.
 - c) Commercial automobile liability insurance covering the Consultant's owned, non-owned, and leased vehicles which protects the Consultant against automobile liability claims whether on or off of the City's premises with coverage limits of not less than ONE MILLION DOLLARS (\$1,000,000.00) per accident bodily injury/property damage combined single limit.
 - d) Professional liability insurance with limits of not less than ONE MILLION DOLLARS (\$1,000,000.00) per claim covering the Consultant against all sums which the Consultant may become obligated to pay on account of any liability arising out of the performance of the professional services for the City under this contract when caused by any negligence act, error, or omission of the Consultant or of any person employed by the Consultant or any others for

whose actions the Consultant is legally liable. The professional liability insurance shall remain in force for a period for not less than four (4) years after the completion of the services to be performed by the Consultant under this contract.

8. ***Compliance with Laws.*** The Consultant shall comply with all applicable federal, state, and local laws, rules, and regulations, and all City ordinances, rules and regulations now in force or hereafter enacted, in the provision of the goods and/or performance of the services required under this Agreement.
9. ***Freedom of Information Act:*** The Contractor shall, within twenty four hours of the City's request, provide any documents in the Contractor's possession related to the contract which the City is required to disclose to a requester under the Illinois Freedom of Information Act. This provision is a material covenant of this Agreement.
10. ***Termination of Contract.*** If the Consultant fails to perform according to the terms of this Agreement, then the City may terminate this Agreement upon seven (7) days written notice to the Consultant. In the event of a termination, the City shall pay the Consultant for services performed as of the effective date of termination, less any sums attributable, directly or indirectly, to Consultant's breach. The written notice required under this paragraph shall be either (i) served personally during regular business hours; (ii) served by facsimile data transmission during regular business hours; or (iii) served by certified or registered mail, return receipt requested, addressed to the address listed in this Agreement with postage prepaid and deposited in the United States mail. Notice served personally and by facsimile data transmission shall be effective upon receipt, and notice served by United States mail shall be effective three (3) business days after mailing.
11. ***Cancellation for Unappropriated Funds:*** The obligation of the City for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.
12. ***Default.*** In case of default by the contractor, the City will procure articles or service from other sources and hold the contractor responsible for any excess cost incurred as provided for in Article 2 of the Uniform Commercial Code. The City reserves the right to cancel the whole or any part of the contract if the contractor fails to perform any of the provisions in the contract, fails to make delivery within the time stated, becomes insolvent, suspends any of its operations, or if any petition is filed or proceeding commenced by or against the Seller under any State or Federal law relating to bankruptcy arrangement, reorganization, receivership, or assignment for the benefit of creditors. The contractor will not be liable to perform if situations arise by reason of strikes, acts of God or the public enemy, acts of the City, fires or floods.
13. ***Patents:*** The successful contractor agrees to protect, defend, and save the City harmless against any demand for payment for the use of any patented material process, article, or device that may enter into the manufacture and construction, or copywrited material that form a part of the Work covered by the contract.
14. ***Discrimination Prohibited.*** The Consultant shall comply with the provisions of the Illinois Human Rights Act, as amended, 775 ILCS 5/1-101 et seq. (1992 State Bar Edition), and with all rules and regulations established by the Department of Human Rights. The Consultant agrees that it will *not deny employment to* any person or refuse to enter into any contract for services provided for in this Agreement to be performed on its behalf on the basis of unlawful discrimination as defined in the Illinois Human Rights Act.
15. ***Status of Independent Consultant.*** Both City and Consultant agree that Consultant will act as an Independent Consultant in the performance of the Work. Accordingly, the Independent Consultant shall be responsible for payment all taxes including federal, state, and local taxes arising out of the Consultant's activities in accordance with this agreement, including by way of illustration but not limitation, federal and state income tax, social security tax, and any other taxes or license fees as may be required under the law.

Consultant further acknowledges under the terms of this Agreement, that it is not an agent, employee, or servant for the City for any purpose, and that it shall not hold itself out as an agent, employee, or servant of the City under any circumstance for any reason. Consultant is not in any way authorized to make any contract, agreement, or promise on behalf of City, or to create any implied obligation on behalf of City, and Consultant specifically agrees that it shall not do so. City shall have no obligation to provide any compensation or benefits to Consultant, except those specifically identified in this Agreement. City shall not have the authority to control the method or manner by which Consultant complies with the terms of this Agreement.

16. Assignment; Successors and Assigns. Neither this Agreement, nor any part, rights nor interests hereof, may be assigned, to any other person, firm or corporation without the written consent of all other parties. Upon approval of assignment, this Agreement and the rights, interests and obligations hereunder shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns.

17. Recovery of Costs. In the event the City is required to file any action, whether legal or equitable, to enforce any provision of this Agreement, the City shall be entitled to recover all costs and expenses incurred as a result of the action or proceeding, including expert witness and attorney's fees, if so provided in any order of the Court.

18. Waivers of Lien: The City reserves the right to require waivers of lien before payment where the City deems it to be in its best interest to do so.

19. Waiver. Any failure of either the City or the Consultant to strictly enforce any term, right, or condition of this Agreement shall not be construed as a waiver of such term, right, or condition.

20. Notification. All notification under this Agreement shall be made as follows:

If to the Consultant:	If to the City:
Christopher B. Burke Engineering, Ltd.	City of Wheaton
Attn: Christopher B. Burke, Pres.	Attn: City Clerk
9575 West Higgins Road, Suite 600	303 W. Wesley Street, Box 727
Rosemont, IL 60018	Wheaton, IL 60189-727

21. Integration. The provisions set forth in this Agreement represent the entire agreement between the parties and supersede all prior agreements, contracts, promises, and representations, as it is the intent of the parties to provide for a complete integration within the terms of this Agreement. This Agreement may be modified only by a further written agreement between the parties, and no modification shall be effective unless properly approved and signed by each party. No course of conduct before, or during the performance of this Agreement, shall be deemed to modify, change or amend this Agreement.

22. Non-disclosure. During the course of the Work s, Consultant may have access to proprietary and confidential information including, but not limited to, methods, processes, formulae, compositions, systems, techniques, computer programs, databases, research projects, resident name and address information, financial data, and other data. Consultant shall not use such information for any purpose other than described in this Agreement and Exhibits and shall not directly or indirectly disclose or disseminate such information to any third party without the express written consent of the City.

23. Severability. If any provision of this Contract is held to be illegal, invalid, or unenforceable, such provision shall be fully severable, and this Contract shall be construed and enforced as if such illegal, invalid, or unenforceable provision were never a part hereof; the remaining provisions hereof shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provision or by its severance; and in lieu of such illegal, invalid, or unenforceable provision there shall be added automatically as part of

this agreement, a provision as similar in its terms to such illegal, invalid, or unenforceable provision as may be possible and legal, valid and enforceable.

24. Force Majeure. No party hereto shall be deemed to be in default or to have breached any provision of this Agreement as a result of any delay, failure in performance or interruption of services resulting directly or indirectly from acts of God, acts of civil or military disturbance, or war, which are beyond the control of such non-performing party.

25. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Illinois, without giving effect to its conflict-of-laws rules. Exclusive jurisdiction for any litigation involving any aspect of this Agreement shall be in the Eighteenth Judicial Circuit Court, DuPage County, Illinois.

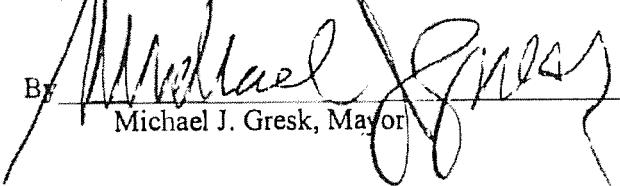
26. Validity. In the event that any provision of this Agreement shall be held to be invalid or unenforceable, the same shall not affect in any respect whatsoever the validity or enforceability of the remainder of this Agreement.

In Witness Whereof, the parties have entered into this 16th day of September, 2013.

City of Wheaton, an Illinois municipal corporation

By

Michael J. Gresk, Mayor



Attest:


Sharon Barrett-Hagen, City Clerk

Christopher B. Burke Engineering, Ltd.

By


Christopher B. Burke, President

Attest:



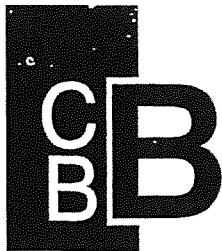


EXHIBIT A

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX(847) 823-0520

August 21, 2013

City of Wheaton
Engineering Department
303 W. Wesley Street, Box 727
Wheaton, IL 60189-0727

Attention: Mr. Paul G. Redman, PE
Director of Engineering

Subject: **Proposal for Professional Engineering Services
Briarcliffe Lakes System Flood Study – Alternative Analysis
Evaluation and Briarcliffe Lake No. 4 Dam Safety Permit Application**

Dear Mr. Redman:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal to provide water resources, conceptual preliminary engineering, and permitting services for the Briarcliffe Lakes System flood study located within the City of Wheaton (City), DuPage County, Illinois. These services have been deemed necessary by the City staff as a result of the April 2013 flood, one-on-one meetings with the affected property owners, and a May 10, 2013 Illinois Department of Natural Resources – Office of Water Resources (IDNR-OWR) letter to the Briarcliff Lakes Homeowners Association (BLHA) requiring a dam safety permit for Lake No.4. The work described in this proposal includes, field survey of portions of the key stormwater elements of the system, hydrologic and hydraulic modeling of the watershed with emphasis on areas targeted by City staff for detailed analysis, an alternative analysis for the flood prone areas selected by the City, developing conceptual cost estimates for the identified alternatives, and responding to the May 10 IDNR-OWR letter. Included in this proposal are our Understanding of Assignment, Scope of Services, Estimate of Fee, and Terms & Conditions.

UNDERSTANDING OF ASSIGNMENT

The City of Wheaton was significantly affected by flooding during the April 17-18, 2013 storm event. Various areas of the City were impacted such that basements and first floors were flooded. One of the areas affected was the Briarcliffe Lakes System. This watershed is part of the headwaters of East Branch Tributary No.5, which is part of the East Branch DuPage River watershed, and this tributary drains into the Danada Forest

Preserve Rice Lake located south of Butterfield Road. The general limits of the study area are Roosevelt Road to the north, Naperville Road to the west, Butterfield Road to the south, and Lambert Road to the east. Within these limits and watershed, the following flooding was observed by City staff:

- Street flooding between Lake No.1 (the use of "Briarcliffe" prior to "Lake" is omitted for brevity, and any "lakes" in this proposal refer to the Briarcliffe Lake System) and Lake No.2
- Street flooding between Lake No.2 and Lake No.3
- Overland flow between Lake No.3 and Lake No.4
- Briarcliffe Lake No. 4 overtopping and downstream structures flooding
- Street flooding along the overland flow route or the storm sewer route downstream of Lake No.4

CBBEL understands that the City's primary focus of this study is to identify alternatives that can help alleviate this flooding. The study area contains Zone A floodplain over Lakes No.3 and No.4, two isolated street flooding areas along the overflow route of Lake No.4, and also the downstream open-channel, as depicted in the Flood Insurance Rate Map (FIRM) for DuPage County, Illinois and Incorporated Areas, Panel 506 of 1006, effective date December 16, 2004; however, Panel 505 shows no floodplain associated with Lake A and Lakes No.1 and No.2. Lake No.4 is owned by BLHA, and it should be noted that Lake No.4 is hydraulically connected to the adjacent wetland area to the east, which is in College of DuPage (COD) property, but in the Village of Glen Ellyn. The May 10, 2013 letter from IDNR-OWR to BLHA is requiring a dam safety permit for Lake No.4. The City is considering providing technical assistance to BLHA in responding to this letter. However, based on preliminary observations during a site visit, CBBEL believes that the IDNR-OWR dam classification should extend to the COD property also, and that it is likely that IDNR-OWR did not realize that the berm straddles two properties. Prior to initiating any response to IDNR-OWR, this clarification should be made so that a proper division of responsibilities and costs can be planned for the response to IDNR-OWR.

For purposes of this proposal, we have divided the anticipated work into separate components (each component consisting of separate tasks), which build upon the main goal of the alternative analysis for the Briarcliffe Lake System, or upon other tasks as noted.

Component 1 – Alternative Analysis for the Briarcliffe Lake System

The headwaters of this watershed was studied separately by V3 on behalf of the City in 2012. If made available to CBBEL, the V3 model can be incorporated into the CBBEL model to take advantage of the work already performed, which we assume will provide an already calibrated inflow hydrograph to Lake A. Given the lakes are on-line and in series, it is unknown whether the 5 lakes function optimally as a system during significant storm events. There are no as-built drawings for any of the lakes. Lake No.4 field surveying will require access to the east wetland system. The field survey will include grades down to the normal water line and the outlet structure's key dimensions and elevations. Lake A has a pump station for an underdrain system so that the lake can provide recreational ball fields during dry periods, but Lake A drains by gravity to the

bottom and the other lakes drain only by gravity to open water bottoms. The inter-connecting storm sewer systems between lakes and the key overtopping overland flow cross sections between significant ponding pockets will need to be field surveyed. However, the storm sewer system upstream of Lake A is critical to how the lake functions. Therefore, this storm sewer will also need to be surveyed to route the XP-SWMM hydrograph, from the V3 study for the area north of Roosevelt Road, through the intervening area, which should better approximate the inflow hydrograph to the lake. The field survey will extend along Coolidge Street up to President Street, and then north along President Street to Roosevelt Road. Furthermore, as discussed with City staff, Briar Knoll Park drains west (away from the watershed) but there is inter-basin storm sewer flow into the Briarcliff Lakes System watershed. As part of this component, this area will not be field surveyed and would only include the storm sewers with elevation information from the City.

Since the project area is served by storm sewers, we have chosen the XP-SWMM model to perform the flow computation and sub-surface infrastructure and surface modeling for this study. The hydrologic input to XP-SWMM will use NRCS methods. The XP-SWMM model has yielded good approximations in other similar areas to the type of results (levels of street ponding due to storm sewer surcharge and swale flooding) that we believe are needed for this analysis. The program can explicitly model storm sewer systems and represent well the behavior of and proposed changes to the system for all frequency events.

The primary goal of this component would be to determine if the lakes are filling optimally during storm events, and what, if any, modifications to the outlet structures or grading can be made to improve its functioning.

Component 2 – Briarcliff Lake No.4 Dam Safety Permit

According to the May 10, 2013 IDNR-OWR letter, Lake No.4 has been classified as "a Class I (high) hazard potential structure and requires a dam safety permit." The five requirements listed in the letter are:

1. Permit application
2. Current inspection
3. Operation and Maintenance Plan (O&M)
4. Financial responsibility statement
5. Right of access statement

Though not listed, a dam breach analysis is anticipated to assist in identifying the homes that must be included in the notifications flowchart in the Emergency Action Plan (EAP), which is part of the O&M Plan. The anticipated work associated with this component will include a dam inspection by structural and water resources engineers, signed statements made by the owner, preparation of the O&M/EAP Plans, and sufficient hydrologic and hydraulic modeling to perform a dam breach analysis. Field survey will be necessary to develop as-built drawings for the lake, and to model the principal and emergency spillways of the dam and the overland flow route. Since under Component 1 much of the modeling framework will have been developed, the possible refinements

under this component may include the as-built survey of the COD wetland, and under this component it is assumed that the BLHA, COD, and the City are working cooperatively to respond to the IDNR-OWR letter).

The modeling for this task will be performed using the XP-SWMM model developed under Component 1, and a newly developed HEC-RAS model. Because the XP-SWMM model does not perform dam breach wave analysis, the hydrographs from XP-SWMM will be read into HEC-RAS to perform this dam breach analysis.

The primary goal of this component would be to respond to the May 10, 2013 IDNR-OWR letter.

SCOPE OF SERVICES

To assist the City with the above-described effort, CBBEL prepared the scope of services described below, which has been divided into two phases to match the two components above.

PHASE 1 – ALTERNATIVE ANALYSIS FOR THE LAKE SYSTEM

Task 1 – Data Collection and Review: CBBEL will review the background information for the watershed. The background information being that will be reviewed will include:

- Previous drainage studies completed for the City
- City storm sewer atlas
- City sewer atlas
- As-built/Permitted plans
- High water marks from the April 18, 2013 storm event
- DuPage County topography
- City's GIS database

Task 2 – Site Visit and Initial Problem Inventory: CBBEL staff will visit the flood study area with City staff to field-verify the existing drainage conditions. The site visit will also assist in identifying the specific survey needs that have been approximated in the survey task. This site visit will cover all 5 lakes, and an Environmental Scientist will also visit the areas to determine what wetland/waters issues will need to be considered in an implementation plan. The end result of this task will be a preliminary inventory, which will include:

- a list of the flooding problem areas within the study area;
- general guidelines to follow when developing flood mitigation alternatives that may be specific to this watershed;
- a list of goals to proceed with the watershed analysis.

Task 3 – Field Survey of Lakes A, No.1, No.2, No.3, No.4; Inter-connecting Storm Sewers, and Overland Flow Routes: Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone); CBBEL will establish recoverable primary control.
2. Vertical Control: GPS Observed benchmarks will be established according to NAVD '88 Vertical Datum with vertical correlation to DuPage Co. NGVD '29 Vertical Datum Monuments.
3. Grades, location and elevation of existing hardscape improvements of the lakes located in the project limits including top of bank & overlap, existing water line, and overlap bank slope elevations.
4. Spot overtopping elevations within storm sewer limits between lakes only (the budget reflects the survey of 25 overtopping/overflow cross sections that will occur either along the storm sewer lines to be surveyed or relatively close to other surveyed areas). These key overflow locations could be roadways, in which case, the survey will consist of ground elevations at the roadway centerline, the curb and/or edge of pavement, the parkway area, and one elevation outside the parkway near adjacent residential structures. The exact location will be determined by both City and CBBEL staff as established during the field visit.
5. Location and elevation of selected storm sewer (60-70 total estimated structures), with rim and invert elevations along storm sewer limits between lakes only – sewer and overland flow path are along different paths. The lake outlet structure will also be fully detailed/identified within this scope of work.
6. Cross sections of channel beginning at Windsor Drive cul-de-sac and ending at Butterfield Road, at 200 foot intervals, extending from top of bank to top of bank with a twenty five foot ground shot overlap.
7. This work is not included: additional utilities including, but not limited to: water, sanitary sewer, telephone, electric, cable and gas, etc.; identifying tree line location or individual trees; low entry elevations of adjacent structures/homes (low-entry surveys will be performed under a separate task).
8. Office calculations and plotting of field and record data.
9. Draft an Existing Conditions Plan at a scale of 1"=20'.

Each lake and interconnecting storm sewer system will be budgeted separately; however, the topographic survey budget has been estimated with the understanding that all the field survey under this phase will be performed as one coherent group. Isolation and/or elimination of individual items will affect budget estimates.

Task 4 – Field Survey of Low-entry Elevations: Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone); CBBEL will establish recoverable primary control.
2. Vertical Control: GPS Observed benchmarks will be established according to NAVD '88 Vertical Datum with vertical correlation to DuPage Co. NGVD '29 Vertical Datum Monuments.
3. Spot elevations of potential points for water to enter the structure (e.g., top of window well, walk-out basement door, bottom of window sill, etc.).
4. The number of residential structures to be surveyed is based on an exhibit provided by the City for an area of clustered homes downstream of Lake No.4, and the total number of residential structures will be no more than 50. Additional structures within the same cluster can be surveyed for an out-of-scope/budget amount of \$180 per structure if surveyed at the same time as the other low-entry surveys are being completed.

Task 5 – Existing Conditions Analysis with XP-SWMM: Based on the information compiled in Tasks 1 through 3, CBBEL will develop an XP-SWMM hydrologic and hydraulic model to determine the hydrology and hydraulics for the tributary watershed through Lake No.4, and downstream to the open-channel that begins at the intersection of Cambridge Lane and Windsor Drive. The XP-SWMM model developed by V3 will be included in the CBBEL model. It should be noted that CBBEL staff has observed that the same XP-SWMM model run under a different version of the software can produce different results. Recalibrating the V3 XP-SWMM model, if necessary, is assumed to not be critical to the inflow to Lake A. Therefore, the budget reflects including a previously successfully running XP-SWMM model developed by V3 into the Briarcliffe Lakes System model, but not recalibrating it. The 48 to 54-inch storm sewer between Lake A and Roosevelt Road will be surveyed, and only this line will be included in the model with the connecting sewers modeled as tributary area to this line. The available storm sewer atlases and permitted plans will be used to simulate the inter-connecting storm sewer system where field survey is not performed. Outside the on-line lakes system and the storm sewer upstream of Lake A as discussed above, the remaining watershed will be modeled as tributary area to one of the lakes. The outlet spillways for Lake No.4 will require detailed modeling for the dam breach and it is deemed appropriate to include it under this task, and the field survey of Lake No.4 will be used.

The April 18, 2013 storm event will be simulated using measured rainfall data and the models will be calibrated to the high water marks observed during that storm event. The July 2010 and September 2008 storm events will also be included in the simulation and compared to any high water level data compiled by the City, or surveyed by CBBEL under Task 3 if a mark is provided by the City. Design storm events then will be simulated using the calibrated model to determine the existing level of flood protection,

to quantify the number of homes that are affected during various flood frequencies, and to determine if the existing ponds meet the original design criteria (if provided by the City).

Task 6 – Alternative Analysis with XP-SWMM: Based on the existing conditions models developed in Task 5, and the site visit, CBBEL will identify stormwater management needs, which will include:

- improved conveyance;
- additional stormwater storage;
- number of building structures flooded (if data is available from the City);

A memorandum will be prepared identifying the initial flooded locations (from the site visit memorandum), and describe the existing flooded areas where known and/or reflected by the models. Flood reduction concepts will be developed based on the criteria established by the City. The proposed stormwater improvement alternative concepts will be selected based on CBBEL's experience with proven techniques used in other successful projects, and City recommendations. Quantitative analysis, including modeling, will be limited to those alternatives that can be judged to meet established criteria. Overland flow routes may need to be established or reestablished, and conveyance improvements may be beneficial in reducing flooding and/or better utilizing established flood storage. Based on the City's review of this alternatives concepts memorandum, the City will select up to eight total alternatives to simulate with the XP-SWMM model (an alternative is considered a proposed improvement concept at one flood prone location). The modeling under this task will simulate these alternative drainage improvements to optimize the functioning of the lake system, determine what frequency of flood protection can reasonably be achieved, and determine if it is feasible to achieve a 100-year level of flood protection for the lake system. Using the information collected in the above tasks, CBBEL will analyze the feasibility and effectiveness of the City's recommendations for each of the flooding problem areas, and where appropriate, identify refinements. The alternative drainage improvements will involve the creation/utilization of flood storage on open parcels adjacent to the study areas (if available), and determining if overflow routes can be changed.

Task 7 – Conceptual Schematics and Preliminary Cost Estimates: CBBEL will prepare concept-level schematics of the proposed alternatives that were found to meet established criteria and modeled in Task 6. An engineer's estimate of probable construction cost will be prepared for each proposed alternative. The preliminary cost estimates will include the design, permitting, and construction costs of each project.

Task 8 – Report: The results of the analysis will be summarized in a report. Based on the results of the study, a recommended plan will be presented to the City staff for comment. The study will be summarized in a detailed report that will include an executive summary, a description of the analysis, established criteria, alternative analysis, recommended plan, project benefits, and any special features. The report will contain a section describing an implementation plan which will consist of project costs, benefits, time frame to implement, and impact to the neighborhood. Any known

permitting requirements from regulatory agencies for the recommended plan will also be detailed in the report.

Task 9 – Project Coordination Meetings for Phase 1: Meetings and project coordination will be necessary during the analysis process. The estimated fee reflects costs for:

- 3 coordination meetings with City staff
- 2 coordination meetings with City staff, and BLHA and COD property owners
- Project management and coordination

The meetings in this task are separate from any meetings described under other tasks.

Task 10 – City Council Presentation: CBBEL staff will attend and present our findings at a City Council meeting. CBBEL will create a Microsoft PowerPoint Presentation that details our findings and recommendations from the analysis. The presentation will include a discussion on the projects that were evaluated, those that are recommended, and give an overview of the type of construction methods that these will entail. We have budgeted CBBEL staff time for one presentation.

PHASE 2 – BRIARCLIFFE LAKE NO.4 IDNR-OWR DAM SAFETY PERMIT

Task 11 – Dam Inspection and Report: In accordance with the IDNR-OWR criteria, a dam inspection of the Lake No.4 Dam will be completed. IDNR-OWR dam inspection forms will be prepared. The inspection and paperwork will be completed by two CBBEL staff members: one from our Structural Department and one from our Water Resources Department who is familiar with IDNR-OWR Dam Safety requirements. The dam inspection form will indicate any deficiencies and the necessary remedial measures needed to rectify. The dam inspection forms will be submitted to the City for review and discussion. This task does not include the preparation of engineering plans for the recommended remedial measures, if any. The signed and sealed dam inspection forms will be submitted to IDNR-OWR as part of the O&M permit application. If a geotechnical consultant is found necessary for this task, we understand that the City has a geotechnical consultant under contract to assist with this task.

Task 12 – Field Survey of COD Wetland: Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone); CBBEL will establish recoverable primary control.
2. Vertical Control: GPS Observed benchmarks will be established according to NAVD '88 Vertical Datum with vertical correlation to DuPage Co. NGVD '29 Vertical Datum Monuments.

3. Grades, location and elevation of existing hardscape improvements of the COD wetland located in the project limits including top of bank & overlap, existing water line, and overlap bank slope elevations.
4. This work is not included: additional utilities including, but not limited to: water, sanitary sewer, telephone, electric, cable and gas, etc.; identifying tree line location or individual trees; low-entry elevations of adjacent structures/homes (low-entry surveys will be performed under a separate task).
5. Office calculations and plotting of field and record data.
6. Draft an Existing Conditions Plan at a scale of 1"=20'.

Task 13 – Dam Breach Analysis: The XP-SWMM hydrologic/hydraulic models of the Briarcliffe Lake System watershed developed in the above tasks will be used for this analysis. For this task, a HEC-RAS hydraulic model will be developed to simulate the dam breach wave downstream of the Lake No.4 dam. This model is accepted by IDNR-OWR for this specific task, and has the capability to simulate a dam breach scenario. Because this is an existing dam which was constructed prior to September 1980, the dam breach analysis will be performed using a 0.3 Probable Maximum Flood (PMF), and the dam breach flood wave elevations will be delineated to show the extent of flooding due to dam breach.

Task 14 – IDNR-OWR Dam Safety Permit Application: An IDNR-OWR dam safety permit application will be prepared for the Briarcliffe Lake No.4 Dam. The dam safety permit application submittal will include the following items:

- A completed application for permit.
- A location map and an aerial photograph showing the location of the dam and surrounding area.
- Generally construction plans and documents for the dam and all appurtenant structures that are sealed, signed, and dated by an engineer are required. However, we understand that these are not available and therefore, Task 3 will develop as-built drawings to satisfy this requirement.
- Structural/Geotechnical Submittal (not required by the May 10 letter) – We have assumed that because this is an existing dam and no modification is being proposed (unless deficiencies are found), that a structural/geotechnical submittal will not be required. However, should this analysis be required by IDNR-OWR during their review process or because correction of deficiencies was found necessary after the dam inspection, we understand that the City has a geotechnical consultant under contract to complete this analysis.

- Summary of Lake No.4 data, and supporting documents – This will be obtained from the original plans (information to be provided by the City if available).
- Wave Runup/Wind Setup Freeboard Calculations (not required) – We have assumed that because this is an existing dam and no modifications are being proposed, that this calculation is not required.
- Dewatering Calculations (not required) – We have assumed that because this is an existing dam and no modifications are being proposed, that this calculation is not required.
- Dam Breach Analysis - We have assumed that this will be required to define the breach wave impacts. This modeling will be performed under a separate task.
- Operation and Maintenance Plan – This will be prepared based on our experience with other Class I dams, and existing documents available from the City.
- Emergency Action Plan – This will be prepared in coordination with both City staff and the BLHA, as notification to downstream properties is necessary.
- A statement by the owner indicating that the owner has adequate financial resources to maintain and operate the dam – CBBEL will prepare a letter to be signed by the owner.
- A statement by the owner agreeing to provide as-built plans and specifications upon completion of any changes to the dam – CBBEL will prepare a letter to be signed by the owner.
- A statement by the owner granting the State the right of access to inspect the dam site and immediate vicinity before, during and after construction and for the life of the dam and appurtenances – CBBEL will prepare a letter to be signed by the owner.
- Names and Addresses of property owners located downstream of the dam – the properties will be identified by CBBEL based on the dam breach wave impacts. This will be provided to the City and BLHA for identifying the names and addresses.

Task 15 – Project Coordination Meetings/Agency Coordination for Phase 2: Meetings will be necessary during the analysis and permit preparation process, and additional information will be required to supplement the permit application submittals. CBBEL will meet with City staff as necessary. The estimated fee reflects costs for:

- 1 coordination meetings with City staff
- 1 coordination meetings with City staff, and BLHA and COD property owners

- 1st response to IDNR-OWR comments
- 2nd response to IDNR-OWR comments
- Project management and coordination

The meetings in this task are separate from any meetings described under other tasks.

ESTIMATE OF FEE

In the table below we have summarized our estimate for providing the previously described services.

PHASE	TASK	DESCRIPTION	ESTIMATED COST
1		PHASE 1 – ALTERNATIVE ANALYSIS FOR THE LAKE SYSTEM	
	1	Data Collection and Review	\$ 2,300
	2	Site Visit and Initial Problem Inventory	5,000
	3	Field Survey of Lakes A, No.1, No.2, No.3, No.4; Inter-connecting Storm Sewers, and Overland Flow Routes	
	3a	Lake A	3,200
	3b	Lake No.1	4,500
	3c	Lake No.2	4,500
	3d	Lake No.3	4,500
	3e	Lake No.4	4,500
	3c	Storm sewer/overflow cross sections	12,700
	3d	Open-channel cross sections	4,000
	3f	GIS processing	2,000
	4	Field Survey of low-entry elevations (up to 50 structures)	8,900
	5	Existing Conditions Analysis with XP- SWMM	21,000
	6	Alternative Analysis with XP-SWMM	34,000
	7	Conceptual Schematics and Preliminary Cost Estimates	11,600
	8	Report	9,000
	9	Project Coordination Meetings for Phase 1	7,500
	10	City Council Presentation	5,000
		Subtotal Phase 1	144,200
2		PHASE 2 – BRIARCLIFFE LAKE NO.4 IDNR-OWR DAM SAFETY PERMIT	
	11	Field Survey of COD Wetland	5,000
	12	Dam Inspection and Report	3,000
	13	Dam Breach Analysis	6,700
	14	IDNR-OWR Dam Safety Permit Application	8,800
	15	Project Coordination Meetings/Agency Coordination for Phase 2	7,200
		Subtotal Phase 2	30,700
		Subtotal ALL TASKS	174,900
		Review Fees (charged by agencies - allowance)	5,000
		Direct Costs	7,500
		TOTAL	\$187,400

Assumptions

The following assumptions have been made to estimate the budget for the proposed scope of work:

1. No geotechnical investigation has been included. We are assuming that the City will retain a consultant to perform any necessary geotechnical tasks.
2. All review fees will be paid by the City – IDNR-OWR will be instituting review fees in the future. These fees are estimated in this proposal.
3. DuPage County will not require a permit application for Lake No.4.

SCHEDULE

An anticipated schedule is attached.

TERMS AND CONDITIONS

We will bill you at the hourly rates specified on the attached Schedule of Charges and will establish our contract in accordance with the City's standard engineering services agreement provided to us, both of which are expressly incorporated into and are an integral part of this contract for Professional Engineering Services. The Scope of Services described previously and related Estimated Fee are based on information known to date. It shall be understood that CBBEL shall be allowed the opportunity to adjust the Estimated Fee as additional information about this project is obtained and/or our level of participation increases beyond that for which we have budgeted. Direct costs for blueprints, photocopying, mailing, overnight delivery, messenger services, mileage and report compilation are estimated in the Estimated Fee. It should be emphasized that any engineering services performed for tasks not included in the proposal and/or beyond customary efforts as well as for any additional meetings shall be billed on a time and material basis at the attached hourly rates.

We appreciate the opportunity to submit our proposal, and look forward to assisting you with the Briarcliffe Lake System flood study and the dam safety permit application.

Sincerely,



Christopher B. Burke, PhD, PE, D.WRE, Dist.M. ASCE
President

Encl.: 2013 Schedule of Charges
Estimated Timeline

CITY OF WHEATON - BRIARCLIFFE LAKES ALTERNATIVES ANALYSIS PROJECT
ESTIMATED TIMELINE

Task	Description	DATES			2013			2014					
		START	DURATION	END	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	Data Collection and Review	10/7/2013	2 weeks	10/17/2013									
2	Site Visit and Initial Problem Inventory	10/18/2013	1 week	10/25/2013									
3	Field Survey of Lakes A, 1, 2, 3, 4, Storm sewers and Overland Flow Paths	10/28/2013	7 weeks	12/16/2013									
4	Field Survey of Low-Entry Elevations	12/16/2013	2 weeks	12/27/2013									
5	Existing Conditions XPS-SWMM Analysis	11/25/2013	8 weeks	12/07/2014									
	City Review of Existing Conditions XPS-SWMM Analysis	12/07/2014	2 weeks	1/3/2015									
6	Alternative Analysis XPS-SWMM Analysis	2/3/2014	8 weeks	3/1/2014									
	City Review of Alternative Analysis XPS-SWMM Analysis	3/3/2014	2 weeks	4/1/2014									
7	Conceptual Schematics and Preliminary Cost Estimates	4/14/2014	2 weeks	4/25/2014									
8	Report	4/28/2014	2-1 weeks	5/5/2014									
	City Review of Report	5/12/2014	2 weeks	5/23/2014									
9	Project Coordination and Meetings for Phase 1	10/7/2013		6/9/2014									
10	City Council Presentation	6/9/2014	0									X (6/9)	
11	Dam Inspection and Report	10/2/2013	2 weeks	11/1/2013									
12	Field Survey of COO Wetland	12/16/2013	1 week	1/2/2014									
13	Dam Breach Analysis	1/20/2014	1 week	1/24/2014									
14	IDNR-OWR Dam Safety Permit Application	1/27/2014	3 weeks	2/14/2014									
	City/BLHA Review of O&M/EAP and Dam Safety Permit Application	2/17/2014	2 weeks	2/28/2014									
	IDNR-OWR Review of Dam Safety Permit Application	3/3/2014	30 weeks	11/2/2014									
15	Project Coordination and Meetings for Phase 2	10/7/2013		11/27/2014									

NOTES

- Assumes a notice-to-proceed given by the City to CBREI on October 7, 2013
- Assumes that Phase 2 tasks will be given notice-to-proceed concurrently with Phase 1
- IDNR-OWR Review tasks includes responses to comments, and has an estimated time for review by IDNR-OWR. The review time will depend on IDNR-OWR staff resources and backlog
- Recent review times for Class 3 dams have been longer than 30 weeks, and will include public notification and a public comment period
- The time gaps between Tasks 12 and 13 are due to the need to complete Task 5 before proceeding with Task 13.

- Existing Conditions XPS-SWMM will need to have the survey completed before the modeling can be completed. Therefore, the task assumes some floating time and is not considered a continuous effort

CHRISTOPHER B. BURKE ENGINEERING, LTD.
STANDARD CHARGES FOR PROFESSIONAL SERVICES
JANUARY, 2013

	Charges*
	(\$/Hr)
<u>Personnel</u>	
Principal	240
Engineer VI	210
Engineer V	173
Engineer IV	138
Engineer III	125
Engineer I/II	102
Survey V	178
Survey IV	134
Survey III	130
Survey II	100
Survey I	78
Resource Planner V	112
Resource Planner IV	108
Resource Planner III	100
Resource Planner I/II	88
Engineering Technician V	150
Engineering Technician IV	137
Engineering Technician III	112
Engineering Technician I/II	97
CAD Manager	138
Assistant CAD Manager	126
CAD II	125
CAD I	98
GIS Specialist III	120
GIS Specialist I/II	67
Landscape Architect	138
Environmental Resource Specialist V	160
Environmental Resource Specialist IV	134
Environmental Resource Specialist III	114
Environmental Resource Specialist I/II	94
Environmental Resource Technician	90
Administrative	88
Engineering Intern	53
Survey Intern	53
Information Technician III	100
Information Technician I/II	67

Direct Costs

Outside Copies, Blueprints, Messenger, Delivery Services, Mileage Cost + 12%

*Charges include overhead and profit

Christopher B. Burke Engineering, Ltd. reserves the right to increase these rates and costs by 5% after December 31, 2013.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
GENERAL TERMS AND CONDITIONS

1. Relationship Between Engineer and Client: Christopher B. Burke Engineering, Ltd. (Engineer) shall serve as Client's professional engineer consultant in those phases of the Project to which this Agreement applies. This relationship is that of a buyer and seller of professional services and as such the Engineer is an independent contractor in the performance of this Agreement and it is understood that the parties have not entered into any joint venture or partnership with the other. The Engineer shall not be considered to be the agent of the Client. Nothing contained in this Agreement shall create a contractual relationship with a cause of action in favor of a third party against either the Client or Engineer.

Furthermore, causes of action between the parties to this Agreement pertaining to acts of failures to act shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of substantial completion.

2. Responsibility of the Engineer: Engineer will strive to perform services under this Agreement in accordance with generally accepted and currently recognized engineering practices and principles, and in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, express or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document, or otherwise.

Notwithstanding anything to the contrary which may be contained in this Agreement or any other material incorporated herein by reference, or in any Agreement between the Client and any other party concerning the Project, the Engineer shall not have control or be in charge of and shall not be responsible for the means, methods, techniques, sequences or procedures of construction, or the safety, safety precautions or programs of the Client, the construction contractor, other contractors or subcontractors performing any of the work or providing any of the services on the Project. Nor shall the Engineer be responsible for the acts or omissions of the Client, or for the failure of the Client, any architect, engineer, consultant, contractor or subcontractor to carry out their respective responsibilities in accordance with the Project documents, this Agreement or any other agreement concerning the Project. Any provision which purports to amend this provision shall be without effect unless it contains a reference that the content of this condition is expressly amended for the purposes described in such amendment and is signed by the Engineer.

3. Changes: Client reserves the right by written change order or amendment to make changes in requirements, amount of work, or engineering time schedule adjustments, and Engineer and Client shall negotiate appropriate adjustments acceptable to both parties to accommodate any changes, if commercially possible.
4. Suspension of Services: Client may, at any time, by written order to Engineer (Suspension of Services Order) require Engineer to stop all, or any part, of the services required by this Agreement. Upon receipt of such an order, Engineer shall immediately comply with its terms and take all reasonable steps to minimize the costs associated with the services affected by such order. Client, however, shall pay all costs incurred by the suspension, including all costs necessary to maintain continuity and for the

resumptions of the services upon expiration of the Suspension of Services Order. Engineer will not be obligated to provide the same personnel employed prior to suspension, when the services are resumed, in the event that the period of suspension is greater than thirty (30) days.

5. Termination: This Agreement may be terminated by either party upon thirty (30) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party. This Agreement may be terminated by Client, under the same terms, whenever Client shall determine that termination is in its best interests. Cost of termination, including salaries, overhead and fee, incurred by Engineer either before or after the termination date shall be reimbursed by Client.
6. Documents Delivered to Client: Drawings, specifications, reports, and any other Project Documents prepared by Engineer in connection with any or all of the services furnished hereunder shall be delivered to the Client for the use of the Client. Engineer shall have the right to retain originals of all Project Documents and drawings for its files. Furthermore, it is understood and agreed that the Project Documents such as, but not limited to reports, calculations, drawings, and specifications prepared for the Project, whether in hard copy or machine readable form, are instruments of professional service intended for one-time use in the construction of this Project. These Project Documents are and shall remain the property of the Engineer. The Client may retain copies, including copies stored on magnetic tape or disk, for information and reference in connection with the occupancy and use of the Project.

When and if record drawings are to be provided by the Engineer, Client understands that information used in the preparation of record drawings is provided by others and Engineer is not responsible for accuracy, completeness, nor sufficiency of such information. Client also understands that the level of detail illustrated by record drawings will generally be the same as the level of detail illustrated by the design drawing used for project construction. If additional detail is requested by the Client to be included on the record drawings, then the Client understands and agrees that the Engineer will be due additional compensation for additional services.

It is also understood and agreed that because of the possibility that information and data delivered in machine readable form may be altered, whether inadvertently or otherwise, the Engineer reserves the right to retain the original tapes/disks and to remove from copies provided to the Client all identification reflecting the involvement of the Engineer in their preparation. The Engineer also reserves the right to retain hard copy originals of all Project Documentation delivered to the Client in machine readable form, which originals shall be referred to and shall govern in the event of any inconsistency between the two.

The Client understands that the automated conversion of information and data from the system and format used by the Engineer to an alternate system or format cannot be accomplished without the introduction of inexactitudes, anomalies, and errors. In the event Project Documentation provided to the Client in machine readable form is so converted, the Client agrees to assume all risks associated therewith and, to the fullest

extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising therefrom or in connection therewith.

The Client recognizes that changes or modifications to the Engineer's instruments of professional service introduced by anyone other than the Engineer may result in adverse consequences which the Engineer can neither predict nor control. Therefore, and in consideration of the Engineer's agreement to deliver its instruments of professional service in machine readable form, the Client agrees, to the fullest extent permitted by law, to hold harmless and indemnify the Engineer from and against all claims, liabilities, losses, damages, and costs, including but not limited to attorney's fees, arising out of or in any way connected with the modification, misinterpretation, misuse, or reuse by others of the machine readable information and data provided by the Engineer under this Agreement. The foregoing indemnification applies, without limitation, to any use of the Project Documentation on other projects, for additions to this Project, or for completion of this Project by others, excepting only such use as may be authorized, in writing, by the Engineer.

7. Reuse of Documents: All Project Documents including but not limited to reports, opinions of probable costs, drawings and specifications furnished by Engineer pursuant to this Agreement are intended for use on the Project only. They cannot be used by Client or others on extensions of the Project or any other project. Any reuse, without specific written verification or adaptation by Engineer, shall be at Client's sole risk, and Client shall indemnify and hold harmless Engineer from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom.

The Engineer shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Engineer's promotional and professional materials. The Engineer's materials shall not include the Client's confidential and proprietary information if the Client has previously advised the Engineer in writing of the specific information considered by the Client to be confidential and proprietary.

8. Standard of Practice: The Engineer will strive to conduct services under this agreement in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as of the date of this Agreement.
9. Compliance With Laws: The Engineer will strive to exercise usual and customary professional care in his/her efforts to comply with those laws, codes, ordinance and regulations which are in effect as of the date of this Agreement.

With specific respect to prescribed requirements of the Americans with Disabilities Act of 1990 or certified state or local accessibility regulations (ADA), Client understands ADA is a civil rights legislation and that interpretation of ADA is a legal issue and not a design issue and, accordingly, retention of legal counsel (by Client) for purposes of interpretation is advisable. As such and with respect to ADA, Client agrees to waive any action against Engineer, and to indemnify and defend Engineer against any claim arising from Engineer's alleged failure to meet ADA requirements prescribed.

Further to the law and code compliance, the Client understands that the Engineer will strive to provide designs in accordance with the prevailing Standards of Practice as previously set forth, but that the Engineer does not warrant that any reviewing agency having jurisdiction will not for its own purposes comment, request changes and/or additions to such designs. In the event such design requests are made by a reviewing agency, but which do not exist in the form of a written regulation, ordinance or other similar document as published by the reviewing agency, then such design changes (at substantial variance from the intended design developed by the Engineer), if effected and incorporated into the project documents by the Engineer, shall be considered as Supplementary Task(s) to the Engineer's Scope of Service and compensated for accordingly.

10. Indemnification: Engineer shall indemnify and hold harmless Client up to the amount of this contract fee (for services) from loss or expense, including reasonable attorney's fees for claims for personal injury (including death) or property damage to the extent caused by the sole negligent act, error or omission of Engineer.

Client shall indemnify and hold harmless Engineer under this Agreement, from loss or expense, including reasonable attorney's fees, for claims for personal injuries (including death) or property damage arising out of the sole negligent act, error omission of Client.

In the event of joint or concurrent negligence of Engineer and Client, each shall bear that portion of the loss or expense that its share of the joint or concurrent negligence bears to the total negligence (including that of third parties), which caused the personal injury or property damage.

Engineer shall not be liable for special, incidental or consequential damages, including, but not limited to loss of profits, revenue, use of capital, claims of customers, cost of purchased or replacement power, or for any other loss of any nature, whether based on contract, tort, negligence, strict liability or otherwise, by reasons of the services rendered under this Agreement.

11. Opinions of Probable Cost: Since Engineer has no control over the cost of labor, materials or equipment, or over the Contractor(s) method of determining process, or over competitive bidding or market conditions, his/her opinions of probable Project Construction Cost provided for herein are to be made on the basis of his/her experience and qualifications and represent his/her judgement as a design professional familiar with the construction industry, but Engineer cannot and does not guarantee that proposal, bids or the Construction Cost will not vary from opinions of probable construction cost prepared by him/her. If prior to the Bidding or Negotiating Phase, Client wishes greater accuracy as to the Construction Cost, the Client shall employ an independent cost estimator Consultant for the purpose of obtaining a second construction cost opinion independent from Engineer.
12. Governing Law & Dispute Resolutions: This Agreement shall be governed by and construed in accordance with Articles previously set forth by (Item 9 of) this Agreement, together with the laws of the **State of Illinois**.

Any claim, dispute or other matter in question arising out of or related to this Agreement, which can not be mutually resolved by the parties of this Agreement, shall be subject to mediation as a condition precedent to arbitration (if arbitration is agreed upon by the parties of this Agreement) or the institution of legal or equitable proceedings by either party. If such matter relates to or is the subject of a lien arising out of the Engineer's services, the Engineer may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the matter by mediation or by arbitration.

The Client and Engineer shall endeavor to resolve claims, disputes and other matters in question between them by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Requests for mediation shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

13. Successors and Assigns: The terms of this Agreement shall be binding upon and inure to the benefit of the parties and their respective successors and assigns: provided, however, that neither party shall assign this Agreement in whole or in part without the prior written approval of the other.
14. Waiver of Contract Breach: The waiver of one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof, shall be limited to the particular instance, shall not operate or be deemed to waive any future breaches of this Agreement and shall not be construed to be a waiver of any provision, except for the particular instance.
15. Entire Understanding of Agreement: This Agreement represents and incorporates the entire understanding of the parties hereto, and each party acknowledges that there are no warranties, representations, covenants or understandings of any kind, matter or description whatsoever, made by either party to the other except as expressly set forth herein. Client and the Engineer hereby agree that any purchase orders, invoices, confirmations, acknowledgments or other similar documents executed or delivered with respect to the subject matter hereof that conflict with the terms of the Agreement shall be null, void & without effect to the extent they conflict with the terms of this Agreement.
16. Amendment: This Agreement shall not be subject to amendment unless another instrument is duly executed by duly authorized representatives of each of the parties and entitled "Amendment of Agreement".

17. Severability of Invalid Provisions: If any provision of the Agreement shall be held to contravene or to be invalid under the laws of any particular state, county or jurisdiction where used, such contravention shall not invalidate the entire Agreement, but it shall be construed as if not containing the particular provisions held to be invalid in the particular state, country or jurisdiction and the rights or obligations of the parties hereto shall be construed and enforced accordingly.
18. Force Majeure: Neither Client nor Engineer shall be liable for any fault or delay caused by any contingency beyond their control including but not limited to acts of God, wars, strikes, walkouts, fires, natural calamities, or demands or requirements of governmental agencies.
19. Subcontracts: Engineer may subcontract portions of the work, but each subcontractor must be approved by Client in writing.
20. Access and Permits: Client shall arrange for Engineer to enter upon public and private property and obtain all necessary approvals and permits required from all governmental authorities having jurisdiction over the Project. Client shall pay costs (including Engineer's employee salaries, overhead and fee) incident to any effort by Engineer toward assisting Client in such access, permits or approvals, if Engineer perform such services.
21. Designation of Authorized Representative: Each party (to this Agreement) shall designate one or more persons to act with authority in its behalf in respect to appropriate aspects of the Project. The persons designated shall review and respond promptly to all communications received from the other party.
22. Notices: Any notice or designation required to be given to either party hereto shall be in writing, and unless receipt of such notice is expressly required by the terms hereof shall be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party to whom such notice is directed at such party's place of business or such other address as either party shall hereafter furnish to the other party by written notice as herein provided.
23. Limit of Liability: The Client and the Engineer have discussed the risks, rewards, and benefits of the project and the Engineer's total fee for services. In recognition of the relative risks and benefits of the Project to both the Client and the Engineer, the risks have been allocated such that the Client agrees that to the fullest extent permitted by law, the Engineer's total aggregate liability to the Client for any and all injuries, claims, costs, losses, expenses, damages of any nature whatsoever or claim expenses arising out of this Agreement from any cause or causes, including attorney's fees and costs, and expert witness fees and costs, shall not exceed the total Engineer's fee for professional engineering services rendered on this project as made part of this Agreement. Such causes included but are not limited to the Engineer's negligence, errors, omissions, strict liability or breach of contract. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

24. Client's Responsibilities: The Client agrees to provide full information regarding requirements for and about the Project, including a program which shall set forth the Client's objectives, schedule, constraints, criteria, special equipment, systems and site requirements.

The Client agrees to furnish and pay for all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services which the Client may require to verify the Contractor's Application for Payment or to ascertain how or for what purpose the Contractor has used the money paid by or on behalf of the Client.

The Client agrees to require the Contractor, to the fullest extent permitted by law, to indemnify, hold harmless, and defend the Engineer, its consultants, and the employees and agents of any of them from and against any and all claims, suits, demands, liabilities, losses, damages, and costs ("Losses"), including but not limited to costs of defense, arising in whole or in part out of the negligence of the Contractor, its subcontractors, the officers, employees, agents, and subcontractors of any of them, or anyone for whose acts any of them may be liable, regardless of whether or not such Losses are caused in part by a party indemnified hereunder. Specifically excluded from the foregoing are Losses arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs, or specifications, and the giving of or failure to give directions by the Engineer, its consultants, and the agents and employees of any of them, provided such giving or failure to give is the primary cause of Loss. The Client also agrees to require the Contractor to provide to the Engineer the required certificate of insurance.

The Client further agrees to require the Contractor to name the Engineer, its agents and consultants as additional insureds on the Contractor's policy or policies of comprehensive or commercial general liability insurance. Such insurance shall include products and completed operations and contractual liability coverages, shall be primary and noncontributing with any insurance maintained by the Engineer or its agents and consultants, and shall provide that the Engineer be given thirty days, unqualified written notice prior to any cancellation thereof.

In the event the foregoing requirements, or any of them, are not established by the Client and met by the Contractor, the Client agrees to indemnify and hold harmless the Engineer, its employees, agents, and consultants from and against any and all Losses which would have been indemnified and insured against by the Contractor, but were not.

When Contract Documents prepared under the Scope of Services of this contract require insurance(s) to be provided, obtained and/or otherwise maintained by the Contractor, the Client agrees to be wholly responsible for setting forth any and all such insurance requirements. Furthermore, any document provided for Client review by the Engineer under this Contract related to such insurance(s) shall be considered as sample insurance requirements and not the recommendation of the Engineer. Client agrees to have their own risk management department review any and all insurance requirements for adequacy and to determine specific types of insurance(s) required for the project. Client further agrees that decisions concerning types and amounts of insurance are

specific to the project and shall be the product of the Client. As such, any and all insurance requirements made part of Contract Documents prepared by the Engineer are not to be considered the Engineer's recommendation, and the Client shall make the final decision regarding insurance requirements.

25. Information Provided by Others: The Engineer shall indicate to the Client the information needed for rendering of the services of this Agreement. The Client shall provide to the Engineer such information as is available to the Client and the Client's consultants and contractors, and the Engineer shall be entitled to rely upon the accuracy and completeness thereof. The Client recognizes that it is impossible for the Engineer to assure the accuracy, completeness and sufficiency of such information, either because it is impossible to verify, or because of errors or omissions which may have occurred in assembling the information the Client is providing. Accordingly, the Client agrees, to the fullest extent permitted by law, to indemnify and hold the Engineer and the Engineer's subconsultants harmless from any claim, liability or cost (including reasonable attorneys' fees and cost of defense) for injury or loss arising or allegedly arising from errors, omissions or inaccuracies in documents or other information provided by the Client to the Engineer.
26. Payment: Client shall be invoiced once each month for work performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. The client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause within said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law, whichever is the lesser) until paid. Client further agrees to pay Engineer's cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees, as well as costs attributed to suspension of services accordingly and as follows:

Collection Costs. In the event legal action is necessary to enforce the payment provisions of this Agreement, the Engineer shall be entitled to collect from the Client any judgement or settlement sums due, reasonable attorneys' fees, court costs and expenses incurred by the Engineer in connection therewith and, in addition, the reasonable value of the Engineer's time and expenses spent in connection with such collection action, computed at the Engineer's prevailing fee schedule and expense policies.

Suspension of Services. If the Client fails to make payments when due or otherwise is in breach of this Agreement, the Engineer may suspend performance of services upon five (5) calendar days' notice to the Client. The Engineer shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension caused by any breach of this Agreement by the Client. Client will reimburse Engineer for all associated costs as previously set forth in (Item 4 of) this Agreement.

27. When construction observation tasks are part of the service to be performed by the Engineer under this Agreement, the Client will include the following clause in the construction contract documents and Client agrees not to modify or delete it:

Kotecki Waiver. Contractor (and any subcontractor into whose subcontract this clause is incorporated) agrees to assume the entire liability for all personal injury claims suffered by its own employees, including without limitation claims under the **Illinois** Structural Work Act, asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon the Worker's Compensation Act, court interpretations of said Act or otherwise; and to the fullest extent permitted by law, agrees to indemnify and hold harmless and defend Owner and Engineer and their agents, employees and consultants (the "Indemnitees") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnitees may sustain as a result of such claims, except to the extent that **Illinois** law prohibits indemnity for the Indemnitees' own negligence. The Owner and Engineer are designated and recognized as explicit third party beneficiaries of the Kotecki Waiver within the general contract and all subcontracts entered into in furtherance of the general contract.

28. Job Site Safety/Supervision & Construction Observation: The Engineer shall neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences of procedures, or for safety precautions and programs in connection with the Work since they are solely the Contractor's rights and responsibilities. The Client agrees that the Contractor shall supervise and direct the work efficiently with his/her best skill and attention; and that the Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction and safety at the job site. The Client agrees and warrants that this intent shall be carried out in the Client's contract with the Contractor. The Client further agrees that the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work; and that the Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the subject site and all other persons who may be affected thereby. The Engineer shall have no authority to stop the work of the Contractor or the work of any subcontractor on the project.

When construction observation services are included in the Scope of Services, the Engineer shall visit the site at intervals appropriate to the stage of the Contractor's operation, or as otherwise agreed to by the Client and the Engineer to: 1) become generally familiar with and to keep the Client informed about the progress and quality of the Work; 2) to strive to bring to the Client's attention defects and deficiencies in the Work and; 3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. If the Client desires more extensive project observation, the Client shall request that such services be provided by the Engineer as Additional and Supplemental Construction Observation Services in accordance with the terms of this Agreement.

The Engineer shall not be responsible for any acts or omissions of the Contractor, subcontractor, any entity performing any portions of the Work, or any agents or employees of any of them. The Engineer does not guarantee the performance of the

Contractor and shall not be responsible for the Contractor's failure to perform its Work in accordance with the Contract Documents or any applicable laws, codes, rules or regulations.

When municipal review services are included in the Scope of Services, the Engineer (acting on behalf of the municipality), when acting in good faith in the discharge of its duties, shall not thereby render itself liable personally and is, to the maximum extent permitted by law, relieved from all liability for any damage that may accrue to persons or property by reason of any act or omission in the discharge of its duties. Any suit brought against the Engineer which involve the acts or omissions performed by it in the enforcement of any provisions of the Client's rules, regulation and/or ordinance shall be defended by the Client until final termination of the proceedings. The Engineer shall be entitled to all defenses and municipal immunities that are, or would be, available to the Client.

29. **Insurance and Indemnification:** The Engineer and the Client understand and agree that the Client will contractually require the Contractor to defend and indemnify the Engineer and/or any subconsultants from any claims arising from the Work. The Engineer and the Client further understand and agree that the Client will contractually require the Contractor to procure commercial general liability insurance naming the Engineer as an additional named insured with respect to the work. The Contractor shall provide to the Client certificates of insurance evidencing that the contractually required insurance coverage has been procured. However, the Contractor's failure to provide the Client with the requisite certificates of insurance shall not constitute a waiver of this provision by the Engineer.

The Client and Engineer waive all rights against each other and against the Contractor and consultants, agents and employees of each of them for damages to the extent covered by property insurance during construction. The Client and Engineer each shall require similar waivers from the Contractor, consultants, agents and persons or entities awarded separate contracts administered under the Client's own forces.

30. **Hazardous Materials/Pollutants:** Unless otherwise provided by this Agreement, the Engineer and Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials/pollutants in any form at the Project site, including but not limited to mold/mildew, asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic/hazardous/pollutant type substances.

Furthermore, Client understands that the presence of mold/mildew and the like are results of prolonged or repeated exposure to moisture and the lack of corrective action. Client also understands that corrective action is a operation, maintenance and repair activity for which the Engineer is not responsible.

