

Department of Public Works

City Hall
730 Washington Avenue
Racine, Wisconsin 53403
262.636.9121 – Public Works
262.636.9191 - Engineering



Mark Yehlen, P.E.
Commissioner of Public Works

Thomas M. Eeg, P.E.
Asst. Comm. of Public Works/Operations

John C. Rooney, P.E.
Asst. Comm. of Public Works/City Engineer

April 30, 2013

Ald. Sandy Weidner
Chairwoman, Public Works
and Services Committee
Racine, Wisconsin

Dear Ald. Weidner:

Submitted for your review and approval is a professional services proposal from Arnold & O'Sheridan for providing engineering services, preparation of bid documents, bidding and construction oversight services for Contract 30-13 (K3-033), Professional Services – Design Festival Hall and Parks Administration AC Replacement. These services are for the not-to-exceed amount of \$8,500.00.

Funds to defray the cost of these professional services are available in the following accounts;

\$3,750.00 – Account 108.993.5020, Festival Hall Green Room HVAC
\$4,750.00 – Account 993.200.5020, Annex-Parks AC Replacement
\$8,500.00 – Total

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Eeg", is written over the word "Sincerely,".

Thomas M. Eeg
Asst. Comm. of Public Works/Operations

TME:das



April 15, 2013

Mr. Thomas M. Eeg, PE
City of Racine
Assistant Commissioner of Public Works / Operations
730 Washington Avenue
Racine, Wisconsin 53403

Re: **City of Racine – Request for Proposals – AC Replacements**
A & O Project Number: 130153

Dear Thomas:

Thank you for the opportunity to submit our proposal for the *City of Racine AC Replacement* projects in Racine. We are grateful for your consideration and look forward to this opportunity to work with you.

Fee Proposal

After careful review of the attached scope of services, we propose to provide engineering services at the following lump sum fees:

Festival Hall – RTU-1 AC Replacement for Green Room (55 th Street)	
MEP Design	\$ 3,500
Total Engineering Fee:	<u>\$ 3,500</u>

City Hall Annex – Parks Dept AC Replacement (800 Center Street)	
MEP Design	\$ 4,500
Total Engineering Fee:	<u>\$ 4,500</u>

Anticipated Reimbursable Expenses as outlined below: \$500 (maximum)

The following Project related expenses will be billed as reimbursable expenses to the extent they are reimbursable by the Owner under the Prime Agreement:

- Expense of plotting and reproduction of Drawings and Specifications and other documents associated with the Project. This includes the following: Requested check sets (including those for coordination meetings and light table review meetings), defined Project milestone printings (including final bid documents), hard copies of electronically distributed Drawings and Specifications, plan review submittal packages, and other requested progress sets.
- Expense of transportation in connection with the Project (including vehicle mileage)
- Postage, shipping, and delivery expenses related to the handling of documents for the Project

For all reimbursable expenses, a multiple of 1.10 times the expenses incurred will be charged to the project. These reimbursable expenses will not exceed \$500 on the basis of the proposal assumptions included herein.

Assumptions

This proposal is based on the following assumptions and as outlined in the attached scope of services:

Festival Hall – RTU-1 AC Replacement for Green Room (55th Street)

- The project will consist of the design of a replacement for the existing AC system which consists of (1) existing Carrier Model 48DP014 Unit and controls which will be designed to operate on the Johnson Controls METASYS system as well as any associated electrical and plumbing requirements. A project cost estimate, final bid documents, specifications, and construction administration services will be provided. We assume the construction cost for the project will be approximately \$30,000.
- Revisions to existing associated distribution ductwork and/or piping is not anticipated.
- Any in-person meetings requiring our attendance will be held local to the Racine metropolitan area.
- We assume all design submittals will be handled electronically, with no hard copy print sets anticipated.

City Hall Annex – Parks Dept AC Replacement (800 Center Street)

- The project will consist of the design of a replacement for the existing air handling unit which consists of (1) existing Westinghouse Unitaire MU-151 Unit and controls which will be designed to operate on the Johnson Controls METASYS system as well as any associated electrical and plumbing requirements. A project cost estimate, final bid documents, specifications, and construction administration services will be provided. We assume the construction cost for the project will be approximately \$40,000.
- Revisions to existing associated distribution ductwork and/or piping is not anticipated.
- Any in-person meetings requiring our attendance will be held local to the Racine metropolitan area.
- We assume all design submittals will be handled electronically, with no hard copy print sets anticipated.

Why A&O

We recognize that many firms want to work with the City of Racine, and ultimately, the firm selected will need to bring more than just a competitive fee. The selected firm will need to provide a solid blend of experience, project team expertise, and open communication. We are confident that we will offer exactly that.

Experience

Arnold & O'Sheridan has been performing scope design for city, county and local government buildings and municipal projects for nearly 50 years. This experience allows our team to bring clarity to the complexity of developing mechanical systems, including, but not limited to, customized heating, ventilation and air conditioning; boiler and chiller plants; control systems; heat reclaim and recovery; thermal storage system; building automation; indoor air quality; commissioning and monitoring; troubleshooting; facility condition and assessment; energy audits; energy modeling.

With hundreds of projects on our mechanical resume, Arnold & O'Sheridan is honored to have recently completed 2008 Boiler Replacement Feasibility Study for the City of Racine, along with the following projects:

- **Milwaukee County Correctional Facility, South Dormitory Air-Conditioning** *Franklin, WI*
- **Elmbrook Memorial Hospital, Basement Air-Conditioning & Exhaust** *Brookfield, WI*

- **UW-Platteville, Ullsvik Center Renovation & Addition** *Platteville, WI*
 - Project included the demolition of the existing structure, renovation of 48,000 SF of existing space, and addition of 105,000 SF of new space
 - Mechanical and electrical renovation included replacement of existing systems with state-of-the-art variable air volume air handling systems with water cooled chillers designed to handle multiple levels of occupancy. Multiple air handling units and two unequal sized chillers allow for partial occupancy without sacrificing efficiency
 - A new 550-ton chiller replaced the existing 350-ton chiller. Indirect dual level switched fluorescent lighting was provided with occupancy controls

- **UW-Platteville, Ullrich Hall Renovation** *Platteville, WI*
 - 30,000 SF renovation for three floors of interior structure and roof while maintaining exterior façade on this historic 1916 building
 - Mechanical and electrical renovation included state-of-the-art variable air volume handling system with room zoning, water-cooled chiller system, and indirect fluorescent lighting with dual switching
 - New 50-ton chiller replaced the existing 100-ton chiller

Project Team Expertise

Mechanical system design requires a team that is dedicated to maximizing the value of the project dollars by truly understanding the project goals and objectives and providing innovative solutions. In order to provide this value, the project team must be one with extensive individual experience.

Arnold & O'Sheridan selected each member of the proposed project team for the individual value they bring to the team and for the collective value they bring as a team who has worked together on countless projects in the past. Below is a brief bio of each team member; full resumes for each key team member can be provided if needed.



David Schneider, PE, LEED® AP – Associate Director of Mechanical Engineering

With over 9 years of industry experience, David excels at successfully managing multiple projects and completing them within budgetary and schedule constraints. David has a solid history working with DFD on projects at a number of Universities across the state, as well as with various state, county, and local government buildings.



Roger Knight – Mechanical Engineer

As a mechanical engineer, Roger develops, designs, and improves mechanical systems with a particular emphasis and focus on systems analysis and design. He has experience provide in-depth analyses of welding processes, material selection, corrosion control, and weld defects and prevention.



John Hudock, PE, LEED® AP - Electrical Engineer

Since 2004, John has been busy with the design of electrical systems, developing plans, details, and specifications for a variety of high-profile projects. As a Professional Engineer and LEED® certified engineer, John brings expertise in emergency system generation, lighting, fire alarm systems, photovoltaics, power distribution systems, coordination/arc flash studies, and low and medium voltage

power system design. John is a graduate of the Milwaukee School of Engineering.

Open Communication

As a multi-discipline consulting engineering firm, we understand the importance of clear and open communication amongst our project team. This is the basis of our project management process, which stresses coordination across not only our multiple disciplines, but amongst all stakeholders of the project. By making communication a priority, we are able to proactively address project challenges and avoid costly change orders. We are proud to employ a team of industry leaders who are dedicated to providing more than just leading-edge solutions... they are committed to providing the highest quality of service to our clients.

Scope of Services

In regard to design services, the drawings and specifications are produced to provide the bidding contractors a guide as to types of systems, location of equipment, sizes, and capacities. The specifications indicate materials and methods to be used, as well as outlining minimum acceptable equipment types.

Existing condition observations to be performed are based on a visual inspection only, and do not contemplate or involve the dismantling or moving of any objects or portion of the premises. Latent and concealed conditions, defects, and deficiencies are excluded from our review. Arnold & O'Sheridan, Inc. shall have no liability for concealed from view or inaccessible conditions which were not able to be directly observed. Our observations will be limited to the conditions on the date of our observation, the real property, and not the review of personal property.

Our engineers will work with your office to define what critical design information will be required, and the milestone dates by which this information needs to be provided in order for our office to successfully execute this project. Well defined design parameters developed by these dates are necessary to avoid the need for engineering system redesign and to avoid coordination issues later on in the project schedule; both of which have not been accounted for within the context of this proposal.

The Arnold & O'Sheridan, Inc. Standard Terms and Conditions (copy attached) should be considered a part of this proposal and are incorporated herein by reference. If this proposal and these terms and conditions are acceptable, please sign both copies. Keep one copy and return one copy for our records.

Arnold & O'Sheridan requires a signed proposal, contract, or written authorization to proceed prior to performing services on all of its projects. The undersigned individuals acknowledge that they are authorized to sign on behalf of and bind their respective employers to the terms and conditions of this agreement.

NOTE: the proposed engineering fees contained in this proposal are valid for 60 days from the date of this proposal.

I will be the Project Manager and your main point-of-contact for the work completed under this proposal. Please contact me at (262) 790-5362, or via email at dschneider@ao-eng.com, if you have any questions. Thank you again for allowing us to participate in this exciting process; we look forward to working with you.

Sincerely,

ARNOLD & O'SHERIDAN, INC.
CONSULTING ENGINEERS



David S. Schneider, PE, LEED AP
Associate Director of Mechanical Engineering

CITY OF RACINE

Accepted By:

(Signature)

(Printed Name)

(Title)

(Date)

Attachment

c: File

ARNOLD & O'SHERIDAN, INC.

STANDARD TERMS AND CONDITIONS

- 1. Services.** Arnold & O'Sheridan, Inc. (A&O), a Wisconsin corporation, will perform the services set forth in the proposal under these Terms and Conditions. A&O's services shall be performed in a manner consistent with that degree of skill and care ordinarily exercised by practicing design professionals performing similar services in the same locality, at the same site and under the same or similar circumstances and conditions. A&O makes no other representations or warranties, whether expressed or implied, with respect to the services rendered hereunder.
- 2. Compensation.** In consideration of the services performed by A&O, the Client shall pay A&O as provided in the proposal. A&O's client is responsible for reimbursable expenses incurred, including, but not limited to, travel, mileage, printing and CAD services.
- 3. Terms of Payment.** Invoices will be sent no more often than monthly for the services performed and the expenses incurred for this job, during the preceding monthly period. A&O's client should pay the full amount of the invoice within 30 days of the invoice date. If the client fails to make any payment due A&O within 30 days of the invoice date, the amount due A&O shall include a finance charge at the rate of one percent per month, calculated from the 30th day after the date of the invoice.
- 4. Force Majeure.** A&O shall not be liable for any loss or damage due to failure or delay in rendering any service called for under the proposal resulting from any cause beyond A&O's reasonable control, including but not limited to delays because of strikes, lockouts, work slowdowns or stoppages, accidents, acts of God, failure of any governmental or other regulatory authority to act in a timely manner, failure of the Client to furnish timely information or approve or disapprove of the Consultant's services or work product, or delays caused by faulty performance by the Client's or by contractors of any level. When such delays beyond A&O's reasonable control occur, the Client agrees that A&O shall not be responsible for damages, nor shall A&O be deemed in default of this Agreement.
- 5. Independent Contractor.** It is agreed between the parties that employment by A&O's client of construction contractors or subcontractors to construct work and perform maintenance constitutes them independent contractors and as such they are completely responsible to A&O's client for the performance of their contracts, and maintaining the construction schedules. It is further agreed that these construction organizations are solely responsible for the means, methods, techniques, sequences and procedures of construction, and for safety precautions incident thereto. The presence of an A&O project manager at the work site will not relieve these construction organizations of these responsibilities. Accordingly, A&O shall not supervise, direct, or have control over construction contractors' or subcontractors' work. A&O shall not have authority over or responsibility for the construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the work of any construction contractor or subcontractor.

6. **Insurance.** Where A&O's client requires that project construction contractors or subcontractors provide liability insurance, A&O's client shall require such contractors or subcontractors to name A&O as an additional insured. A&O's client shall require contractors and subcontractors to submit certificates evidencing proof of such coverage directly to A&O at 1111 Deming Way, Suite 200, Madison, Wisconsin 53717.
7. **Patents.** A&O shall not conduct patent searches in connection with its services under the proposal and assumes no responsibility for any patent or copyright infringement arising therefrom. Nothing in the proposal or these terms and conditions shall be construed as a warranty or representation that anything made, used or sold arising out of the services performed under the proposal will be free from patent or copyright infringement.
8. **Termination of Contract.** Either party may at any time, upon seven days' prior written notice to the other party, terminate this Agreement. Upon such termination, A&O's client shall pay to A&O all amounts owing under the proposal for all work performed up to the effective date of termination, plus reasonable termination costs. Reasonable termination costs shall include, but not be limited to, the cost of terminating any contracts, leases or other obligations incurred by A&O in connection with the services set forth in the proposal.
9. **A&O's Right to Suspend its Services.** In the event that A&O's client fails to pay A&O the amount due on any invoice within 60 days of the date of the invoice, A&O may, after giving seven days' written notice to its client, suspend its services until payment in full for all services and expenses is received. The Client agrees to indemnify and hold A&O harmless from any claim or liability resulting from such suspension.
10. **Instruments of Service.** Any drawings, specifications or reports prepared by A&O under the attached proposal shall be the property of A&O's client. A&O shall have the unlimited right, however, to use such drawings, specifications and reports and the intellectual property therein. A&O's client shall use such drawings, specifications and reports only for the project or purpose for which they were prepared. "Documents" as referred to herein are limited to the printed copy (hard copy) that is signed or sealed by A&O, its agents or employees. Files on electronic media of text, data, graphics, or of other types that are furnished by A&O, are only for the convenience of A&O's client. Because electronic media can deteriorate or be modified, inadvertently or otherwise, without authorization of the data's creator, the party receiving electronic data agrees that it will perform acceptance tests or procedures within 30 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected in the 30-day period will be corrected by the creator of the electronic data. Electronic drawings will not contain A&O's or its engineer's seal or title block identification. The creator of electronic files is under no obligation to maintain hardware or software to use the media of transfer at a future date. Any conclusions derived from electronic files that are not specifically a requirement of the project work are at the user's sole risk. Accordingly, the electronic documents provided to the Client are for informational purposes only and are not intended as an end-product. A&O makes no warranties, either expressed or implied, regarding the fitness or suitability of the electronic documents. Accordingly, the Client agrees to waive any and all claims against the A&O and A&O's consultants relating in any way to the unauthorized use, reuse or alteration of the electronic documents.
11. **Opinions of Probable Cost.** When required as part of its work, A&O will furnish opinions of probable cost, but does not guarantee the accuracy of such estimates. Opinions of probable cost, financial evaluations, feasibility studies, economic analysis of alternate solutions, and utilitarian considerations of operations and maintenance costs prepared by A&O hereunder will be made on the basis of A&O's experience and qualifications and will represent A&O's judgment as an experienced and qualified design professional. However, users of the probable cost opinions must recognize that A&O does not have control over the cost of labor, material, equipment, or services furnished by others or over market conditions or contractors' methods of determining prices or performing the work.

12. **Payments Marked "Paid In Full".** We may accept letters, checks, or other types of payments showing "payment in full" or using other language to indicate satisfaction of your debt, without waiving any of our rights to receive full payment under this Agreement. Satisfaction of your debt for less than the full amount requires a written agreement, signed by one of our authorized employees.
13. **Governing Law.** The proposal and these terms and conditions shall be governed by the laws of the State of Wisconsin.
14. **No Assignment.** Neither party shall assign its rights, interests or obligations under the proposal without the express written consent of the other party. Any assignment made without such written consent shall be void; however, such consent shall not be unreasonably withheld. A&O shall not, in connection with any such assignment by the Client, be required to execute any documents that in any way might, in the sole judgment of the A&O, increase A&O's contractual or legal obligations or risks, or the availability or costs of its professional or general liability insurance.
15. **No Waiver.** The failure of either party to enforce, at any time, the provisions of the proposal or these terms and conditions shall not constitute a waiver of such provisions or the right of A&O or its client at any time to avail themselves of such remedies as either may have for any breach or breaches of such provisions.
16. **Services to be Furnished by Client.** A&O's client shall, at no cost to A&O:
 - a. Provide all data and information in its possession as may be required by A&O to perform the services set forth in the proposal.
 - b. Provide access to the work site so that A&O's employees may perform the work under the proposal without interference.
 - c. Designate a person to act as its representative, who shall have complete authority to transmit instructions, receive information, and interpret and define its policies and decisions with respect to the services under the proposal.
 - d. Give prompt notice to A&O should it observe or otherwise become aware of any defect in the services provided by A&O.
 - e. Furnish to A&O, prior to any performance by A&O, a copy of any engineering, design, and construction standards, which it shall require, A&O to follow in its performance of services under the proposal.
17. **Waiver of Subrogation.** Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's "all risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of material supplied or installed by others, compromising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance. To the extent damages are covered by property insurance during construction, A&O, Client, Owner, Contractors, Consultants, agents and employees of any of them waive all rights against each other for damages. Client shall require of the Owner, Contractors, Consultants, agents and employees of any of them similar waivers in favor of the other parties enumerated herein.
18. **Entire Agreement.** The proposal and these terms and conditions, upon their acceptance by A&O's client, shall constitute the entire and integrated understanding between the parties and supersede all prior and contemporaneous negotiations, representations and agreements, whether written or oral, with respect to the subject matter herein. This agreement may not be amended by A&O's client or the owner issuing a purchase

order containing additional or contradictory terms. The proposal and these terms and conditions may be amended only by written instrument signed by A&O and A&O's client.

19. **Mediation:** The Client and A&O agree to submit all claims and disputes arising out of this Agreement to non-binding mediation prior to the initiation of legal proceedings. This provision shall survive completion or termination of this Agreement; however, neither party shall seek mediation of any claim or dispute arising out of this Agreement beyond the period of time that would bar the initiation of legal proceedings to litigate such claim or dispute under the applicable law.
20. **Information Reliance:** A&O shall be entitled to rely, without liability, on the accuracy and completeness of any and all information provided by Client, Client's consultants and contractors, and information from public records, without the need for independent verification.
21. **Certifications:** A&O shall not be required to sign any documents, no matter by whom requested, that would result in A&O's having to certify, guaranty, or warrant the existence of conditions that A&O cannot ascertain.
22. **Third Parties:** Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Client or A&O. A&O's services hereunder are being performed solely for the benefit of the Client, and no other entity shall have any claim against A&O because of this Agreement or A&O's performance of services hereunder.
23. **Consequential Damages:** Neither the Client nor A&O shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of, or connected in any way to the Project or this Agreement. This mutual waiver includes, but is not limited to, damages related to loss of use, loss of profits, loss of income, loss of reputation, unrealized savings or diminution of property value and shall apply to any cause of action including negligence, strict liability, breach of contract and breach of warranty.
24. **Agreed Remedy:** To the fullest extent permitted by law, the total liability, in the aggregate, of A&O and A&O's officers, directors, employees, agents, and consultants to Client and anyone claiming by, through or under Client, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to A&O's services, the Project or this Agreement, from any cause or causes whatsoever, including but not limited to, negligence, strict liability, breach of contract or breach of warranty shall not exceed the total compensation received by A&O under this Agreement, or the total amount of \$50,000, whichever is greater.
25. **Indemnity:** The Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless A&O, its officers, directors, employees, consultants and Subconsultants (collectively A&O) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with the services performed under this Agreement, except for damages, liabilities or costs arising from the A&O's sole negligence or willful misconduct.

* * *

Task List – Scope of Engineering Services – General Requirements

- Recording, generation and distribution of meeting minutes for information relative to work effort
- Assist in development or review of project schedule with milestone dates
- Schematic design/report documents including:
 - Written description of design parameters
 - Written description of system description
 - Small scale drawings
- Preparation of design development documents including:
 - Drawings
 - Assist in the estimate of probable cost of construction
- Preparation of construction documents including:
 - Drawings using Autodesk products
 - Specifications using A&O three part CSI format specifications or furnished specification sections
 - Assist in the estimate of probable cost of construction
- Coordinating the BIM process efforts in accordance with firm's "BIM Process Outline" which includes hosting Architectural, Structural & MEP BIM clash detection sessions at multiple points throughout the design
- Complete design of previously defined alternate bid items
- Seal drawings, specifications and calculations as required by applicable Regulatory Agency
- Interpret the intent of the contract documents, answer questions and issue addendum clarifications as required during bidding and construction
- Attendance at pre-bid walk through and meeting
- Participate in value engineering process after construction document completion
- Attendance at pre-construction walk through and meeting
- A&O representative attendance at construction progress meetings
- Review shop drawings and product submittals
- Complete site observation visit(s) and prepare a site report for each visit:
 - Perform one (1) MEP visit during construction and one (1) MEP final site visit near the end of construction
- Review reports submitted by testing and inspection agencies for the purpose of identifying results not conforming to construction documents

- Preparation of record drawings based on contractor provided mark-ups
- Participation in LEED documentation process (see separate proposal)

Note: **Only** items checked are included as part of the scope design services to be provided.

Task List – HVAC Engineering Scope of Services

- Review and evaluation of alternative HVAC Systems where appropriate. Develop brief of report summarizing alternatives, advantages, disadvantages and recommendations as needed.
- Calculation of heating, ventilating, and air conditioning loads
- Estimates of probable energy consumption associated with HVAC systems
- Detailed energy modeling using computer simulation software – (If this Service is accepted.) Per LEED 2009.
- Life cycle cost analyses
- Estimates of probable construction costs for HVAC systems.
- Replacement of existing HVAC equipment as indicated in the attached project scope assumptions
- Central cooling system design, including pumping and piping system design
- Central heating system design, including pumping and piping system design
- Geothermal system piping design (If applicable - ground-loop, pond system, etc.)
- Natural gas system piping design from building utility meter to building services
- Design of process piping systems
- Air handling system design (supply, exhaust, and return air systems)
- Energy recovery systems design
- Humidity control systems design (humidification and/or dehumidification)
- Coordination of electrical power requirements of mechanical equipment
- Engineered smoke control systems design
- Building exterior wind flow analyses using numerical calculations or through wind tunnel modeling
- Perform detailed sound analyses of HVAC systems during the design process
- Complete building envelope analysis, including either tabular format (worksheets) or Com-Check computer analysis as required by the Wisconsin DSPS.
- Commissioning Services – Refer to attached commissioning scope of work
- Assist with energy incentive or rebate program process

- Review and completion of State of Wisconsin Construction Completion Compliance Certification

Note: **Only** items checked are included as part of the scope of this engineering proposal. To be used in combination with "Task List – Scope of Engineering Services-General Requirements".

HOURLY RATE SCHEDULE

11/1/2012– 10/31/2013

The services are to be completed on an hourly basis. Our hourly rates are computed using direct personnel expense times a multiplier of 2.2. Because our employees have a range of wages, and to be fair to the Client, we invoice each of our employees separately. Our wage rates are as follows:

President, Chairman	\$180.00	
Chief Operating Officer	\$170.00	
Director	\$160.00	
Senior Project Manager	\$140.00	
Department Manager	\$109.00	- \$160.00
Project Manager	\$120.00	- \$150.00
Senior Project Engineer	\$110.00	- \$145.00
Project Engineer	\$ 73.00	- \$110.00
Senior Project Designer	\$100.00	- \$111.00
Project Designer	\$ 73.00	- \$ 97.00
BIM Manager	\$ 92.00	- \$ 95.00
CAD Technician	\$ 49.00	- \$ 79.00
Technician	\$ 50.00	- \$ 70.00

The above billing rates include all overhead and expenses except for:

Car/Truck Mileage.....	\$0.55 per mile
Consultants	at cost + 2%
Permit/Plan Approval fees	at cost + 10%
Printing/Reproduction	at cost + 10%
Shipping	at cost + 10%