



March 9, 2016

Town of Cutler Bay

10720 Caribbean Blvd. Suite 105

Cutler Bay, FL 33189

Attn: Town Clerk

Re: HVAC Equipment and Controls RFQ #15-12
Professional Engineering Services Proposal No.:

Dear Mr. Quintero:

It was a pleasure presenting to the town of Cutler Bay on December 3, 2015 regarding the RFQ #15-12 "HVAC Equipment and Controls Replacement" and we look forward to working with The Town of Cutler Bay management team on this project. As we discussed, TLC Engineering for Architecture, Inc. (TLC) proposes to provide MEP engineering services for the project, with proposed scope and fee as outlined below.

PROJECT SCOPE

We understand the project is to consist of replacing existing Direct Expansion (DX) air handling system Heating, Ventilation & Air Conditioning (HVAC) equipment and controls with new air cooled chiller and air handling unit. Replace existing pneumatic controls with new Direct Digital Control (DDC) electronic controls, retrofit new DDC control to approximately 135 Variable Air Volume (VAV) Boxes and verify all VAV boxes electric heater has power to the heater element, if not, provide design to bring power to the heater. Provide a study of the existing smoke control system and equipment operation, located in Cutler Bay, Florida. TLC's proposal is based on information provided in RFQ #15-12 October 6, 2015.

BASIC SCOPE OF SERVICES

Basic Scope of Services shall be as outlined in AIA Document B101 – 2007 Edition – Standard Form of Agreement Between Owner and Architect, Article 3. TLC shall provide professional engineering and design services for:

- a. Heating, Ventilating and Air-Conditioning (HVAC) Engineering and coordinate pre-design Test and Balance to confirm existing condition prior to design.
- b. Electrical Engineering: power, electrical distribution, fire alarm, and raceways for other low voltage systems
- c. Structural Engineering
- d. Commissioning



The BIM Modeling platform TLC will utilize for this project is Revit 2014 or 2015. Refer to ATTACHMENT F for level of design, model deliverables and TLC's role in the coordination process.

TLC anticipates submittals at the following design stages:

HVAC Equipment Replacement Phase

- Design Development
- 50% Construction Documents
- 100% Construction Documents

Up to three (3) design review meetings are included in TLC's proposed work scope.

HVAC Controls Replacement Phase

- 50% Construction Documents
- 100% Construction Documents

Up to two (2) design review meetings are included in TLC's proposed work scope.

Existing Smoke Control system Study, Equipment Evaluation Phase and Design

- 50% Submittal
- 100% Submittal

Up to two (2) design review meetings are included in TLC's proposed work scope.

Design modifications may occur during the design and construction process, because it is impossible to foresee or anticipate every design issue until the design work is completed. Modifications can result in increases or decreases in actual construction cost. Therefore, it is important that a reasonable allowance or contingency be included in the bid to accommodate any changes in design as developed for this proposal.

COMMISSIONING

TLC will provide CODE REQUIRED commissioning services in accordance with Florida Building Code 5th Edition (2014), Energy Conservation Section C408. Refer to ATTACHMENT C for scope of services.

CONSTRUCTION PHASE SERVICES

Construction Phase Services provided for this project shall include:

1. Response to bidder questions.
2. Response to local permitting official's comments.
3. Response to Contractor's Request for Information (RFI) during the construction period.
4. A total of six (6) site visits to become generally familiar with the progress and quality of the

construction work in order to determine if the work is being performed in general accordance with the construction documents. (The mix of mechanical, electrical and structural field representation may change based on the needs of the project during the construction phase). Substantial completion and final inspection, if requested, would each constitute a site visit.

INFORMATION TO BE FURNISHED BY THE OWNER

In addition to Owner's Responsibilities defined in AIA Document B101 – 2007 Edition – Standard Form of Agreement Between Owner and Architect, Article 5, specific information and material that impacts the design shall be provided to TLC as shown in ATTACHMENT A.

ADDITIONAL SERVICES

Additional services, when requested in writing by Town of Cutler Bay, Director of Public Works Mr. Alfredo Quintero, shall be performed for additional compensation. Additional Services are as defined in AIA Document B101– 2007 Edition –Standard Form of Agreement Between Owner and Architect, Article 4. Additional Services also include those items shown in ATTACHMENT B. Additional service rate shall be based upon hourly billing rates as shown on ATTACHMENT E.

TLC shall submit the estimated additional services cost for approval and authorization prior to proceeding with a design.

FEE

We propose to provide the above-described basic scope of services for the following fee structure plus reimbursable expenses at 1.0 times direct cost.

HVAC Equipment Replacement Phase

- | | |
|---|-----------|
| • MEP Engineering Fee | \$ 50,375 |
| • Maximum Allowance Structural Engineering Fee | \$ 14,920 |
| • Fundamental Commissioning
(includes HVAC controls Replacement phase) | \$ 12,160 |
| • Opinion of Probable Construction Cost Estimate | \$ 2,870 |

HVAC Controls Replacement Phase

- | | |
|-----------------------|-----------|
| • MEP Engineering Fee | \$ 20,310 |
|-----------------------|-----------|

Existing Smoke Control system Study and Equipment Evaluation Phase

- | | |
|-----------------------|-----------|
| • MEP Engineering Fee | \$ 15,050 |
| Total | \$115,685 |

We propose to provide the above-described basic scope of services and/or Additional Services for an hourly rate per the TLC rate schedule shown in ATTACHMENT E.

Reimbursable expenses include all out-of-county, travel-related costs, (TLC's Miami office to be considered point-of-origin for all trips), airfare, mileage, meals, lodging, plotting and printing (except as required for in-house coordination), photography, courier services, shipping and express mail.

Billing will be monthly, based upon % of service completed and reimbursable expenses. Payment is due within 30 days of OWNER's receipt of invoice.

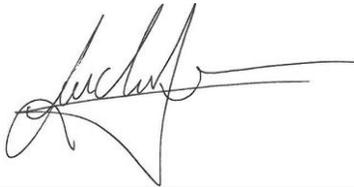
If this proposal is acceptable, your signature below will confirm TLC's authorization to proceed. Retain one copy and return one copy to TLC Engineering for Architecture, Inc. at the address on page 1 of this proposal. This authorization constitutes OWNER's commitment to pay the fee and reimbursable expenses. Alternatively, TLC can enter into a contract agreement with OWNER using AIA Document B101 – 2007 Edition – Standard Form of Agreement Between Owner and Architect. Please refer to ATTACHMENT D for Special Conditions to the Agreement.

We look forward to your favorable selection of TLC and the opportunity to assist your team for this and future projects. Please give me a call with any questions or comments.

Yours truly,

TLC ENGINEERING FOR ARCHITECTURE, INC.

TOWN OF CUTLER BAY



By:

Chi S Lui
Project Manager

Print Name and Title



Erick Gonzalez
Division Director

Date

ATTACHMENT A

INFORMATION TO BE FURNISHED BY THE OWNER

Professional Engineering Services Proposal No.:

February 2, 2016

1. Available, CAD-generated pre-bordered base sheets, site plans, life safety plans, elevations, building sections, reflected ceiling plans and architectural floor plan backgrounds, complete with room names, numbers and rated or special wall construction, will be provided by the Architect during the course of the design (TLC standard is Revit MEP 2013 and Revit Structural 2013).
2. Available room data sheets for each area, indicating equipment and furniture locations, quantity of each type of outlet, receptacle, special lighting and plumbing equipment, and connection for services as part of the TLC design.
3. Available Civil, site drawings and surveys, indicating all underground and overhead mechanical, plumbing and electrical site utilities, which may affect design.
4. Available existing drawings. Field verification or development of as-built documentation of existing systems is anticipated or included in proposed work scope.

ATTACHMENT B

ADDITIONAL SERVICES

Professional Engineering Services Proposal No.:

February 2, 2016

1. AIA Document B101 – 2007 Edition – Abbreviated Standard Form of Agreement Between Owner and Architect, Article 4.
2. Construction site visits or attendance at design review meetings, as requested by the OWNER, in excess of the number of site visits defined in this proposal.
3. Value Engineering meetings and subsequent engineering or design revisions to incorporate accepted value engineering items, including changes to system design after construction documents have been permitted.
4. Significant revisions to the program, design philosophy or Architectural plans after Design Development approval, or to systems selected following schematic phase, and which result in redesign expenses.
5. BIM Modeling level of detail, Model deliverables and TLC's role in the coordination process beyond the scope identified in ATTACHMENT F.
6. Detailed project phasing, preparation of multiple phasing plans, or preparation of multiple sets of construction documents or document packages.
7. Electrical Circuit Breaker Coordination Study.
8. Design of emergency power, UPS, or generator systems.
9. Energy modeling or preparation of systems life cycle cost analysis (LCA).
10. Civil engineering, landscape design, and irrigation design services.
11. Currently unidentified specialty electrical, lighting or communication systems, or other low voltage electronic systems.
12. Document reproduction beyond those required for in-house coordination and submittals as outlined above.
13. Design of site features and amenities outside of building footprint and not directly attached to the building.

ATTACHMENT C Commissioning Scope of Work

Professional Engineering Services Proposal No.:
February 2, 2016

TLC will provide CODE REQUIRED commissioning services in accordance with Florida Building Code 5th Edition (2014), Energy Conservation Section C408 / 2012 International Energy Conservation Code, Section C408.

1. TLC will designate an individual as the Commissioning Authority (CxA) to lead, review and oversee the completion of the commissioning process activities. The CxA will report results, findings, and recommendations directly to the Owner.
2. The design team will assist the owner to prepare the Owner's Project Requirements (OPR) based on the Request for Proposal (RFQ) and the design team will develop the Basis of Design (BOD). The CxA will review both of these documents for clarity and completeness.
3. The CxA will develop and incorporate commissioning requirements into the construction documents, with the assistance of and in collaboration with the design team.
4. The CxA will develop and implement the commissioning plan. The commissioning plan will be updated throughout the course of design and construction phases.
5. The CxA will conduct periodic site observation visits to review the installation of systems being commissioned and witness some equipment start up. A total of six (6) site visits are included in this proposal.
6. The CxA will maintain an Issues Log throughout the Cx process.
7. The CxA will lead the team in the functional performance testing phase and will verify the installation and performance of the each of the systems to be commissioned.
8. The CxA will complete a Preliminary Cx Report prior to substantial completion. Only after the Preliminary Cx Report is received by the Owner can the final mechanical inspection be scheduled with the Building Official / AHJ. The Preliminary Cx Report will include:
 - Itemization of deficiencies found during the required testing that have not been corrected at the time of report preparation.
 - Deferred tests that cannot be performed at the time of report preparation because of climatic conditions.
 - Climatic conditions required for performance of the deferred tests.
9. The CxA will complete a final Cx Report of test procedures and shall include:
 - Results of functional performance tests.
 - Disposition of deficiencies found during testing, including details of corrective measures used or proposed.
 - Functional performance test procedures used during the commissioning process including measurable criteria for test acceptance, provided herein for repeatability. Exception: Deferred tests which cannot be performed at the time of report preparation due to climatic conditions.
10. The CxA will verify that project closeout documents, to be provided by the contractor – record drawings, Operations & Maintenance manual, and system balancing report - are provided within 90 days of Certificate of Occupancy.
11. The CxA will verify seasonal or other deferred functional testing is completed.

Systems to be Commissioned

The Commissioning process activities shall be completed for the following energy-related systems:

1. All Heating, Ventilating, Air Conditioning (HVAC) systems (mechanical and passive) and associated control system(s).
2. Lighting controls and daylighting controls.

Systems and Major Equipment	Included in Cx Scope of Work?	Quantity to be Commissioned
Mechanical Equipment		
Major HVAC Equipment: Air Handling Units, , Heat Pumps, Chillers, Cooling Towers, Boilers	Yes	100%
Terminal Units (VAV) & Fan Coil Units	Yes	25%
Unit Heaters	Yes	10%
Exhaust Fans	Yes	25%
HVAC Controls	Yes	10%
Electrical Equipment		
Lighting / Daylighting Controls	Yes	25%

ATTACHMENT D
SPECIAL CONDITIONS TO THE AGREEMENT

Professional Engineering Services Proposal No.:
February 2, 2016

Energy and Water Estimates:

Since TLC has no control over building and equipment operation, climatic conditions or utility rate changes, TLC cannot and does not guarantee that actual building or system energy usage, water usage, or operating costs will not vary from any estimates, calculations, or models prepared by TLC.

Dispute Resolution:

Any claims or disputes made during design, construction, or post-construction between the OWNER and TLC shall be submitted to non-binding mediation. The OWNER and TLC agree to include a similar mediation agreement with all contractors, subcontractors, subconsultants, suppliers and fabricators, thereby providing for mediation as the primary method for dispute resolution between all parties.

Billing/Payments:

All invoices shall be paid within 30 days of OWNER's receipt of invoice. If an invoice is not paid within 60 days, TLC may, without waiving any claim or right against the OWNER, and without liability whatsoever to the OWNER, terminate the performance of these services. Accounts unpaid 60 days after the invoice date may be subject to a monthly service charge of 1.5% (or the legal rate) on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after billing, the OWNER shall pay all costs of collection, including reasonable attorney's fees.

Indemnification:

The OWNER shall, to the fullest extent permitted by law, indemnify and hold harmless TLC, its officers, directors, employees, agents and subconsultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by any of the parties above named of the services under this agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of TLC. Any such liabilities attributable to TLC are limited to a maximum dollar amount equal to the total of TLC's fee for the project.

Certifications:

TLC shall not be required to execute any document that would result in its certifying, guaranteeing or warranting the existence of conditions whose existence TLC cannot ascertain. This includes, but is not limited to existing building conditions that cannot be known or verified without demolition or destructive investigation.

Consequential Damages:

Notwithstanding any other provision of this Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of this fault or whether it was committed by the OWNER or by TLC, their employees, agents, subconsultants or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.

Delays:

TLC is not responsible for delays caused by factors beyond TLC'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 OWNER to furnish timely information or approve or disapprove of TLC's services or work product promptly, or delays caused by faulty performance by the OWNER or by contractors of any level. When such delays beyond TLC's reasonable control occur, the OWNER agrees TLC is not responsible for damages, nor shall TLC be deemed to be in default of this Agreement.

ATTACHMENT E

BILLING RATES

Professional Engineering Services Proposal No.:
February 2, 2016

TLC Engineering for Architecture, Inc. (TLC)

BILLING FACTOR	DESIGNATION	BILLING RATES
7	Director	\$ 200
6	Senior Engineer, Manager	175
5	Project Engineer, Manager	150
4	Engineer, Specialist	115
3	Graduate Engineer, Designer	95
2	Technician, Intern,	70
1	Secretary, Clerical	55

Rates will remain throughout duration of Project/Contract.

Rev. 7/8/2015

ATTACHMENT F

BIM EXECUTION PLAN

Professional Engineering Services Proposal

The following are expectations for Revit BIM Modeling of the project:

1. BIM Modeling platform for this project is Revit 2014 or 2015.
2. General
 - a. TLC anticipates that models outside of TLC control are completed to a certain point prior to TLC commencing their work. An example is floor plan layout should be relatively agreed with the end user, prior to TLC populating the model with devices.
 - b. TLC anticipates that the Architectural, Structural, Civil and other subconsultant models are detailed to meet AIA requirements for **Level 300**.
3. Authorized uses of TLC Revit Models
 - a. Permit: Model will include sheets which will be used to produce 2-dimensional permit plans.
 - b. Bidding: Model will include sheets which will be used for bidding purposes.
 - c. Construction: Model is suitable for hand off to Subcontractors to start Shop/Fabrication Drawing production.
 - d. Coordination: Model is suitable for use to start the coordination process, which will be based upon shop fabrication drawings produced by the Contractor, who shall be responsible for coordination of the building. The Design model is intended to be the correct quantity, approximate dimensions, and locations, but is not a substitute for contractor shop drawings or fabrication drawings.
4. Discipline Specific Expectations
 - a. In general TLC's BIM model will be detailed to meet AIA requirements for **Level 300** model.
 - b. Mechanical Model shall include all ductwork including insulation, smoke dampers, fire dampers, major mechanical equipment dimensioned based upon basis of design, Sound attenuators, piping greater than 3", and valves.
 - c. Plumbing Model shall include all piping greater than 3", including insulation, valves, cleanouts, plus all drains, plumbing fixtures and equipment based upon basis of design, P-traps.
 - d. Electrical Model to include modeled dimensioned electrical equipment including clearances, light fixtures with maximum dimensions, switches and occupancy sensors, all fire alarm devices and control components, outlets (power & data) model accurately for height and location (suitable for use in elevations). Electrical conduits and other raceways will not be modeled.
 - e. Fire Protection Model shall include stand pipes, sprinkler heads, and pumps.

Replacement of HVAC Equipment
 City of Cutler Bay RFQ #51-12
 Issued 02/02/16

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
Project Startup								
Project Management	1			32			1	\$ 3,735.00
Gather information and drawings				6	4		1	\$ 1,125.00
Kick-off Meeting			2	4	4			\$ 1,140.00
Subtotal	1	0	2	42	8	0	2	\$ 6,000.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
Schematic Design								
Site visits and inspection of existing conditions				12				\$ 1,380.00
Review of existing drawings				10				\$ 1,720.00
Heat/Cooling Load Calculations				4	20			\$ 2,360.00
Equipment Selection and research				2	4			\$ 610.00
Develop Design and Drafting				8	48	4		\$ 5,760.00
Review Comments with County								\$ -
Subtotal	0	0	0	36	78	4	0	\$ 11,830.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
50% Construction Documents								
Heat/Cooling Load Calculations				4	24			\$ 2,740.00
Equipment Selection and research				2	2			\$ 420.00
Develop Design and Drafting				12	48	4		\$ 6,220.00
Review Comments with County				8	8			\$ 1,680.00
Subtotal	0	0	0	26	82	4	0	\$ 11,060.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
100% Construction Documents								
Respond to comments				3	2			\$ 535.00
Additional site visits								\$ -
Finalize Design & Drafting				12	48	4		\$ 6,220.00
Submit for Permit/ QA-QC	1		1					\$ 350.00
Review Meetings				8	8			\$ 1,680.00
Respond to Building Department comments				2	4			\$ 610.00
Subtotal	1	0	1	25	62	4	0	\$ 9,395.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
Construction Administration								
Respond to Bidders			2	8			4	\$ 1,440.00
Respond to RFI & Shop Drawings			2	24	16	0	10	\$ 5,130.00
Site Visits & Closeout				48			0	\$ 5,520.00
Subtotal	0	0	4	80	16	0	14	\$ 12,090.00

Allowance for Structural		4	32	80			4	\$ 14,920.00
Subtotal	0	4	32	80	32	0	28	\$ 14,920.00

Commissioning		4	32	56			4	\$ 12,160.00
Subtotal	0	4	32	56	32	0	36	\$ 12,160.00

Opinion of Probable Construction Cost Estimation		2		20			4	\$ 2,870.00
Subtotal	0	2	0	20	32	0	44	\$ 2,870.00

TOTAL								\$ 80,325.00
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Replacement of HVAC Equipment
 City of Cutler Bay RFQ #51-12
 Issued 02/02/16

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
50% Construction Documents								
Project Management	1		14					\$ 2,100.00
Document Mechanical and Electrical Conditions				12	16			\$ 2,900.00
Equipment Selection and research				4	4			\$ 840.00
Develop Design and Drafting				2	20	4		\$ 2,410.00
Review Comments with County				6	3			\$ 975.00
Subtotal	1	0	14	24	43	4	0	\$ 9,225.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
100% Construction Documents								
Respond to comments				4	4			\$ 840.00
Finalize Design & Drafting				4	20	4		\$ 2,640.00
Submit for Permit/ QA-QC	1		1	2	4		2	\$ 1,070.00
Review Meetings				6	4			\$ 1,070.00
Respond to Building Department comments				3	6			\$ 915.00
Subtotal	1	0	1	19	38	4	2	\$ 6,535.00

Task	Director	Senior Engineer Manager	Project Engineer Manager	Engineer, Specialist	Graduate Engineer Designer	Technician, Intern	Secretary, Clerical	Total
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
Construction Administration (NTE)								
Respond to Bidders			2	2			4	\$ 750.00
Respond to RFI & Shop Drawings			2	10	8		4	\$ 2,430.00
Site Visits & Closeout			3	8				\$ 1,370.00
Subtotal	0	0	7	20	8	0	8	\$ 4,550.00

TOTAL **\$ 20,310.00**

Replacement of HVAC Equipment
 City of Cutler Bay RFQ #51-12
 Issued 02/02/16

<u>Task</u>	<u>Director</u>	<u>Senior Engineer Manager</u>	<u>Project Engineer Manager</u>	<u>Engineer, Specialist</u>	<u>Graduate Engineer Designer</u>	<u>Technician, Intern</u>	<u>Secretary, Clerical</u>	<u>Total</u>
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
50% Construction Documents								
Project Management	1			12				\$ 1,380.00
Existing smoke control system study and evaluation				8	8			\$ 1,680.00
Report and Analysis				24	10	4	3	\$ 4,155.00
Review Meetings with City and Fire Department				12				\$ 1,380.00
Subtotal	1	0	0	56	18	4	3	\$ 8,595.00

<u>Task</u>	<u>Director</u>	<u>Senior Engineer Manager</u>	<u>Project Engineer Manager</u>	<u>Engineer, Specialist</u>	<u>Graduate Engineer Designer</u>	<u>Technician, Intern</u>	<u>Secretary, Clerical</u>	<u>Total</u>
	\$ 200.00	\$ 175.00	\$ 150.00	\$ 115.00	\$ 95.00	\$ 70.00	\$ 55.00	
100% Construction Documents								
Respond to comments				2	2			\$ 420.00
Finalize Report and Analysis				24	10	4	3	\$ 4,155.00
QA-QC	1		2					\$ 500.00
Review Meetings with City and Fire Department				12				\$ 1,380.00
Subtotal	1	0	2	38	12	4	3	\$ 6,455.00

TOTAL **\$ 15,050.00**