

**CITY OF EL PASO, TEXAS**  
**DEPARTMENT HEAD'S SUMMARY REQUEST FOR COUNCIL ACTION (RCA)**

**DEPARTMENT:** Engineering

**AGENDA DATE:** August 7, 2007

**CONTACT PERSON/PHONE:** Rick Talamo, Capital Projects Manager (X4884)

Terrence Freiburg, Purchasing Manager, ext. 4313

**DISTRICT(S) AFFECTED:** 8

**SUBJECT:**

Award of the Central Fire Station HVAC (Heating Ventilation and Air Conditioning) project to Basic Industries, Inc. in the amount of \$990,766.00.

**BACKGROUND / DISCUSSION:**

The Central Fire Station HVAC project was originally bid out under Bid Number 2007-098 as a best value solicitation. There were two bidders on the project, Thermodyn and Total Mechanical. However, there were errors in the proposal submitted by the low bidder and the other bidders' proposal was 44% over the construction estimate. As a result the staff met to discuss the budget and proposal errors and the bids subsequently expired.

At the City's request, through TCPN, Basic Industries submitted a proposal for completing the project based upon the plans and specifications the City's consultant had developed for the best value solicitation. The proposal included all required work for the replacement of the HVAC; however, due to budget constraints only repair of the HVAC and all its piping (Base Bid and Alternate 1) were accepted. Alternate 2 includes upgrades to the doors and windows in the facility, but this is not recommended for award at this time.

Basic Industries is the contractor designated as the Area Job Order Contractor (AJOC) for the El Paso area under The Cooperative Purchasing Network (TCPN). Basic Industries competed statewide for the AJOC award and was selected as the lowest bidder. A job order contract is to be used for the minor repair, rehabilitation, or alteration of a facility, currently in an amount not to exceed \$2 million per project. The Council approved the City's use of the TCPN on March 27, 2007. The Basic Industries proposal was accepted by the consultant, SGB Engineering, as well as Building Maintenance.

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**PRIOR COUNCIL ACTION:**

None

**AMOUNT AND SOURCE OF FUNDING:**

Funding from 2006 Certificates of Obligation in project number PFI06001.

**BOARD / COMMISSION ACTION:**

N/A

\*\*\*\*\* REQUIRED AUTHORIZATION \*\*\*\*\*

**LEGAL:** (if required) \_\_\_\_\_ **FINANCE:** (if required) \_\_\_\_\_

**DEPARTMENT HEAD:** *Gina Ray*

(Example: if RCA is initiated by Engineering, client department should sign also)

*Information copy to appropriate Deputy City Manager*

**APPROVED FOR AGENDA:**

**CITY MANAGER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**CONSTRUCTION PROJECT FORM**  
**Lump Sum**

**DATE:** July 25, 2007  
**PROJECT:** Central Fire Station HVAC  
**SOLICITATION NO:** N/A  
**ACCOUNT NO(S):** Project Number – PFI06001, Account - 508027  
**FUNDING SOURCE:** 2006 Certificates of Obligation  
**DEPARTMENT:** Fire Department  
**DISTRICT(S):** 8                      **LOCATION:** 201 S. Florence

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**AGENDA DATE:** August 7, 2007                      **CONTRACTOR:** Basic Industries, Inc.  
**AMOUNT:** \$990,766.00

**RECOMMENDATION:**

Request that the Purchasing Manager, Financial Services Purchasing Division, be authorized to issue a Purchase Order to Basic Industries, Inc., The Cooperative Purchasing Network (TCPN) contractor, under contract number R4539 (Area Job Order Contract) for the Central Fire Station HVAC Project for the total amount of \$990,766.00 to fund the Base Bid and Alternate Number 1.

The participation by the City of El Paso in The Cooperative Purchasing Network (TCPN) was approved by Mayor and City Council on March 27, 2007.

It is requested that the City Manager of the City of El Paso be authorized to sign any contracts or other documents required to effectuate this award.

As part of the award of this contract, the City Engineer is authorized to approve contract changes which are necessary for proper construction of the work and carrying out the intent of the design, but which do not increase the scope of the contract as awarded, in an amount not to exceed \$25,000.00 per numbered change order without further authorization by City Council.

This is a lump-sum contract. The Financial Services, Engineering and Fire Departments recommend award as indicated to the lowest responsive, responsible bidder.

**DESCRIPTION OR EXPLANATION:**

Base Bid I	\$882,317	Alternate #1	\$108,449
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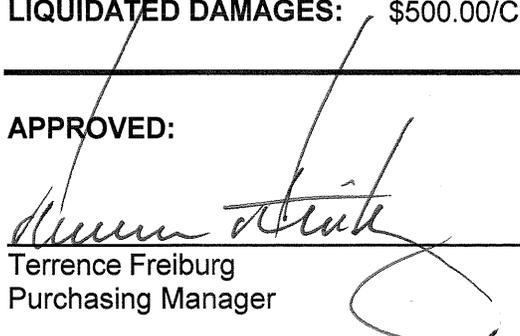
**TOTAL RECOMMENDED AWARD:** \$990,766.00

**TIME FOR COMPLETION:** 240 Consecutive Calendar Days

**LIQUIDATED DAMAGES:** \$500.00/Consecutive Calendar Day

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**APPROVED:**

  
Terrence Freiburg  
Purchasing Manager

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 <b>TCPN</b> The Comparative Purchasing Network		TCPN CONTRACT INFORMATION	
<b>Contract:</b>	Area Job Order Contract (AJOC)		
<b>Awarded Vendor:</b>	Basic Industries, Inc. (Area D)		
<b>TCPN Contract Number:</b>	R4539 (All PO's must reference "Per TCPN Contract")		
<b>Contract Expiration Date:</b>	December 31, 2007		
<b>Number of Annual Renewals:</b>	1		
<b>Approved Products/Services:</b>	A fixed-price, indefinite quantity, contract for multiple construction, renovation, repair, and alteration projects delivered on an on-call basis through delivery orders.		
<b>Order Placement:</b>	1. All PO's must be made out to the awarded vendor and reference "Per TCPN Contract." 2. PO's must be sent to the TCPN office by fax, email or mail. 3. TCPN will review PO for compliance and forward to vendor on same day received.		
<b>Pricing:</b>	Based on coefficient applied to RSMean Unit Price Book for Facilities Construction.		
<b>Other:</b>			
<b>Other:</b>			
<b>Online Ordering Availability:</b>	Not available		
<b>Freight/Delivery:</b>			
<b>Vendor Contact:</b>	<b>Corporate Office</b> Rich Barrick, AJOC Manager Basic Industries Inc. 3640 W. 12th St. Houston, TX 77008 Phone: 713-671-9036 ext. 331 rbarrick@basicidiq.com	<b>Area D - El Paso Office</b> Eddie Linss Golden Key Office Plaza 1200 Golden Key Circle STE 369 El Paso, TX 79925 915-757-6875 Office 915-726-8602 Cell elinss@basicidiq.com	<b>Area D - Midland Office</b> Debra Lindsey 4500 W. Illinois, Ste 303 Midland, Texas 79703 Office: 432-218-7697 Cell: 432-386-6804 dlindsey@basicidiq.com
<b>Vendor Website:</b>	<a href="http://www.basicindustries.com">http://www.basicindustries.com</a>		
<b>Vendor MWBE/HUB Status:</b>	Not Certified		
<b>TCPN Authorizing Statutes:</b>	Texas Government Code, Title 7. Intergovernmental Relations, Chapter 791 Interlocal Cooperation Contracts, Subchapter B, General Interlocal Contracting Authority, Subchapter C, Specific Interlocal Contracting Authority. Arizona Revised Statutes 41-2631 et seq; 41-2632 et seq.; 15-213 et seq; A.A.C. R7-2-1101 et seq. and A.A.C. R7-2-1191 et seq.		
<b>TCPN Order Processing:</b>	Tel: 713-744-6356 or Toll-free: 888-884-7695 Fax: 713-744-0648 or Toll-free fax: 800-458-0099 Email: <a href="mailto:tcpn@tcpn.org">tcpn@tcpn.org</a>		

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**City of El Paso  
Central Fire Station HVAC  
Scope of Work**

**Best Value Procurement**

**Solicitation No. 2007-098**

**Base Bid:**

Remove and replace Chiller, Cooling Tower, Boiler, Air Handlers, Mechanical Rooms Ductwork, Pumps and all related chill and hot water material and equipment. Provide and Install Energy Management System (EMS) that will interphase with the City's existing system. Provide and install chemical treatment for chill and hot water system.

Upgrade electrical system by replacing all power wiring to air conditioning equipment. Replace circuit breakers on equipment with larger motor size than original installation. Provide power to the EMS and chemical treatment.

Replace doors and windows. Windows shall be double glaze with reflective surface. Install new roller shades.

**PROJECT SPECIAL INSTRUCTIONS:**

Bidders shall note that the project will be completed according to the dates specified in a written Notice to Proceed. Liquidated damages will apply for failure to complete

The above Section Descriptions are general in nature, they do not necessarily describe all the pertinent details of the project. The successful bidder will be responsible for completing the project requirements in accordance with the Scope of Work, Plan Drawings and Technical Specifications that form the parts of the Contract Documents.

**This is a Unit Price Project.**

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July 20, 2007

**Mr. Luis Diaz**  
Engineering Associate  
**The City of El Paso**  
Engineering Department  
#2 Civic Center Plaza, 4th Floor  
El Paso, Texas 79901

Subject: **Construction Services Proposal**  
**Central Fire Station – HVAC Improvements (Revised)**  
**201 South Florence**  
**El Paso, Texas**  
**BI File No. 15-1800-0M**

Dear Sir:

Basic Industries, Inc. (BI) is pleased to provide this revised proposal for the subject project. This revised proposal was prepared using the scope of work detailed in the construction drawings and specifications prepared by SGB Engineering, Inc. "Central Fire Station Heating and Cooling Improvements" dated April, 2007. The timeframe for this project is expected to be 240 calendar days. This revised proposal is comprised of the following:

- Cost Summary (Revised)
- Unit Costs (Revised)
- Cost Summary (Alternate 1) Revised
- Unit Costs (Alternate 1) Revised

We have included the testing and balancing of the HVAC system in this revised proposal and have excluded any possible asbestos abatement. Should you have any questions, or need further information, please feel free to contact us.

Respectfully,

sent via email with signed  
original to follow

Eddie Linss  
Senior Project Manager  
Basic Industries, Inc.

Attachments:

1. Cost Summary (Revised)
2. Unit Costs (Revised)
3. Cost Summary (Alternate 1) Revised
4. Unit Costs (Alternate 1) Revised

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<b>Means Based Pricing (Modified by City Cost Index)</b>	\$	1,101,684
<b>Bid Coefficient (Means Based Pricing Only)</b>	77.0%	\$ (253,387)
<b>Subtotal</b>	\$	<b>848,297</b>

**Non Pre-Priced Items (Below-Listed Items Not Addressed W/ RS Means)**

Chemical Treatment Station, Chemicals and Testing	\$	9,500
Concrete Allowance	\$	500
	\$	<u>10,000</u>

Overhead	\$	1,500
Profit	\$	1,000

**Subtotal** \$ 12,500

**Total** \$ **860,797**

**TCPN AJOC<sup>SM</sup> Contract Factors**

<b>Project Size</b>	0.0%	\$ -
<b>Distance</b>	0.0%	\$ -
<b>Time of Performance</b>	0.0%	\$ -
<b>Annual Volume</b>	0.0%	\$ -
<b>Utilization of Prevailing Wage Scales</b>	0.0%	\$ -

**Permitting Fees (Allowance/Pass Through)** \$ -

**Subtotal** \$ -

**Adjusted Total** \$ **860,797**

**Payment and Performance Bonds** 2.50% \$ 21,520

**Final Total** \$ 882,317

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
0	01 250 400 0550	Cut & patch to match existing construction, add, maximum, add to construction costs for particular job requirements	Costs	5.0%	9.0%			
0	01 250 400 1450	Material handling & storage limitation, add, maximum, add to construction costs for particular job requirements	Costs	6.0%	7.0%			
0	01 250 400 1750	Protection of existing work, add, maximum, add to construction costs for particular job requirements	Costs	5.0%	7.0%			
0	01 250 500 1200	Subcontractor availability, shortage, add, modifications to total project cost summaries	Project				12.0%	12.0%
72	01 310 700 0160	Field Personnel, general purpose laborer, average	Week	0.00	60,380.38	0.00	60,380.38	94,092.75
18	01 310 700 0220	Field Personnel, project manager, maximum	Week	0.00	26,416.42	0.00	26,416.42	41,511.51
36	01 310 700 0280	Field Personnel, superintendent, maximum	Week	0.00	49,059.06	0.00	49,059.06	76,733.40
4	01 590 600 2500	Rent crane truck mounted, hydraulic, 25 ton capacity	Week+	0.00	0.00	14,560.00	14,560.00	16,016.00
6	02 220 350 0725	Rubbish handling, dumpster, 20 C.Y., 8 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	Week	5,929.26	0.00	0.00	5,929.26	6,522.19
1	02 220 350 0910	Rubbish handling, dumpster, alternate pricing method, delivery, average for all sizes, cost to be added to demolition cost.	Ea.	93.59	0.00	0.00	93.59	102.94
4	02 220 350 0920	Rubbish handling, dumpster, alternate pricing method, haul, average for all sizes, includes one dump per week, cost to be added to demolition cost.	Ea.	1,120.41	0.00	0.00	1,120.41	1,232.45
	02 220 350 0950	Rubbish handling, dumpster, alternate pricing method, disposal fee per ton, average for all sizes, cost to be added to demolition cost.	Ton	1,447.63	0.00	0.00	1,447.63	1,592.39
118	02 220 350 3040	Rubbish handling, 50' haul, loading & trucking, hand loading truck, cost to be added to demolition cost.	C.Y.	0.00	2,746.05	1,281.95	4,028.00	5,917.63
16	05 120 560 0450	Steel plate, structural, for connections & stiffeners, 3/4" T, shop fabricated, incl shop primer	S.F.	701.56	0.00	0.00	701.56	771.72
	05 120 680 3880	Structural steel project, total material cost, shop fab'd, primed, delivered, (included in project material cost, above)	Ton	7,117.08	0.00	0.00	7,117.08	7,828.79
20	13 720 065 5420	Detection Systems, smoke detector, duct type, addressable, excl. wires & conduit	Ea.	7,722.44	2,152.45	0.00	9,874.89	11,863.13
20	13 832 200 0120	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), duct temperature	Ea.	0.00	0.00	0.00	6,944.00	7,616.00
32	13 832 200 0172	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water temperature (see 15120 for well tap add)	Ea.	0.00	0.00	0.00	19,712.00	21,504.00

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
32	13 832 200 0174	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water flow (see 15120 for circuit sensor add)	Ea.	0.00	0.00	0.00	71,680.00	78,848.00
32	13 832 200 0176	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), water pressure differential (see 15120 for tap add)	Ea.	0.00	0.00	0.00	29,388.80	32,435.20
18	13 832 200 2210	Control Components/DDC Systems, status (alarms), digital output (avg. 50' run in 1/2" EMT), start/stop	Ea.	0.00	0.00	0.00	5,765.76	6,350.40
18	13 832 200 2220	Control Components/DDC Systems, status (alarms), digital output (avg. 50' run in 1/2" EMT), on/off (maintained contact)	Ea.	0.00	0.00	0.00	9,878.40	10,886.40
2	13 832 200 3100	Control Components/DDC Systems, subcontractor's quote incl. material & labor, controller MUX panel, 48 point, incl. function boards	Ea.	0.00	0.00	0.00	9,912.00	10,920.00
2	13 832 200 3229	Control Components/DDC Systems, subcontractor's quote incl. material & labor, D.D.C controller (avg. 50' run in conduit), mechanical room, 32 point controller, incl. 120V/1 phase power supply	Ea.	0.00	0.00	0.00	10,248.00	11,256.00
1	13 832 200 3282	Control Components/DDC Systems, subcontractor's quote incl. material & labor, host computer (avg. 50' run in conduit), package complete with PC, keyboard, printer, color CRT, modem & basic software	Ea.	0.00	0.00	0.00	9,212.00	10,108.00
1	13 832 200 4200	Control Components/DDC Systems, front end costs, color graphics software	Ea.	0.00	0.00	0.00	3,668.00	4,060.00
1,350	13 832 200 4400	Control Components/DDC Systems, front end costs, communications trunk cable	L.F.	0.00	0.00	0.00	4,823.28	5,307.12
55	13 832 200 4700	Control Components/DDC Systems, front end costs, startup, checkout labor	Point	0.00	0.00	0.00	6,468.00	7,084.00
15	13 832 200 5010	Control Components/DDC Systems, communications bus (data transmission cable), #18 twisted shielded pair in 1/2" EMT conduit	C.L.F.	0.00	0.00	0.00	5,376.00	5,880.00
6	13 838 200 2100	Control Components, gauges, pressure or vacuum, 2" dia. dial	Ea.	280.63	176.67	0.00	457.29	582.86
6	13 838 200 4120	Control Components, thermometers, dial type, liquid type, union connection, 3-1/2" dia.	Ea.	3,518.29	176.67	0.00	3,694.96	4,120.59
1	13 851 350 0140	Tank Leak Detection Systems, for hydrocarbons & hazardous liquids/vapors, controller, data acquisition, for use with all probes, 24 channel, incl. printer, modem, RS232 port	Ea.	2,945.00	0.00	0.00	2,945.00	3,239.50

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
1	15 055 300 0297	Boiler blowdown, selective demolition	Ea.	0.00	42.63	0.00	42.63	65.69
1	15 055 300 0350	Boiler, gas and or oil or solid, 160 thru 2000 MBH, selective demolition	Ea.	0.00	901.51	0.00	901.51	1,397.69
8	15 055 300 0410	Central station air handler, 17.5 thru 30 ton, selective demolition	Ea.	0.00	3,410.37	0.00	3,410.37	5,311.24
1	15 055 300 0700	Cooling tower, up thru 400 ton, selective demolition	Ea.	0.00	663.90	0.00	663.90	1,027.31
9,500	15 055 300 1570	Ductwork, metal; steel and sst, fabricated, selective demolition	Lb.	0.00	3,053.96	0.00	3,053.97	4,912.90
140	15 055 300 1640	Diffusers, registers or grills, 21" thru 36" max dimension, selective demolition	Ea.	0.00	708.35	0.00	708.35	1,125.14
6	15 055 300 2860	Heat pump, water source, single package, up thru 15 ton, selective demolition	Ea.	0.00	2,264.26	0.00	2,264.26	3,522.19
14	15 055 300 3000	HVAC, mechanical equipment, light items; unit is weight, not cooling, selective demolition	Ton	0.00	5,283.28	0.00	5,283.28	8,218.44
1	15 055 300 8020	Water chiller, 110 thru 500 ton, selective demolition	Ea.	0.00	2,480.91	0.00	2,480.91	3,843.66
1	15 055 600 0420	Air compressor, 10 H.P. thru 15 H.P., selective demolition	Ea.	0.00	240.40	0.00	240.40	373.18
13,785	15 080 200 3170	Insulation, ductwork, blanket type, fiberglass, flexible, FRK vapor barrier wrap, .75 lb. density, 1-1/2" thick	S.F.	6,134.63	13,487.05	0.00	19,621.68	28,828.31
215	15 080 600 4304	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 2-1/2" iron pipe size, includes sealant	L.F.	1,387.36	745.25	0.00	2,132.61	2,736.22
115	15 080 600 4306	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 3" iron pipe size, includes sealant	L.F.	751.11	422.73	0.00	1,173.84	1,503.07
40	15 080 600 4308	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 4" iron pipe size, includes sealant	L.F.	348.16	178.35	0.00	526.51	672.86
15	15 080 600 4324	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 2-1/2" iron pipe size, includes sealant	L.F.	1,815.10	790.33	0.00	2,605.43	3,275.26

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
115	15 080 600 4326	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 3" iron pipe size, includes sealant	L.F.	1,000.97	446.84	0.00	1,447.81	1,830.00
40	15 080 600 4328	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 4" iron pipe size, includes sealant	L.F.	387.43	191.76	0.00	579.19	739.82
100	15 080 600 4504	Insulation, pipe fitting (price copper tube one size less than I.P.S.),cellularglass, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 2-1/2" iron pipe size, includes fabric and mastic	Ea.	903.13	542.31	0.00	1,445.44	1,875.39
100	15 080 600 4524	Insulation, pipe fitting (price copper tube one size less than I.P.S.),cellularglass, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 2-1/2" iron pipe size, includes fabric and mastic	Ea.	994.75	575.85	0.00	1,570.60	2,036.28
45	15 080 600 4526	Insulation, pipe fitting (price copper tube one size less than I.P.S.),cellularglass, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 3" iron pipe size, includes fabric and mastic	Ea.	538.93	278.00	0.00	816.94	1,047.88
55	15 080 600 4528	Insulation, pipe fitting (price copper tube one size less than I.P.S.),cellularglass, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 2" wall, 4" iron pipe size, includes fabric and mastic	Ea.	889.06	395.90	0.00	1,284.96	1,624.86
200	15 107 420 2180	Pipe, copper, tubing, solder, 3/4" diameter, type L, includes coupling & clevis hanger 10' O.C.	L.F.	1,465.95	491.99	0.00	1,957.94	2,364.51
45	15 107 460 0120	Elbow, 90 Deg., copper, wrought, copper x copper, 3/4"	Ea.	96.01	443.42	0.00	539.43	797.91
425	15 107 620 0610	Pipe, steel, black, threaded, 2" diameter, schedule 40, Spec. A-53, includes coupling and clevis type hanger sized for covering, 10' OC	L.F.	3,810.50	2,239.46	0.00	6,049.96	7,645.78

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
225	15 107 620 2348	Pipe, steel, black, welded, 3" diameter, schedule 40, A-53 gr. A/B, includes hangers	L.F.	3,695.97	1,761.09	317.52	5,774.59	7,185.11
80	15 107 620 2349	Pipe, steel, black, welded, 4" diameter, schedule 40, A-53 gr. A/B, includes hangers	L.F.	1,879.56	710.03	127.23	2,716.82	3,347.21
200	15 107 640 0140	Elbow, 90 Deg., steel, cast iron, black, straight, threaded, standard weight, 2"	Ea.	3,141.33	3,759.80	0.00	6,901.13	9,130.10
32	15 110 160 1520	Valves, bronze, ball, threaded, 150 lb., 3"	Ea.	7,497.31	751.40	0.00	8,248.71	9,414.40
8	15 110 160 1900	Valves, bronze, check, swing, regrinding disc, threaded, class 150, 2"	Ea.	1,811.50	135.30	0.00	1,946.80	2,201.75
8	15 110 160 5680	Valves, bronze, relief, pressure & temperature, self-closing, threaded, 2", ASME	Ea.	6,701.51	93.93	0.00	6,795.43	7,550.56
1	15 120 120 0100	Air control, air separator, 3" diameter, includes strainer	Ea.	1,832.44	85.26	0.00	1,917.70	2,134.49
1	15 120 120 0120	Air control, air separator, 4" diameter, includes strainer	Ea.	2,617.78	113.21	0.00	2,730.99	3,089.21
64	15 120 250 2240	Dielectric unions, female I.P.T. to sweat, 175 psi maximum pressure, 2" pipe size, includes standard gaskets for water and air	Ea.	7,455.43	1,332.84	0.00	8,788.27	10,267.32
1	15 120 320 3000	Expansion tanks, steel, liquid expansion, rubber diaphragm, size is acceptable capacity, 19 gallon capacity, ASME	Ea.	2,748.66	27.95	0.00	2,776.62	3,009.55
1	15 120 320 3020	Expansion tanks, steel, liquid expansion, rubber diaphragm, size is acceptable capacity, 31 gallon capacity, ASME	Ea.	3,010.44	42.63	0.00	3,053.07	3,409.33
20	15 120 840 1040	Strainer, Y type, iron body, flanged, 125 lb., 3" pipe size	Ea.	2,526.15	1,509.51	0.00	4,035.66	5,122.70
20	15 120 840 1060	Strainer, Y type, iron body, flanged, 125 lb., 4" pipe size	Ea.	4,607.29	2,264.26	0.00	6,871.55	8,601.38
3	15 140 100 4140	Backflow preventer, reduced pressure principle, corrosion resistant, automatic operation, ball valves, threaded, 1" pipe size, includes valves and four test cocks	Ea.	1,044.49	39.83	0.00	1,084.33	1,221.90
	15 180 200 5090	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 2 H.P., to 50 GPM, 2" size	Ea.	8,638.66	293.52	0.00	8,932.18	9,977.74
	15 180 200 5410	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 5 H.P., to 350 GPM, 4" size	Ea.	8,638.66	447.26	0.00	9,085.92	10,257.28
2	15 180 200 5420	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 7-1/2 H.P., to 350 GPM, 4" size	Ea.	8,965.88	447.26	0.00	9,413.14	10,582.28
2	15 180 200 5520	Pump, circulating, cast iron, base mounted, coupling guard, bronze impeller, flanged joints, 10 H.P., to 600 GPM, 5" size	Ea.	10,863.77	651.33	0.00	11,515.10	13,026.37
300	15 180 700 4420	Refrigeration specialties, refrigerant, R-22, 50 lb. disposable cylinder	Lb.	1,264.39	0.00	0.00	1,264.39	1,390.82

CITY CLERK DEPT.  
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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
1	15 510 110 1010	Boiler blowdown system, auto/manual, to 2000 MBH	Ea.	4,482.94	90.85	0.00	4,573.79	5,046.55
1	15 510 400 2340	Boiler, gas fired, natural or propane, cast iron, steam, gross output, 2170 MBH, includes standard controls and insulated jacket	Ea.	20,156.88	2,725.50	0.00	22,882.38	26,729.04
1	15 620 600 0120	Water chiller, screw liquid chiller, air cooled, insulated evaporator, 130 ton, insulated evaporator	Ea.	81,151.06	4,996.76	0.00	86,147.81	97,372.79
100	15 640 400 3500	Cooling tower, for pumps and piping, add	TonAC	5,366.44	1,341.79	0.00	6,708.23	7,985.65
1	15 640 400 6140	Cooling tower, packaged unit, stainless steel, induced draft, crossflow, vertical, belt drive, 111 ton, includes standard controls, excludes pumps and piping	Ea.	18,324.43	1,195.03	0.00	19,519.46	22,113.65
1	15 640 400 9000	Cooling tower, minimum labor/equipment charge	Job	0.00	510.16	0.00	510.16	796.69
8	15 760 300 1050	Direct expansion, direct expansion for use w/air cooled condensing, 15 ton cooling, includes filters and controls	Ea.	46,177.57	2,841.23	0.00	49,018.80	55,223.22
0	15 760 300 1500	Direct expansion, direct expansion for use w/air cooled condensing, for hot water coil, add	Ea.	40.0%	10.0%			
0	15 810 100 0053	Ductwork, fabricated rectangular, 15' to 20' high, includes fittings, joints, supports and allowance for a flexible connection, excludes insulation, add to labor for elevated installation of fabricated ductwork			12.0%			
9,950	15 810 100 0580	Ductwork, fabricated rectangular, galvanized steel, over 5000 lb., includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	Lb.	8,074.53	67,031.58	0.00	75,106.10	115,808.16
0	15 810 100 1200	Ductwork, fabricated rectangular, for high pressure ductwork, add	Lb.		40.0%			
	15 810 100 1210	Ductwork, fabricated rectangular, for welded ductwork, add	Lb.		85.0%			
	15 810 100 1224	New item, fabricated rectangular, for 40% fittings, add, for 40% fittings, add	Lb.		34.0%			
	15 830 100 5540	Fans, industrial exhauster, 2000 CFM, 3 H.P.	Ea.	2,519.61	202.67	0.00	2,722.28	3,096.53
	15 850 700 1360	Register, air supply, ceiling/wall, anodized aluminum, adjustable curved face bars, one or two way deflection, 24" x 24", includes opposed blade damper	Ea.	21,622.83	2,240.50	0.00	23,863.33	27,346.44
	15 955 100 1100	Balancing, air, heating and ventilating unit, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	3,046.40	3,360.00
	15 955 100 1400	Balancing, air, heating and ventilating equipment, roof exhaust fan, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	170.24	187.04
140	15 955 100 3000	Balancing, air conditioning equipment, supply, return, exhaust, registers and diffusers, average ceiling height, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	7,134.40	7,840.00

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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
1	15 955 900 0080	Balancing, water, boiler, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	303.52	333.76
1	15 955 900 0200	Balancing, water, chiller, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	369.60	403.20
1	15 955 900 0500	Balancing, water, cooling tower, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	280.00	308.00
8	15 955 900 0600	Balancing, water, fan coil unit, unit ventilator, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	622.72	685.44
9	15 955 900 1000	Balancing, water, pumps, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	1,713.60	1,874.88
18	16 055 300 1850	Wire, THW-THWN-THHN, #10, removed from in place conduit, to 15' high	C.L.F.	0.00	104.44	0.00	104.44	161.43
1	16 055 400 2710	Combination control unit, 5 HP, NEMA 1, remove	Ea.	0.00	39.83	0.00	39.83	60.80
13	16 060 800 0330	Ground wire, copper wire, bare solid, #12	C.L.F.	219.24	261.19	0.00	480.43	638.81
6	16 060 800 0360	Ground wire, copper wire, bare solid, #6	C.L.F.	478.73	149.13	0.00	627.86	763.75
18	16 120 900 0040	Wire, copper solid, 600 volt, #10, type THW, in raceway	C.L.F.	492.47	474.52	0.00	966.99	1,284.07
550	16 132 205 5020	Electric metallic tubing (EMT), 3/4" diameter, to 15' high, incl 2 terminations, 2 elbows & 11 beam clamps per 100 LF	L.F.	669.50	1,153.10	0.00	1,822.59	2,502.22
45	16 132 205 5220	Electric metallic tubing (EMT), field bends, 45 Deg. to 90 Deg., 3/4" diameter	Ea.	0.00	152.84	0.00	152.84	235.23
	16 132 205 6220	EMT couplings, set screw, steel, 3/4" diameter, to 15' H	Ea.	187.50	0.00	0.00	187.50	206.25
	16 132 205 7020	EMT to conduit adapters, (compression), 3/4" diameter, to 15' H	Ea.	554.64	339.64	0.00	894.28	1,132.67
	16 136 720 0680	Pull boxes & cabinets, enclosures fiberglass, small, screw cover, 5-1/2"H x 4"W x 4-15/16"D, NEMA 4X	Ea.	848.16	274.23	0.00	1,122.39	1,353.96
	16 220 900 1110	Variable frequency drives, custom-engineered, 460 volt, 5 HP motor size	Ea.	9,718.49	1,446.61	0.00	11,165.11	13,007.02
	16 220 900 1120	Variable frequency drives, custom-engineered, 460 volt, 7.5 HP motor size	Ea.	7,853.33	1,160.09	0.00	9,013.41	10,385.78
	16 410 800 9010	Disconnect switch, 3 pole fusible, 30 amp, to 10 HP motor, 600 volt	Ea.	657.06	170.52	0.00	827.58	985.25
	16 440 660 0080	Motor starter, magnetic, FVNR, size 00, 480 volt, 2 HP, NEMA 1, incl enclosure & heater	Ea.	234.29	77.57	0.00	311.86	378.06
<b>Totals</b>				<b>\$370,129.90</b>	<b>\$284,832.68</b>	<b>\$16,286.70</b>	<b>\$877,966.01</b>	<b>\$1,101,684.37</b>

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<b>Means Based Pricing (Modified by City Cost Index)</b>		\$	137,408
<b>Bid Coefficient (Means Based Pricing Only)</b>	77.0%	\$	(31,604)
		<b>Subtotal</b>	<b>\$ 105,804</b>

**Non Pre-Priced Items (Below-Listed Items Not Addressed W/I RS Means)**

	\$	-
	\$	-
	<u>\$</u>	<u>-</u>
Overhead	\$	-
Profit	\$	-
	<b>Subtotal</b>	<b>\$ -</b>
	<b>Total</b>	<b>\$ 105,804</b>

**TCPN AJOC<sup>SM</sup> Contract Factors**

<b>Project Size</b>	0.0%	\$	-
<b>Distance</b>	0.0%	\$	-
<b>Time of Performance</b>	0.0%	\$	-
<b>Annual Volume</b>	0.0%	\$	-
<b>Utilization of Prevailing Wage Scales</b>	0.0%	\$	-

**Permitting Fees (Allowance/Pass Through)**

	\$	-
	<b>Subtotal</b>	<b>\$ -</b>

**Adjusted Total** \$ 105,804

**Payment and Performance Bonds**

	2.50%	\$	2,645
		<b>Final Total</b>	<b>\$ 108,449</b>

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CITY CLERK DEPT.

**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements - Alternate 1 (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
0	01 250 400 0550	Cut & patch to match existing construction, add, maximum, add to construction costs for particular job requirements	Costs	5.0%	9.0%			
0	01 250 400 1450	Material handling & storage limitation, add, maximum, add to construction costs for particular job requirements	Costs	6.0%	7.0%			
0	01 250 500 1200	Subcontractor availability, shortage, add, modifications to total project cost summaries	Project				12.0%	12.0%
1,000	05 090 150 2200	Bolt, hex head, plain steel, 3/4" dia x 2" L, A307, incl nut & washer	Ea.	972.32	2,246.76	0.00	3,219.08	5,278.31
1,000	06 090 800 5400	Washers, 2" x 2" x 1/8"	Ea.	373.97	0.00	0.00	373.97	411.37
2,000	15 060 300 2720	Pipe hanger / support, rods, carbon steel, continuous thread, 7/8" thread size	L.F.	3,789.54	2,429.64	0.00	6,219.18	7,925.29
734	15 080 600 4306	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 3" iron pipe size, includes sealant	L.F.	4,565.73	2,521.62	0.00	7,087.35	9,059.77
734	15 080 600 4308	Insulation, pipe (price copper tube one size less than I.P.S.), cellular glass, closed cell foam, all service jacket, sealant, 0 water vapor transmission, working temperature (-450 Deg.F to +900 Deg.F), 1-1/2" wall, 4" iron pipe size, includes sealant	L.F.	7,659.61	3,850.27	0.00	11,509.88	14,683.77
734	15 107 620 2348	Pipe, steel, black, welded, 3" diameter, schedule 40, A-53 gr. A/B, includes hangers	L.F.	11,482.94	5,369.23	1,035.82	17,887.99	22,216.63
734	15 107 620 2349	Pipe, steel, black, welded, 4" diameter, schedule 40, A-53 gr. A/B, includes hangers	L.F.	20,675.19	7,664.33	1,469.53	29,809.05	36,661.95
40	15 107 660 0100	Elbow, 90 Deg., steel, cast iron, black, straight, flanged, standard weight, 3" pipe size, add 1 gasket and bolt set (material only) for each joint, includes make-up labor, excludes gasket & bolt sets	Ea.	7,529.22	1,149.51	0.00	8,678.73	10,053.43
46	15 107 660 0110	Elbow, 90 Deg., steel, cast iron, black, straight, flanged, standard weight, 4" pipe size, add 1 gasket and bolt set (material only) for each joint, includes make-up labor, excludes gasket & bolt sets	Ea.	10,722.91	1,802.63	0.00	12,525.54	14,577.26
12	15 107 660 0390	Tee, steel, cast iron, black, straight, flanged, standard weight, 3" pipe size, add 1 gasket and bolt set (material only) for each joint, includes make-up labor, excludes gasket & bolt sets	Ea.	2,797.28	540.79	0.00	3,338.07	3,912.49

CITY CLERK DEPT.  
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**CostWorks 2007 Quarter 2 - Central Fire Station Heating & Cooling Improvements - Alternate 1 (Revised)**

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
12	15 107 660 0400	Tee, steel, cast iron, black, straight, flanged, standard weight, 4" pipe size, add 1 gasket and bolt set (material only) for each joint, includes make-up labor, excludes gasket & bolt sets	Ea.	4,248.28	752.40	0.00	5,000.68	5,811.11
52	15 107 660 0650	Gasket and bolt set, for flanges, 150 lb., 3" pipe size	Ea.	1,040.38	821.90	0.00	1,862.28	2,424.47
58	15 107 660 0670	Gasket and bolt set, for flanges, 150 lb., 4" pipe size	Ea.	2,205.16	1,272.82	0.00	3,477.98	4,391.73
<b>Totals</b>				<b>\$78,062.53</b>	<b>\$30,421.89</b>	<b>\$2,505.35</b>	<b>\$110,989.77</b>	<b>\$137,407.57</b>

CITY CLERK DEPT.  
07 JUL 30 PM 4:12

**SGB ENGINEERING, INC.**  
**CONSULTING MECHANICAL ENGINEERS**

November 09, 2006

Mr. Javier Reyes, P.E.  
Engineering Division Manager  
City of El Paso - Engineering Department  
2<sup>nd</sup> Civic Center Plaza  
El Paso, Tx. 79901

Re: JUSTIFICATION LETTER FOR LIQUIDATED DAMAGES  
CENTRAL FIRE STATION HEATING AND COOLING IMPROVEMENTS

Dear Mr. Reyes:

The Contract Documents for the referenced project define Liquidated Damages to be \$500.00 per calendar day. This amount was determined by the following estimate.

Daily Cost of City's Project Representative.....	\$ 200.00
Daily Cost of Project Engineer.....	\$ 300.00
Based on two hours per calendar day for site visits and coordination with City Project Representative and Contractor.	
<hr/> Total per Calender Day.....	\$ 500.00

As always, we appreciate the opportunity. Please call my office if you have any questions or require additional information.

GOD BLESS OUR TROOPS,

S. González-Barney, P.E.  
President

07 JUL 30 PM 4:12

CITY CLERK DEPT.