

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

DEPARTMENT: Engineering

AGENDA DATE: November 13, 2007

CONTACT PERSON/PHONE: R. Alan Shubert, City Engineer (X4423)
Terrence Freiberg, Purchasing Manager (X4313)

DISTRICT(S) AFFECTED: 3

SUBJECT:

Award of the El Paso Zoo South American Pavilion project to Basic Industries, Inc. in the amount of \$442,442.00.

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 El Paso Zoo South American Pavilion Project, Reference Number 2008-057.

BACKGROUND / DISCUSSION:

The El Paso Zoo is continuing to prepare for its certification and the South American Pavilion project is required to be underway by December 2007. Work will include roof repair, interior remodeling and renovation of the cooling system for the facility.

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 Engineering Department after discussions with the Basic Industries local representative.

PRIOR COUNCIL ACTION:

None

AMOUNT AND SOURCE OF FUNDING:

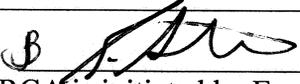
Funding available: PCP07O001-31135001-27114-508027 & PZO07001-31136001-27136-508027 & 52153027- 15445-52000; sourced from 1998A & 2006 Certificates of Obligation as well as Zoo Gate Revenue respectively.

BOARD / COMMISSION ACTION:

N/A

***** REQUIRED AUTHORIZATION *****

LEGAL: (if required) _____ **FINANCE:** (if required) _____

DEPARTMENT HEAD:  _____

(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: November 7, 2007
PROJECT: El Paso Zoo South American Pavilion Project
REFERENCE NO: 2008-057
ACCOUNT NO(S): PCP07ZO001-31135001-27114- 508027 & PZO07001-31136001-27136-508027 & 52153027-15445-52000
FUNDING SOURCE: 1998A & 2006 Certificates of Obligation as well as Zoo Gate Revenue
DEPARTMENT: Engineering
DISTRICT(S): 3 **LOCATION:** 401 E. Paisano Drive

AGENDA DATE: November 13, 2007 **CONTRACTOR:** Basic Industries, Inc.
AMOUNT: \$442,442.00

RECOMMENDATION:

Award of the El Paso South American Pavilion project to Basic Industries, Inc. in the amount of \$442,442.00.

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 El Paso Zoo South American Pavilion Project, Reference Number 2008-057.

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 low bid, lump-sum contract. The Financial Services and Engineering Departments recommend award as indicated to the lowest responsive, responsible bidder.

DESCRIPTION OR EXPLANATION:

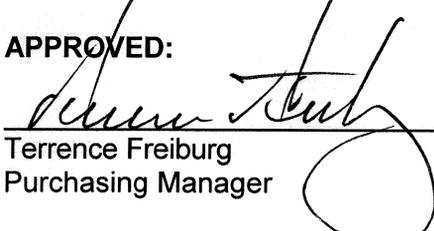
Base Bid I \$442,442

TOTAL RECOMMENDED AWARD: \$442,442.00

TIME FOR COMPLETION: 70 Consecutive Calendar Days

LIQUIDATED DAMAGES: \$550.00/Calendar Day

APPROVED:



Terrence Freiburg
Purchasing Manager

SCOPE OF WORK

SOUTH AMERICAN PAVILION PROJECT

The contractor shall remove existing roof and replace it with a new roof. New roof includes insulation and new roofing material. The contractor shall remove and replace existing heating, ventilation, and air conditioning system.



ENGINEERING DEPARTMENT

Excellence through Teamwork

memorandum

TO: Rick Talamo, CIP

FROM: Martin Noriega, CE Associate *mn*

DATE: November 5, 2007

SUBJECT: Zoo South American Pavilion-Liquidated Damages Justification

Construction Inspection	4 hrs/day = \$263.20
Project Engineer	1 hrs/day = \$65.80
Manager Time @ \$108.00/hr.	2 hrs/day = \$216.00
Total Liquidated Damages	\$550.00

November 5, 2007



Mr. Martin Noriega
Civil Engineer Associate
The City of El Paso
Engineering Department
#2 Civic Center Plaza, 4th Floor
El Paso, Texas 79901

Subject: **Construction Services Proposal**
 El Paso Zoo – South American Pavilion Renovations – Revision 3
 4001 East Paisano
 El Paso, Texas 79905
 BI File No. 15-1800-0S

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 Alvidrez Architecture, Inc. "El Paso Zoo Improvements – South American Pavilion Renovations" dated June, 2007 and the revisions discussed in the meetings on October 30th and November 2nd. The variations are the elimination of skylights designated by zoo personnel, the elimination of the painting of the ceilings (which will be done by zoo personnel), and the substitution of the HVAC components with standard efficiency instead of high efficiency, the elimination of the demolition of the existing rooftop units, and some adjustments to line items discussed in Friday morning's meeting.

As requested by you in a phone call this afternoon, I the added the cost to replace the insulation under the roof deck at approximately \$7,200 pending confirmation of materials to be used and increased the rubbish handling fees. The timeframe for this project has been reduced to ten weeks of field work, which will be dependent on the lead time for the HVAC units, in order to save a little bit more money. This revised proposal is comprised of the following:

- Revised Cost Summary
- Revised Unit Costs

We thank you for the opportunity to offer this revised proposal on this project, and we look forward to working with you for its successful execution and completion. Should you have any questions, or need further information, please feel free to contact us.

Respectfully,

A handwritten signature in black ink, appearing to read 'Eddie Linss', written in a cursive style.

Eddie Linss
El Paso Area Manager
Basic Industries, Inc.

Means Based Pricing (Modified by City Cost Index)		\$	586,195
Bid Coefficient (Means Based Pricing Only)	77.0%	\$	(134,825)
		Subtotal \$	451,370

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

Allowance for Replacement of Insulation Below the Roof	\$	7,200
	\$	-
	\$	7,200

Overhead	\$	1,080
Profit	\$	720

Subtotal \$ 9,000

Total \$ 460,370

TCPN AJOCSM Contract Factors

Project Size	0.0%	\$	-
Distance	0.0%	\$	-
Time of Performance	0.0%	\$	-
Annual Volume	-2.0%	\$	(9,207)
Utilization of Prevailing Wage Scales	0.0%	\$	-

Permitting Fees (Allowance/Pass Through)		\$	-
		Subtotal \$	(9,207)

Adjusted Total \$ 451,163

Payment and Performance Bonds	2.50%	\$	11,279
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One-time Discount		\$	(20,000)
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Final Total \$ 442,442

CostWorks 2007 Quarter 3 - El Paso Zoo - South American Pavilion Renovations REVISION 3

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 0850	Dust protection, add, maximum, add to construction costs for particular job requirements	Costs	4.0%	11.0%			
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%
10	01 310 700 0160	Field Personnel, general purpose laborer, average	Week	0.00	18,135.87	0.00	18,135.87	28,261.73
5	01 310 700 0220	Field Personnel, project manager, maximum	Week	0.00	15,868.88	0.00	15,868.88	24,936.82
10	01 310 700 0280	Field Personnel, superintendent, maximum	Week	0.00	29,470.78	0.00	29,470.78	46,095.33
52.5	01 540 750 0560	Scaffolding, steel tubular, regular, labor only to erect & dismantle, bldg interior, wall face, 6'-4" x 5' frames, 16' to 40' H, excl. planks	C.S.F.	0.00	7,299.69	0.00	7,299.69	12,060.35
160	01 540 750 2250	Scaffolding, steel tubular, regular, frame, rent/mo, 7'-6" H x 6' W	Ea.	1,893.94	0.00	0.00	1,893.94	2,083.34
120	01 540 750 2500	Scaffolding, steel tubular, regular, accessory, cross brace, rent/mo	Ea.	202.64	0.00	0.00	202.64	222.90
120	01 540 750 2550	Scaffolding, steel tubular, regular, accessory, guardrail post, rent/mo	Ea.	202.64	0.00	0.00	202.64	222.90
240	01 540 750 2850	Scaffolding, steel tubular, regular, accessory, plank, rent/mo, 2" x 10" x 16' L	Ea.	2,423.72	0.00	0.00	2,423.72	2,666.09
4	01 590 600 3100	Rent crane self-propelled, 4x4 telescoping boom 25 ton	Week+	0.00	0.00	20,260.25	20,260.25	22,286.28
8	02 220 350 0840	Rubbish handling, dumpster, 40 C.Y., 13 ton capacity, weekly rental, includes one dump per week, cost to be added to demolition cost.	Week	17,217.67	0.00	0.00	17,217.67	18,939.44
900	02 220 350 1080	Rubbish handling, dust partition, 4' x 8' panels, 2 x 4 frame, 6 mil polyethylene, cost to be added to demolition cost.	S.F.	551.30	680.10	0.00	1,231.39	1,729.94
180	02 220 350 2000	Rubbish handling, 50' haul, load, haul to chute and dumping into chute, cost to be added to demolition cost.	C.Y.	0.00	8,841.24	0.00	8,841.24	14,690.05

CostWorks 2007 Quarter 3 - El Paso Zoo - South American Pavilion Renovations REVISION 3

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
180	02 220 350 3040	Rubbish handling, 50' haul, loading & trucking, hand loading truck, cost to be added to demolition cost.	C.Y.	0.00	9,058.87	2,309.03	11,367.90	17,409.53
125	02 220 360 0400	Concrete sawing, concrete slabs, mesh reinforcing, up to 3" deep	L.F.	95.19	170.02	47.94	313.16	431.37
250	02 220 360 0420	Concrete sawing, concrete, existing slab, mesh reinforcing, for each additional inch of depth over 3"	L.F.	66.22	211.59	59.51	337.32	467.77
300	02 315 620 0650	Excavating, utility trench, common earth, 12 H.P., 8" wide, 18" deep, chain trencher, operator walking	L.F.	0.00	571.28	43.64	614.92	944.82
1	02 315 620 0900	Excavating, utility trench, common earth, minimum labor/equipment charge	Job	0.00	377.83	29.76	407.59	631.97
300	02 315 620 1700	Excavating, utility trench, common earth, 8" wide, 24" deep, backfill by hand, add	L.F.	0.00	888.66	67.45	956.10	1,545.92
175	02 510 780 2200	Copper tubing, 20' joints, 1" diameter, type K, excludes excavation or backfill	L.F.	3,447.67	449.62	0.00	3,897.29	4,458.93
135	02 550 466 4080	Steel pipe, tar coated and wrapped, plain end, natural gas distribution, 2" diameter, schedule 40, excludes excavation or backfill	L.F.	2,536.71	832.44	33.92	3,403.07	4,115.52
1,250	05 310 300 2600	Metal decking, steel, open type, wide rib, galvanized, under 50 Sq, 1-1/2" D, 20 ga	S.F.	4,118.17	831.23	49.59	4,998.99	6,126.09
1,250	07 060 110 1150	Roofing and siding demolition, deck, roof, metal decking	S.F.	0.00	1,057.93	297.56	1,355.48	2,072.89
2,200	07 060 110 1350	Roofing and siding demolition, deck, roof, plywood, to 1" thick	S.F.	0.00	864.48	0.00	864.48	1,396.46
6,250	07 060 110 3000	Roofing and siding demolition, roofing, built-up, 5-ply, excluding gravel	S.F.	0.00	7,745.53	0.00	7,745.53	12,657.33
30	07 060 110 4500	Roofing and siding demolition, skylight, to 10 S.F., remove ridge, hip, or verge	Ea.	0.00	1,459.94	0.00	1,459.94	2,403.00
204.5	07 550 500 0040	Modified Bitumen Roofing, base sheet, #15 glass fiber felt, fully mopped to deck	Sq.	4,248.92	2,818.68	411.08	7,478.67	10,085.26
6,250	07 550 500 1100	Modified Bitumen Roofing, SBS modified, granule surface cap sheet, polyester reinforced, 160 mils, mopped	S.F.	8,484.67	8,312.27	1,239.82	18,036.76	25,677.92
3,250	07 550 500 2000	Modified Bitumen Roofing, SBS modified, granular surface flashing, 160 mils	S.F.	4,412.03	6,876.52	988.55	12,277.09	18,269.24
63	08 620 800 0400	Skylights, plastic dome, flush or curb mounted, 10 or more units, nominal size under 10 SF, single, excl. curb	S.F.	2,876.58	611.27	0.00	3,487.85	4,083.99
108	08 620 800 1000	Skylights, plastic dome, flush or curb mounted, 10 or more units, 20 to 30 SF, single, excl. curb	S.F.	3,854.90	359.09	0.00	4,213.99	4,831.26

CostWorks 2007 Quarter 3 - El Paso Zoo - South American Pavilion Renovations REVISION 3

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
155	08 620 800 1300	Skylights, plastic dome, flush or curb mounted, 10 or more units, 30 to 65 SF, single, excl. curb	S.F.	5,891.76	393.55	0.00	6,285.30	7,118.10
0	08 620 800 1900	Skylights, plastic dome, flush or curb mounted, 10 or more units, for integral insulated 9" curbs, single, add		40.0%				
5,550	09 060 110 0220	Ceiling demolition, drywall, on metal frame, 2 layers, 5/8" gypsum board, remove	S.F.	0.00	5,032.70	0.00	5,032.70	8,220.08
1,250	09 060 130 1000	Walls and partitions demolition, drywall, nailed	S.F.	0.00	415.61	0.00	415.61	717.88
15	09 220 200 0100	Stucco, 3 coats, on masonry construction, no mesh incl., incl. lath	S.Y.	43.71	412.59	29.56	485.85	745.95
15	09 220 200 0300	Stucco, 3 coats, float finish, 3/4" thick, excl. lath, for trowel finish, add	S.Y.	0.00	34.46	0.00	34.46	55.77
15	09 220 200 0700	Stucco, for coloring & special finish, add, max	S.Y.	27.56	138.74	9.92	176.22	264.71
1,250	09 250 700 2250	Gypsum wallboard, on walls, water resistant, taped & finished (level 4 finish), 5/8" thick	S.F.	724.30	1,095.71	0.00	1,820.01	2,629.21
5,150	09 250 700 3250	Gypsum wallboard, on ceilings, water resistant, taped & finished (level 4 finish), 5/8" thick	S.F.	2,984.12	5,759.65	0.00	8,743.77	12,700.34
4	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	1,612.15	1,763.29
4	13 832 200 0140	Control Components/DDC Systems, subcontractor's quote incl. material & labor, analog inputs, sensors (avg. 50' run in 1/2" EMT), duct humidity, +/- 3%	Ea.	0.00	0.00	0.00	3,022.79	3,325.07
5	13 838 200 3620	Control Components, sensor, electric operated, humidity	Ea.	461.19	386.71	0.00	847.89	1,089.24
5	13 838 200 3680	Control Components, sensor, electric operated, temperature	Ea.	701.64	305.62	0.00	1,007.26	1,247.07
5	13 838 200 5040	Control Components, thermostats, electric, timed, 1 set back	Ea.	804.12	380.47	0.00	1,184.59	1,480.81
1	15 055 300 0670	Condensing unit, 11 thru 50 ton, selective demolition	Ea.	0.00	1,828.70	0.00	1,828.70	2,841.29
4,250	15 055 300 1570	Ductwork, metal; steel and sst, fabricated, selective demolition	Lb.	0.00	2,954.63	0.00	2,954.63	4,753.11
12	15 055 300 1630	Diffusers, registers or grills, up thru 20" max dimension, selective demolition	Ea.	0.00	93.94	0.00	93.94	150.16
14	15 055 300 1640	Diffusers, registers or grills, 21" thru 36" max dimension, selective demolition	Ea.	0.00	153.19	0.00	153.19	243.32
2	15 055 300 2128	Fans, 15 thru 30 H.P. or above 20,000 CFM, selective demolition	Ea.	0.00	353.65	0.00	353.65	565.23
1	15 055 300 2170	Flue shutter damper, selective demolition	Ea.	0.00	89.17	0.00	89.17	140.55

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Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
1	15 055 300 2340	Furnace, gas or oil, over 120 MBH, selective demolition	Ea.	0.00	235.77	0.00	235.77	377.83
2,850	15 080 200 3180	Insulation, ductwork, blanket type, fiberglass, flexible, FRK vapor barrier wrap, .75 lb. density, 2" thick	S.F.	2,336.68	6,071.20	0.00	8,407.88	12,481.17
5	15 180 700 4060	Refrigeration specialties, P-trap, suction line, soldered, 1-5/8"	Ea.	1,059.55	169.27	0.00	1,228.82	1,440.56
150	15 180 700 4420	Refrigeration specialties, refrigerant, R-22, 50 lb. disposable cylinder	Lb.	819.50	0.00	0.00	819.50	901.44
2	15 730 600 1100	Rooftop air conditioner, single zone, electric cool, gas heat, 3 ton cooling, 60 MBH heating, includes, standard controls, curb and economizer	Ea.	7,269.81	1,005.68	0.00	8,275.49	9,542.29
2	15 730 600 1140	Rooftop air conditioner, single zone, electric cool, gas heat, 5 ton cooling, 112 MBH heating, includes, standard controls, curb and economizer	Ea.	11,526.91	1,227.52	0.00	12,754.43	14,631.80
1	15 730 600 1160	Rooftop air conditioner, single zone, electric cool, gas heat, 10 ton cooling, 200 MBH heating, includes, standard controls, curb and economizer	Ea.	10,806.48	820.81	0.00	11,627.29	13,181.20
3	15 780 100 4020	Heat recovery package, air to air, enthalpy recovery wheel, 2000 max CFM	Ea.	20,728.79	1,007.16	0.00	21,735.95	24,454.38
1	15 780 100 4030	Heat recovery package, air to air, enthalpy recovery wheel, 4000 max CFM	Ea.	7,990.24	421.50	0.00	8,411.74	9,476.98
4,750	15 810 100 0570	Ductwork, fabricated rectangular, galvanized steel, 2000 to 5000 lb., includes fittings, joints, supports and allowance for a flexible connection, excludes insulation	Lb.	4,875.58	22,225.50	0.00	27,101.09	40,648.28
0	15 810 100 1284	Ductwork, elevated installation of prefabricated (purchased) ductwork, 15' to 20' high, add to labor			20.0%			
475	15 810 100 5430	Ductwork, spiral preformed, steel, galvanized, straight lengths, max. 10" S.P.W.G., 8" diameter, 26 Ga.	L.F.	1,635.68	1,636.76	0.00	3,272.44	4,400.84
34	15 810 100 5840	Ductwork, spiral preformed, steel, galvanized, connector, max. 10" S.P.W.G., 8" diameter	Ea.	169.99	300.09	0.00	470.08	667.75
4	15 850 300 1000	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 6" x 6", includes opposed blade damper	Ea.	271.51	96.72	0.00	368.23	448.58
2	15 850 300 1020	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 12" x 6", includes opposed blade damper	Ea.	231.78	50.48	0.00	282.25	333.54

CostWorks 2007 Quarter 3 - El Paso Zoo - South American Pavilion Renovations REVISION 3

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
12	15 850 300 1060	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 12" x 12", includes opposed blade damper	Ea.	1,430.39	382.67	0.00	1,813.06	2,164.66
6	15 850 300 1120	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 15" x 15", includes opposed blade damper	Ea.	1,301.26	230.33	0.00	1,531.58	1,792.29
10	15 850 300 1180	Diffuser, aluminum, ceiling, rectangular, 1 to 4 way blow, 24" x 24", includes opposed blade damper	Ea.	4,469.97	548.61	0.00	5,018.58	5,763.31
4	15 850 500 3960	Grille, aluminum, eggcrate, framed, 10" x 10" opening	Ea.	110.59	66.50	0.00	177.09	225.99
4	15 850 500 3970	Grille, aluminum, eggcrate, framed, 12" x 12" opening	Ea.	131.12	69.52	0.00	200.64	249.66
2	15 850 500 4050	Grille, aluminum, eggcrate, framed, 48" x 24" opening	Ea.	602.62	63.78	0.00	666.40	764.44
9	15 955 100 2800	Balancing, air conditioning equipment, rooftop heating and cooling unit, (Subcontractor's quote including material & labor)	Ea.	0.00	0.00	0.00	3,213.60	3,534.96
44	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	2,705.78	2,967.62
2,350	16 055 300 0200	Conduit, electric metallic tubing (EMT), 1/2" to 1" diameter, remove conduit to 15' high, incl fittings & hangers	L.F.	0.00	3,480.58	0.00	3,480.58	5,398.44
150	16 055 300 1850	Wire, THW-THWN-THHN, #10, removed from in place conduit, to 15' high	C.L.F.	0.00	1,936.00	0.00	1,936.00	2,992.42
2	16 060 800 0040	Grounding rod, copper clad, 8' long, 5/8" diameter	Ea.	48.01	214.61	0.00	262.62	382.58
4	16 060 800 0160	Grounding coupling, bronze, 5/8" diameter	Ea.	31.19	0.00	0.00	31.19	34.31
2	16 060 800 0210	Grounding drive studs, 5/8" diameter	Ea.	25.50	0.00	0.00	25.50	28.04
4	16 060 800 0240	Grounding clamp, bronze, 5/8" diameter	Ea.	28.21	73.75	0.00	101.96	144.25
1	16 060 800 0360	Ground wire, copper wire, bare solid, #6	C.L.F.	110.92	58.64	0.00	169.56	213.60
4	16 060 800 0370	Ground wire, copper wire, bare solid, #4	C.L.F.	708.57	296.22	0.00	1,004.79	1,242.50
1	16 060 800 0380	Ground wire, copper wire, bare solid, #2	C.L.F.	249.99	117.88	0.00	367.87	456.04
4	16 060 800 2100	Water pipe ground clamps, heavy duty, bronze, 1-1/4" to 2" diameter	Ea.	172.18	296.22	0.00	468.40	641.58
12.5	16 120 750 0550	Thermostat cable, no jacket, twisted, #18-3 conductor	C.L.F.	273.17	1,039.03	0.00	1,312.20	1,905.51
300	16 132 205 9170	PVC conduit, schedule 40, 3" diameter, to 15' H, incl terminations, fittings, & support	L.F.	3,169.19	2,657.05	0.00	5,826.24	7,550.27
10	16 132 205 9290	PVC conduit elbows, 3" diameter, to 15' H	Ea.	338.99	536.40	0.00	875.39	1,204.93
10	16 132 205 9530	PVC adapters, 3" diameter, to 15' H	Ea.	100.12	269.45	0.00	369.57	522.16

CostWorks 2007 Quarter 3 - El Paso Zoo - South American Pavilion Renovations REVISION 3

Qty	CSI Number	Description	Unit	Bare Mat.	Bare Labor	Bare Equip.	Total	Total Incl. O&P
1,150	16 132 205 5000	Electric metallic tubing (EMT), 1/2" diameter, to 15' high, incl 2 terminations, 2 elbows & 11 beam clamps per 100 LF	L.F.	1,085.21	3,997.45	0.00	5,082.66	7,287.23
1,250	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.	1,924.57	5,667.46	0.00	7,592.03	10,833.58
85	16 132 205 5200	Electric metallic tubing (EMT), field bends, 45 Deg. to 90 Deg., 1/2" diameter	Ea.	0.00	562.67	0.00	562.67	860.70
105	16 132 205 5220	Electric metallic tubing (EMT), field bends, 45 Deg. to 90 Deg., 3/4" diameter	Ea.	0.00	771.23	0.00	771.23	1,186.99
85	16 132 205 6200	EMT couplings, set screw, steel, 1/2" diameter, to 15' H	Ea.	177.31	0.00	0.00	177.31	195.04
115	16 132 205 6220	EMT couplings, set screw, steel, 3/4" diameter, to 15' H	Ea.	365.54	0.00	0.00	365.54	402.10
65	16 132 205 6500	EMT boxes connectors, set screw, steel, 1/2" diameter, to 15' H	Ea.	90.39	318.28	0.00	408.68	587.86
85	16 132 205 6520	EMT boxes connectors, set screw, steel, 3/4" diameter, to 15' H	Ea.	189.97	454.76	0.00	644.73	906.52
20	16 132 205 6880	EMT boxes connectors, insulated, set screw, 3" diameter, to 15' H	Ea.	2,284.65	435.26	0.00	2,719.91	3,214.37
24	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.	2,145.59	1,186.09	0.00	3,331.67	4,217.26
46	16 140 910 9000	Wiring devices, minimum labor/equipment charge	Job	0.00	6,813.04	0.00	6,813.04	10,428.12
1	16 410 200 2200	Circuit breaker, disconnect, 3 pole, 240 volt, 100 HP motor, enclosed (NEMA 1)	Ea.	2,773.04	737.53	0.00	3,510.56	4,130.94
8	16 440 700 2020	Circuit breakers, plug-in, 3 pole, 50 Amp	Ea.	1,039.68	628.71	0.00	1,668.39	2,126.61
1	16 440 720 2300	Panelboards, 3 phase 4 wire, main circuit breaker, 120/208 V, 400 amp, 42 circuits, NQOD, incl 20 A 1 pole plug-in breakers	Ea.	4,180.25	2,463.46	0.00	6,643.71	8,293.46
14	16 450 300 0100	Bus duct, copper, 3 pole 4 wire, weatherproof, feeder, 600 amp	L.F.	3,638.89	691.88	0.00	4,330.77	5,073.40
38	16 510 440 9000	Interior lighting fixtures, minimum labor/equip charge	Job	0.00	7,465.93	0.00	7,465.93	11,428.62
Totals				\$171,190.94	\$223,422.29	\$25,877.57	\$431,045.11	\$586,194.70