

Application to Commit Energy
Efficiency/Peak Demand
Reduction Programs
(Mercantile Customers Only)

Case No.: <u>12-2690-E</u>L-EEC

Mercantile Customer: Cincinnati Public Schools (SCPA)

Electric Utility: **Duke Energy**

Program Title or

Description: HVAC (CUSTOM)

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. 10-834-EL-POR

Completed applications requesting the cash rebate reasonable arrangement option (Option 1) in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider (Option 2) will also qualify for the 60-day automatic approval so long as the exemption period does not exceed 24 months. Rider exemptions for periods of more than 24 months will be reviewed by the Commission Staff and are only approved up the issuance of a Commission order.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible. Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of incomplete applications may result in a suspension of the automatic approval process or denial of the application.

Any confidential or trade secret information may be submitted to Staff on disc or via email at <u>ee-pdr@puc.state.oh.us</u>.

Section 1: Mercantile Customer Information

Name: Cincinnati Public Schools

Principal address: 2651 Burnet Avenue Cincinnati, Ohio 45219

Address of facility for which this energy efficiency program applies:

108 West Central Parkway Cincinnati Ohio 45202 (SPCA)

Name and telephone number for responses to questions:

Grady Reid Jr 513-287-1038

Electricity use by the customer (check the box(es) that apply):

- ✓ The customer uses more than seven hundred thousand kilowatt hours per year at the above facility. (See Appendix A)
- ☐ The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

Section 2: Application Information

- A) The customer is filing this application (choose which applies):
 - □ Individually, without electric utility participation.
 - ✓ Jointly with the electric utility.
- B) The electric utility is: **Duke Energy**
- C) The customer is offering to commit (check any that apply):
 - □ Energy savings from the customer's energy efficiency program. (Complete Sections 3, 5, 6, and 7.)
 - □ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)
 - ✓ Both the energy savings and the capacity savings from the customer's energy efficiency program. (Complete all sections of the Application.)

Section 3: Energy Efficiency Programs

A)	The	e customer's energy efficiency program involves (check those that apply):
		Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)).
		Installation of new equipment to replace equipment that needed to be replaced The customer installed new equipment on the following date(s):
	✓	Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s): July 2009
		Behavioral or operational improvement.
В)	Ene	ergy savings achieved/to be achieved by the energy efficiency program:
	1)	If you checked the box indicating that the project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) – (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:
		Annual savings:kWh
	2)	If you checked the box indicating that the customer installed new equipment to replace equipment that needed to be replaced, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by the higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:
		Annual savings:kWh
		Please describe any less efficient new equipment that was rejected in favor of the more efficient new equipment.
Revised (If you checked the box indicating that the project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by higher er 4, 2011

efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: 55,240 kWh savings (Refer to Appendix B for calculations and supporting documents).

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment.

4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined.

Section 4: Demand Reduction/Demand Response Programs

- A) The customer's program involves (check the one that applies):
 - ✓ Coincident peak-demand savings from the customer's energy efficiency program.
 - Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
 - □ Potential peak-demand reduction (check the one that applies):
 - □ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
 - ☐ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.
- B) On what date did the customer initiate its demand reduction program?

July 2009

C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

28.6 KW

Refer to Appendix B for calculations and supporting documentation

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic is by the

app		. All	applications, however, will be considered on a timely basis by the						
A)	The customer is applying for:								
	✓	Optio	on 1: A cash rebate reasonable arrangement.						
	OR								
		-	on 2: An exemption from the energy efficiency cost recovery anism implemented by the electric utility.						
	OR								
		Com	mitment payment						
В)	The	value	of the option that the customer is seeking is:						
	Option 1:		A cash rebate reasonable arrangement, which is the lesser of (show both amounts):						
			✓ A cash rebate of \$4,000.00. Refer to Appendix C.						
	Opt	ion 2:	An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.						
			An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)						
			OR						
			□ A commitment payment valued at no more than \$ (Attach documentation and						

calculations showing how this payment amount was determined.)

OR

Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

Total Resource Cost (TRC) Test.	The calculated TRC value is:	
(Continue to Subsection 1, then ski	ip Subsection 2)	

√	Utility Cost Test (UCT). The calculated UCT value is 10.19 (Skip to						
Subsection 2.) Refer to Appendix D for calculations and							
	supporting documents.						

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were	·
Our program costs were	
The incremental measure costs were	

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were \$62,100

The utility's program costs were \$2,096

The utility's incentive costs/rebate costs were \$4,000

Refer to Appendix D for calculations

Section 7: Additional Information

Please attach the following supporting documentation to this application:

Narrative description of the program including, but not limited to, make, model, and year of any installed and replaced equipment.

A copy of the formal declaration or agreement that commits the program or measure to the electric utility, including:

- 1) any confidentiality requirements associated with the agreement;
- 2) a description of any consequences of noncompliance with the terms of the commitment;
- 3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
- 4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,
- 5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

Refer to Rebate Offer Letter following this application

A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.



DUKE ENERGY
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202
513 629 5572 fax

September 7, 2012

Mr. Don Elbe Cincinnati Public Schools - **SCPA** 2651 Burnet Avenue Cincinnati, Ohio 45219

Subject: Your Application for a Duke Energy (Custom - HVAC) Mercantile Self-Direct Rebate

Dear Mr. Elbe:

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page two, a total rebate of \$4000.00 has been proposed for your HVAC project completed in the July 2009 calendar year. All Self Direct Rebates are contingent upon approval by the Public Utilities Commission of Ohio (PUCO).

At your earliest convenience, please indicate if you accept this rebate by

- providing your signature on page two
- completing the PUCO-required affidavit on page three.

Please return the documents to my attention via fax at 513-629-5572 or e-mail to SelfDirect@Duke-Energy.com. Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

At Duke Energy, we value your business and look forward to working with you on this and future energy efficiency projects. We hope you will consider our Smart \$aver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

Grady Reid, Jr Product Manager Mercantile Self Direct Rebates

cc: Mike Heath, Duke Energy Rob Jung, WECC Lucas Dixon, PlugSmart

www.duke-energy.com

Please indicate your response to this rebate offer within 30 days of receipt.										
Rebate is accepted. Rebate is declined.										
By accepting this rebate, Cincinnati Public Schools affirms its intention to commit and energy efficiency projects listed on the following pages into Duke Energy's peak dem demand response and/or energy efficiency programs.										
Additionally, Cincinnati Public Schools also agrees to serve as joint applicant in any future filings necessary to secure approval of this arrangement as required by PUCO and to comply with any information and reporting requirements imposed by rule or as part of that approval.										
Finally, Cincinnati Public Schools affirms that all application information submitted to Duke Energy pursuant to this rebate offer is true and accurate. Information in question would include, but not be limited to, project scope, equipment specifications, equipment operational details, project costs, project completion dates, and the quantity of energy conservation measures installed.										
If rebate is accepted, will you use the monies to fund future energy efficiency and/or or reduction projects?	demand									
□ YES □ NO										
If rebate is declined, please indicate reason (optional):										
Don Elle Don Elbe 9-19-12										
Customer Signature Printed Name Date										

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	SCPA – Energy Recovery Ventilator ERU - 1	\$2000.00
ECM-2	SCPA – Energy Recovery Ventilator ERU - 2	\$2000.00
Total		\$4000.00

Ohio Public Utilities Commission

Application to Commit Energy Efficiency/Peak **Demand Reduction Programs** (Mercantile Customers Only)

Netwry Public, State of Onio My Commission Expires Sept. 11, 2913

Case No.:EL-EEC
State of Ohio:
Don Elbe, Affiant, being duly sworn according to law, deposes and says that:
1. I am the duly authorized representative of: Lincipal Public Schools [insert customer or EDU company name and any applicable name(s) doing business as]
I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.
3. I am aware of fines and penalties which may be imposed under Ohio Revised Code Sections 2921.11, 2921.31, 4903.02, 4903.03, and 4903.99 for submitting false information. Signature of Affiant & Title
Sworn and subscribed before me this 19th day of Scotember, 2012 Month/Year
Mark Jace Signature of official administering oath Angles F. Tolle, Notary Public Print Name and Title
My commission expires on Sept 11, 2013 ANGELA F. TOLLE Notary Public, State of Onio

20903690 01 SCPA		
108 CENTRAL PKY W		
CINCINNATI, OH 45202		
Date	Days	Actual KWH
7/23/2012	32	286,186
6/21/2012	30	257,698
5/22/2012	29	276,818
4/23/2012	32	257,333
3/22/2012	29	251,050
2/22/2012	29	216,125
1/24/2012	34	228,245
12/21/2011	30	232,810
11/21/2011	31	262,186
10/21/2011	29	259,385
9/22/2011	30	306,658
8/23/2011	29	279,360
Total		3,113,854

Appendix B - SCPA Energy Savings Achieved

	Baseline Used					Post Project Actual			Sa	vings	
				Annual	Summer		Annual	Summer		Annual	Summer
				kWh	Coincident		kWh	Coincident	Hours of	kWh	Coincident
ECM #	Facility	Description	Qty	(each)	kW (each)	Description	(each)	kW (each)	Operation ¹	(each)	kW (each)
1	SCPA	25,500 CFM (each) ERU-1 and ERU-2 before Heat recovery									
		wheels added	2	37,117	60	Heat recovery wheels added to ERU 1 and ERU 2	11,408	21	1,225	25,709	13.3
Totals				74,234	60		22,816	42		51,418	26.6

After consideration of line losses, total energy savings are 55,240 kWh and 28.6 summer coincident. These values may also reflect minor DSMore modeling software rounding error.

Notes:

- 1 Hours of operation do not apply simply to heat recovery unit measures. kWh and kW values presented are the results of bin analysis presented in the attached pages.
- 2 Building Code baseline heating allowances are detailed on the attached pages.

Annual energy (kWh) savings values validated in the applicant heating energy model were input into the DSMore analysis software and modeled against a representative customer load shape to determine the coincident peak demand (kW) savings for this application

DETAILED CALCULATIONS

HEAT RECOVERY WHEEL SAVINGS

IΔ				

Salesforce Oppo	rtunity Name	Cinti Public Schools - SCPA - HRW	Application #	12-493 MSD	Rev.	0	
Project Name	Cinti Public Schoo	ls - SCPA - HRW	<u>-</u>		State	ОН	Ī
ECM	1	Cinti Public Schools - SCPA - HRW - Heat Recovery Wheel	for ERU-1 and ERU-2		_		

Notes:

- 1. Although there are two heat recovery wheels proposed for this project, the calculations below are for ONE heat recovery wheel (the wheels are identical),
- & the quantity in cell C15 on the "Energy Savings" tab is two.

 2. all data from "SCPA ERU 1 and 2 Heat Wheel Submittal.pdf", except as otherwise noted

3. Calculation template is from App. 12-492 MSD - Cinti Public Schools - College Hill

USA_OH_Cincinnati.Muni.AP-Lunken.Field.724297_TMY3.bin Same for ERU-1 & ERU-2 - see Note 1

_	
Minimum Fraction Outdoor Air:	100%
Heat Recover Effectiveness:	71.8%
Set Point Temperature:	78 F
Set Point Enthalpy:	28.810 Btu/lba
Supply Air Temperature:	82.72 F
Supply Air Enthalpy:	30.760 Btu/lba
Supply Air Volume:	25,000 cfm
Supply Air Density:	0.075 lb/ft^3

StrTemp		Supply /	air Density:	0.075	ID/π/3						
(F) (F) (F) (Btu/lba) hrs foa (F) (Btu/lba) (mmBTU) (mmBTU) (mmBTU) 105 109 107.0 0 0 100% 107.0 0.00 0.00 0.00 100 10104 102.0 0 0 100% 102.0 0.00 0.00 0.00 95 99 96.1 42.6 12 100% 96.1 42.60 13.37 18.62 90 94 92.2 39.6 41 100% 92.2 39.60 35.73 49.77 1 85 88 98 87.6 37.7 142 100% 87.6 37.70 101.97 142.02 4 880 84 82.4 35.0 250 100% 82.4 35.00 125.00 174.09 4 75 79 77.2 33.4 287 100% 77.2 33.40 166.41 148.20 4 77 0 74 72.5 31.9 241 100% 68.0 29.10 5.90 60.15 83.78 2 665 69 68.0 29.1 252 100% 68.0 29.10 5.90 8.22 60 64 62.6 24.8 322 100% 62.6 24.80 0.00 0.00 0.00 55 5 55 99 57.1 21.9 222 100% 57.1 21.90 0.00 0.00 45 49 47.5 17.3 151 100% 47.5 17.30 0.00 0.00 440 444 43.1 15.2 211 100% 47.5 17.30 0.00 0.00 33 30 34 32.4 10.8 135 100% 37.6 12.9 0.00 0.00 25 29 27.7 9.0 99 100% 27.7 9.00 0.00 0.00 25 20 24 23.3 7.5 66 100% 32.4 10.80 0.00 0.00 10 14 12.5 4.1 16 100% 32.7 9.00 0.00 0.00 10 14 12.5 4.1 16 100% 37.5 2.70 0.00 0.00 10 14 12.5 4.1 16 100% 37.5 2.70 0.00 0.00 10 10 14 1									Savings	Baseline	Proposed
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80 84 82.4 35.0 250 100% 82.4 35.00 125.00 174.09 4 75 79 77.2 33.4 287 100% 77.2 33.40 106.41 148.20 4 70 74 72.5 31.9 241 100% 72.5 31.9 60.15 83.78 2 65 69 68.0 29.1 252 100% 68.0 29.10 5.90 8.22 60 64 62.6 24.8 322 100% 62.6 24.80 0.00 0.00 55 5 5 5 5 5 57.1 21.9 222 100% 57.1 21.90 0.00 0.00 50 54 52.0 19.2 226 100% 52.0 19.20 0.00 0.00 45 45 49 47.5 17.3 151 100% 47.5 17.30 0.00 0.00 40 44 43.1 15.2 211 100% 47.5 17.30 0.00 0.00 35 39 37.6 12.9 206 100% 37.6 12.90 0.00 0.00 25 5 29 27.7 9.0 99 100% 27.7 9.0 0.00 0.00 25 12 24 23.3 7.5 66 100% 32.4 10.80 0.00 0.00 25 19 18.3 5.9 36 100% 18.3 5.90 0.00 0.00 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 5 9 7.5 2.7 5 100% 3.0 140 0.00 0.00 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 10 14 3.0 1.4 10.8 135 100% 3.0 14.0 0.00 0.00 10 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 10 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 10 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 10 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 10 10 14 12.5 4.1 16 100% 13.0 1.40 0.00 0.00 10 10 14 12.5 4.1 16 100% 13.0 1.40 0.00 0.00 10 10 14 12.5 4.1 16 100% 13.0 1.40 0.00 0.00 10 10 14 12.5 4.1 16 100% 13.0 140 48.53 624.70 17 Energy recovery wheel motor Motor Size hp: 1.0 Chiller kW/Ton: 0.713 0.	90	94	92.2	39.6	41	100%	92.2	39.60	35.73	49.77	14.03
75	85	89	87.6	37.7	142	100%	87.6	37.70	101.97	142.02	40.05
To To To To To To To To	80	84	82.4	35.0	250	100%	82.4	35.00	125.00	174.09	49.09
65	75	79	77.2	33.4	287	100%	77.2	33.40	106.41	148.20	41.79
60 64 62.6 24.8 322 100% 62.6 24.80 0.00 0.00 55 59 57.1 21.9 222 100% 57.1 21.90 0.00 0.00 55 59 57.1 21.9 222 100% 57.1 21.90 0.00 0.00 45 45 49 47.5 17.3 151 100% 47.5 17.30 0.00 0.00 40 44 43.1 15.2 211 100% 43.1 15.20 0.00 0.00 33 30 34 32.4 10.8 135 100% 37.6 12.90 0.00 0.00 25 29 27.7 9.0 99 100% 27.7 9.00 0.00 20 24 23.3 7.5 66 100% 23.3 7.50 0.00 0.00 15 19 18.3 5.9 36 100% 18.3 5.90 0.00 0.00 10 14 12.5 4.1 16 100% 18.3 5.90 0.00 0.00 5 9 7.5 2.7 5 100% 7.5 2.70 0.00 0.00 0 4 3.0 1.4 0 100% 3.0 1.40 0.00 0.00 Energy recovery wheel motor Motor Size hp: 1.0 Load Factor: 0.85 Motor Efficiency: 82.5% Heat Recovery Hours of Operation: 1,225 1,225 1	70	74	72.5	31.9	241	100%	72.5	31.90	60.15	83.78	23.63
S5 S9 S7.1 21.9 222 100% S7.1 21.90 0.00 0.00	65	69	68.0	29.1	252	100%	68.0	29.10	5.90	8.22	2.32
So	60	64	62.6	24.8	322	100%	62.6	24.80	0.00	0.00	0.00
45	55	59	57.1	21.9	222	100%	57.1	21.90	0.00	0.00	0.00
40	50	54	52.0	19.2	226	100%	52.0	19.20	0.00	0.00	0.00
35 39 37.6 12.9 206 100% 37.6 12.90 0.00 0.00	45	49	47.5	17.3	151	100%	47.5	17.30	0.00	0.00	0.00
30 34 32.4 10.8 135 100% 32.4 10.80 0.00 0.00 25 29 27.7 9.0 99 100% 27.7 9.00 0.00 0.00 20 24 23.3 7.5 66 100% 23.3 7.50 0.00 0.00 15 19 18.3 5.9 36 100% 18.3 5.9 0.00 0.00 10 14 12.5 4.1 16 100% 12.5 4.10 0.00 0.00 5 9 7.5 2.7 5 100% 7.5 2.70 0.00 0.00 0 4 3.0 1.4 0 100% 3.0 1.40 0.00 0.00	40	44	43.1	15.2	211	100%	43.1	15.20	0.00	0.00	0.00
25 29 27.7 9.0 99 100% 27.7 9.00 0.00 0.00	35	39	37.6	12.9	206	100%	37.6	12.90	0.00	0.00	0.00
20	30	34	32.4	10.8	135	100%	32.4	10.80	0.00	0.00	0.00
15	25	29	27.7			100%	27.7	9.00	0.00	0.00	0.00
10											0.00
S 9 7.5 2.7 5 100% 7.5 2.70 0.00	15	19	18.3	5.9	36	100%	18.3	5.90	0.00	0.00	0.00
0 4 3.0 1.4 0 100% 3.0 1.40 0.00 0.00											0.00
Annual Total mmBTU: 448.53 624.70 17 Energy recovery wheel motor											0.00
Energy recovery wheel motor Annual Ton-hours: 37,378 52,058 14 Motor Size hp: 1.0 Chiller kW/Ton: 0.713 <td< th=""><td>0</td><td>4</td><td>3.0</td><td>1.4</td><td>0</td><td>100%</td><td>3.0</td><td>1.40</td><td>0.00</td><td>0.00</td><td>0.00</td></td<>	0	4	3.0	1.4	0	100%	3.0	1.40	0.00	0.00	0.00
Motor Size hp: 1.0 Chiller kW/Ton: 0.713 0.713 0 Load Factor: 0.85 Cooling kWh: 26,650 37,117 10 Motor Efficiency: 82.5% Heat Recovery Hours of Operation: 1,225 1,225 1							Annual Tot	al mmBTU:	448.53	624.70	176.16
Load Factor: 0.85 Cooling kWh: 26,650 37,117 10 Motor Efficiency: 82.5% Heat Recovery Hours of Operation: 1,225 1,225 1	Energy i	recovery wheel mo	tor		Annual Ton-hours:			37,378	52,058	14,680	
Motor Efficiency: 82.5% Heat Recovery Hours of Operation: 1,225 1,225 1				1							
			0.85						26,650	37,117	10,467
hp to kW conversion: 0.7456 Cooling kW: 21.76 30.30					H	Heat Recove	ry Hours of	Operation:			1,225
	hp	to kW conversion:	0.7456	1			C	21.76	30.30	8.54	

Allocation of annual savings by month (calculations by WECC)

Motor kW:

Motor kWh:

0.768

941

Trade ally only provided annual savings numbers. Combine HRW savings and motor use, then use % of cooling degree days by month to distribute annual savings appropriately.

Cooling Degree Day Source:		nttp://www	v.climate-zc	ne.com/ciii	nate/united	i-states/oni	o/greater-ci	ncinnati-air	port/				
	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual
CDD by Month	0	0	0	0	86	191	313	266	120	20	0	0	996
Degree Days % of Annual	0.0%	0.0%	0.0%	0.0%	8.6%	19.2%	31.4%	26.7%	12.0%	2.0%	0.0%	0.0%	100%
Degree Days % of Maximum	0.0%	0.0%	0.0%	0.0%	27.5%	61.0%	100.0%	85.0%	38.3%	6.4%	0.0%	0.0%	
Baseline kWh	0	0	0	0	3,205	7,118	11,664	9,913	4,472	745	0	0	37,117
Proposed kWh	0	0	0	0	985	2,188	3,585	3,047	1,374	229	0	0	11,408
kWh Savings	0	0	0	0	2,220	4,930	8,079	6,866	3,097	516	0	0	25,709
Baseline kW	0.00	0.00	0.00	0.00	8.33	18.49	30.30	25.75	11.62	1.94	0.00	0.00	30.30
Proposed kW	0.00	0.00	0.00	0.00	2.56	5.68	9.31	7.91	3.57	0.60	0.00	0.00	9.31
kW Savings	0.00	0.00	0.00	0.00	5.77	12.81	20.99	17.84	8.05	1.34	0.00	0.00	20.99

Calculations - ECM-1

1 of 3

Appendix C -SCPA - Cash Rebate Calculation

HVAC

Measure	Quantity	Cash Rebate Rate	Amount (each)	Cash Rebate
		50% of incentive that would be offered by	/ Incume (cacil)	Guon Newate
Heat Recovery Units Added - ERU 1 and ERU- 2	2	the Smart \$aver Custom program	\$2,000.00	\$4,000.00
Totals	2			\$4,000.00

Appendix D -SCPA - UCT Value

HVAC

Measure	Total Avoided Cost (each)	Program Cost (each)	Incentive (each)	Quantity	Measure UCT
Heat recovery wheels added to ERU 1 and ERU 2	\$31,050	\$1,048	\$2,000	2	10.19
Totals	\$62,100	\$2,096	\$4,000	2	

Total Avoided Supply Costs \$62,100 Aggregate Application UCT 10.19
Total Program Costs \$2,096
Total Incentive \$4,000

Ohio Mercantile Self Direct Program

Application Guide & Cover Sheet

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email this form along with <u>completed Mercantile Self Direct Prescriptive or Custom applications</u>, proof of payment, energy savings calculations and spec sheets to <u>SelfDirect@Duke-Energy.com</u>. You may also fax to 1-513-419-5572.

indicate mercantile qualification: a single Duke Energy (ally are eligible for the Mercantile S may be counted toward the total)	self Direct program. Please
Please list Duke Energy account	numbers below (attach listing of m	nultiple accounts an/or billing histor	y for other utilities as required):
Account Number	Annual Usage	Account Number	Annual Usage

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart \$aver® Custom Incentive. Self Direct incentives are applicable to Prescriptive measures that were installed more than 90 days prior to submission to Duke Energy and have not previously received a Duke Energy Prescriptive rebate.

Self Direct Program requirements dictate that certain projects that may be Prescriptive in nature under the Smart \$aver program must be evaluated using the Custom process. Use the table on page two as a guide to determine which Self Direct program fits your project(s). Apply for Self Direct projects using the appropriate application forms in conjunction with this cover sheet. Where Mercantile Self Direct Prescriptive applications are listed, please refer to the measure list on that application. If your measure is not listed, you may be eligible for a Self Direct Custom rebate. Self Direct Custom applications, like Smart \$aver Custom applications, should include detailed analysis of pre-project and post-project energy usage and project costs. Please indicate which type of rebate applications are included in the table provided on page two.

Please check each box to indicate completion of the following program requirements:

Trease entern each con to marcute to	impretion of the foliowing program:	equirements.	
	□ Proof of payment.*	Manufacturer's Spec sheets	Energy model/calculations and
application(s) are completed			detailed inputs for Custom
			applications

^{*} If a single payment record is intended to demonstrate the costs of both Prescriptive & Custom projects, please include an additional document with an estimated breakout of costs for each Prescriptive and Custom energy conservation measure.

Application Type	Replaced equipment at end of lifetime or because equipment failed**	Replaced fully operational equipment to improve efficiency***	New Construction
	MSD Custom Part 1	MSD Prescriptive Lighting	MSD Prescriptive Lighting ⊠
Lighting	Custom Lighting Worksheet	MSD Custom Part 1 Custom Lighting Worksheet	MSD Custom Part 1 ☐ Custom Lighting Worksheet ⊠
Heating & Cooling	MSD Custom Part 1	MSD Custom Part 1	MSD Prescriptive Heating & Cooling
Treating & Cooning	MSD Custom General Worksheet	MSD Custom General Worksheet	MSD Custom Part 1 ⊠ MSD Custom General Worksheet ⊠
Window Films, Programmable Thermostats, & Guest Room Energy Management Systems	MSD Custom Part 1 ☐ MSD Custom General and/or EMS Worksheet(s) ☐	MSD Prescriptive Heating & Cooling	MSD Custom Part 1 ☐ MSD Custom General and/or EMS Worksheet(s) ☐
Chillers & Thermal	s & Thermal MSD Custom Part 1 M	MSD Custom Part 1	MSD Prescriptive Chillers & Thermal Storage
Storage	MSD Custom General Worksheet	MSD Custom General Worksheet	MSD Custom Part 1 MSD Custom General Worksheet
Motors & Dumns	MSD Custom Part 1	MSD Custom Part 1	MSD Prescriptive Motors, Pumps & Drives
Motors & Pumps	MSD Custom General Worksheet	MSD Custom General Worksheet	MSD Custom Part 1 MSD Custom General Worksheet
LED	N (A - 1' - 1 1	MSD Prescriptive Motors, Pumps & Drives □	MSD Custom Part 1
VFDs	Not Applicable	MSD Custom Part 1 ☐ MSD Custom VFD Worksheet ☐	MSD Custom VFD Worksheet
	MSD Custom Part 1	MSD Custom Part 1	MSD Prescriptive Food Service
Food Service	MSD Custom General Worksheet	MSD Custom General Worksheet	MSD Custom Part 1 MSD Custom General Worksheet
	MSD Custom Part 1	MSD Prescriptive Process	MSD Custom Part 1
Process	MSD Custom General Worksheet	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Custom General Worksheet
Energy Management Systems	MSD Custom Part 1 MSD Custom EMS Worksheet	MSD Custom Part 1 MSD Custom EMS Worksheet	MSD Custom Part 1 MSD Custom EMS Worksheet
Behavioral*** & No/Low Cost		MSD Custom Part 1	

^{**} Under the Self Direct program, failed equipment and equipment at the end of its useful life are evaluated differently than early replacement of fully functioning equipment. **All equipment replacements due to failure or old age will be evaluated via the Custom program.**

^{***} Please ensure that you include the age of the replaced equipment for measures classified as "Early Replacement" in your application as well as the estimated date that you would have otherwise replaced the existing equipment if you had not chosen a more energy efficient option.

^{****} Behavioral energy efficiency and demand reduction projects must be both measurable and verifiable. Provide justification with your application.



Proposed energy efficiency measures may be eligible for Self-Direct Custom rebates if they clearly reduce electrical consumption and/or demand as compared to the appropriate baseline.

Before you complete this application, please note the following important criteria:

- Submitting this application does not guarantee a rebate will be approved.
- Rebates are based on electricity conservation only.
- Electric demand and/or energy reductions must be well documented with auditable calculations.
- Incomplete applications cannot be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, beginning on page 6.

Notes on the Application Process

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact your Duke Energy Ohio, Inc account manager or the Duke Energy Smart \$aver® team at 1-866-380-9580.

Every application must include calculations of the baseline electrical usage and the electrical usage of the proposed high-efficiency equipment/system. Monthly calculations are best. You, the Duke Energy Ohio customer, or your equipment vendor / engineer should perform these calculations and submit them to Duke Energy for review. We strongly encourage the use of modeling software (such as eQuest or comparable) for complex projects.

Upon receipt of your application, an acknowledgement email will be sent to you with an estimated response time based on an initial assessment of your application. The application review may include some communication to resolve any questions about the project or to request additional information. Applications that are received complete without missing information have a faster review time.

There are two ways to submit your completed application.

Email your scanned form to: <u>SelfDirect@duke-energy.com</u>

Or, fax your form to 513-419-5572

Page 1 Rev 7/11



1. Contact Information (Required)

Duke Energy Cus	stomer Contact In	formation					
Company Name	Cincinnati Public S	Schools					
Address	2651 Burnett Ave						
Project Contact	Don Elbe						
City	Cincinnati		State	ОН		Zip Code	45219
Title							
Office Phone		Mobile Phone			Fax	(
E-mail Address							
Equipment Vendo	or / Contractor / A	rchitect / Engi	neer Con	tact Infor	mat	ion	

Equipment Vendor / Contractor / Architect / Engineer Contact Information							
Company Name	Plug Smart						
Address	1275 Kinnear Roa	275 Kinnear Road Suite 229					
City	Columbus	Columbus State OH Zip Code				43212	
Project Contact	Lucas Dixon						
Title	Operations Mana	iger					
Office Phone	614-580-3352	Mobile Phone			Fax	1-8	00-518-5576
E-mail Address	lucas.dixon@plug	smart.com					
Describe Role							

Payment Information						
Payee Legal Company						
Name (as shown on	Cincinna	ati Public Schoo	ols			
Federal income tax return):						
Mailing Address	2651 Bu	rnett Ave				
City	Cincinna	ati	State	ОН	Zip Code	42519
Type of organization (check				Co	rporation	Partnership
Payee Federal Tax ID # of Lompany Name Above:	egal	31-6000758				
Who should receive incentive	e paymer	it? (select one)) ⊠ Custo	mer	☐ Vendor (C must sign I	
If the vendor is to receive pa I hereby authorize payment of						
Customer Signature			Date	/	_/ (mr	m/dd/yyyy)

Page 2 Rev 7/11



2. Project Information (Required)

cannot be included in the Implementation Cost)

A.	Please indicate project type: ☐ New Construction ☐ Expansion at an existing facility ☐ Replacing equipment due to equipment failure ☐ Replacing equipment that is estimated to have remaining useful life of 2 years or less ☐ Replacing equipment that is estimated to have remaining useful life of more than 2 years ☐ Behavioral, operational and/or procedural programs/projects
B.	Please describe your project, or attach a detailed project description that describes the project. Heat wheels on new air handlers and lighting compliance check
C.	When did you start and complete implementation? Start date / (mm/yyyy) End date 07 / 2009 (mm/yyyy)
D.	Are you also applying for Self-Direct Prescriptive incentives and, if so, which one(s) ¹ ? Lighting sensors, premium efficient motors.
E.	Please indicate which worksheet(s) you are submitting for this application (check all that apply): Lighting Variable Frequency Drive (VFD) Compressed Air Energy Management System (EMS) General (for projects not easily submitted using one of the above worksheets)
F.	Please tell us if there is anything about your electrical energy projections (either for the baseline or the proposed project) that you are either unsure about or for which you have made significant assumptions. Attach additional sheets as needed.
	quired: Attach a supplier or contractor invoice or other equivalent information documenting Implementation Cost for each project listed in your application. (Note: self-install costs

Page 3 Rev 7/11

¹ If your project involves some equipment that is eligible for prescriptive incentives and some equipment that is likely eligible for custom incentives, and if it is feasible to separate the equipment for the energy analysis, then the equipment will be evaluated separately. If it is not feasible to separate the equipment for analysis, then the equipment will be evaluated together in the custom application.



3. Signature (Required - must be signed by Duke Energy customer)

Customer Consent to Release of Personal Information

I, (insert name) <u>Lon Elbe</u>, do hereby consent to Duke Energy disclosing my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number to its subcontractors solely for the purpose of administering Duke Energy Ohio's Mercantile Self-Direct Program. I understand that such subcontractors are contractually bound to otherwise maintain my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number In the strictest of confidence.

Trealize that under the rules and regulations of the public utilities commission, I may refuse to allow Duko Energy Ohio, Inc to release the information set forth above. By my signature, I freely give Duke Energy Ohio, Inc permission to release the information designated above.

Application Signature

Loertify that I meet the eligibility requirements of the Duke Energy Ohio, Inc Mercantile Self Direct Custom Incentives Program and that all information provided within this application is correct to the best of my knowledge. I agree to the terms and concitions set forth for this program. I certify that the numbers, energy savings, and responses shown on this form are correct. Further, I certify that the taxpayer identification number is current and correct. I am not subject to backup withholding because: (a) I am exempt from backup withholding; or (b) I have not peer notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest or dividends; or (c) the IRS has notified me that I am no longer subject to backup withholding. I am a U.S. citizen (includes a U.S. resident alien).

Don !	Elle
Duke Energy Ohio,	inc Customer Signature

Print Name Don Flbe

Date 6-6-12



Checklist for completing the Application

INCOMPLETE APPLICATIONS WILL RESULT IN DELAYS IN DUKE ENERGY PROCESSING YOUR APPLICATION AND NOTIFYING YOU CONCERNING AY REBATES. Before submitting the application and the required supplementary information, use the following checklist to ensure that your application is complete and the information in the application is accurate. (Note: this checklist is <u>for your use only</u> – do not submit this checklist with your application)

Section No.	
& Title	Have You:
1. Contact	□ Completed the contact information for the Duke Energy customer?
Information	☐ Completed the contact information for the equipment vendor / project
	engineer that can answer questions about the technical aspects of the
	project, if that is a different person than above?
2. Project	Answered the questions A-E, including providing a description of your
Information	project.
	☐ Completed and attached the lighting, compressed air, VFD, EMS
	and/or General worksheet(s)?
3. Signature	Signed your name?
Supplementary	Attached a supplier or contractor's invoice or other equivalent
information	information documenting the Implementation Cost for projects listed in
(Required)	your application? (Note: self-install costs cannot be included in the
	Implementation Cost)
	(If submitting the General Worksheet) attached calculations
	documenting the energy usage and energy savings for each project listed
	in your application?

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact:

- your Duke Energy account manager or
- the Duke Energy Smart \$aver® team at 1-866-380-9580.

Page 5 Rev 7/11



Instructions/Terms/Conditions

Note: Please keep for your records- do not submit with the application

- Energy service companies or contractors may assist in preparing the application, but an authorized representative of the customer must sign this application to be eligible to participate in the Mercantile Self Direct Program. Completion of this application does not guarantee the approval of a Self Direct Custom Rebate.
- 2. Once all documentation requested in this application is received by *Duke Energy Ohio, Inc,* and any follow-up information requested by *Duke Energy* is received, the rebate amount for each Energy Conservation Measure (ECM) will be communicated to the customer. The rebate amount will be based on ECM energy savings and ECM incremental installation cost.
- 3. All rebates require approval by the Public Utilities Commission of Ohio. *Duke Energy Ohio, Inc* will submit an application for rebate on the customer's behalf upon customer attestation to program terms, conditions and requirements as outlined in the rebate offer letter and upon customer completion of attestation documents required by the Public Utilities Commission of Ohio.
- 4. Duke Energy Ohio, Inc will issue a Self Direct Custom Rebate check, based on the approved rebate amount for each ECM, upon receiving approval from the Public Utilities Commission of Ohio. Duke Energy Ohio, Inc does not guarantee PUCO approval.
- 5. With the application, the customer must provide a list of all sites where the ECMs were installed. Duke Energy Ohio, Inc requests that sites of similar size, hours of operation and energy consuming characteristics be grouped together in one application for the determination of the rebate amount. The application should identify the site where each unique ECM was installed.
- 6. Based on the information submitted with the application and the information gathered both before and after the initial installation of the ECM, *Duke Energy Ohio, Inc* will calculate the rebate amount for each ECM.
- 7. Duke Energy Ohio, Inc may conduct random site inspections of a sample of the locations where the ECMs are installed to verify installation and operability of the ECMs and to obtain information needed to calculate the Approved Incentive Amount.
- 8. Customers are encouraged to retain copies of all forms, invoices and supporting documentation for their records.
- 9. Approved rebates are valid for 6 months from the date communicated to the customer by *Duke Energy Ohio, Inc,* subject to the expiration of measure eligibility based on project completion dates and application submission deadlines as defined by PUCO. Customers are encouraged to execute their rebate offer contracts and PUCO-required affidavits promptly to ensure eligibility is not forfeited.
- 10. *Duke Energy Ohio, Inc* reserves the right to recover all unrecoverable costs associated with the project approval if the customer decides not to execute the rebate contract, after the project is approved by *Duke Energy Ohio, Inc.*
- 11. Projects financially supported by other funding sources will be evaluated on a case-by-case basis for potential partial funding from *Duke Energy Ohio*, *Inc*.
- 12. Participants must be *Duke Energy Ohio, Inc* nonresidential, mercantile customers with the project sites in the *Duke Energy Ohio, Inc* service territory.

Page 6 Rev 7/11



- 13. Customers or trade allies may not use any Duke Energy logo without prior written permission.
- 14. Only trade allies registered with *Duke Energy* are eligible to participate.
- 15. All equipment must be new. Used or rebuilt equipment is not eligible for incentives. All old existing equipment must be removed on retrofit projects.
- 16. Disclaimers: Duke Energy Ohio, Inc.
 - a. does not endorse any particular manufacturer, product or system design within the program;
 - b. will not be responsible for any tax liability imposed on the customer as a result of the payment of incentives:
 - c. does not expressly or implicitly warrant the performance of installed equipment. (Contact your contractor for details regarding equipment warranties.);
 - d. is not responsible for the proper disposal/recycling of any waste generated or obsolete or old equipment as a result of this project;
 - e. is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment; and
 - f. reserves the right to change or discontinue this program at any time. The acceptance of program applications is determined solely by *Duke Energy Ohio, Inc.*

Page 7 Rev 7/11

Mercantile Self Direct

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Nonresidential Custom Incentive Application
GENERAL CUSTOM APPLICATIONS WORKSHEET - CUSTOM GENERAL APPLICATION PART 2

Rev 7/11

Page 1 of 3



The General Worksheet is part 2 of the application. Do not submit this file without submitting a completed Part1 Custom Application document file, which can be found at www.duke-energy.com. This worksheet is for all projects that are not easily submitted through one of the other worksheets

Before you complete this application, please note the following important criteria:

- · Submitting this application does not guarantee an incentive will be approved.
- · Incentive already decided to proceed.
- · Electric demand and/or energy reductions must be well documented with auditable calculations.
- · Incomplete applications will not be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, found in the Mercantile Self Direct Custom Application Part 1 document.

Please enter your information and data into the cells that are shaded.
Cells in white are locked and cannot be written over.

Duke Energy Customer Contact Information (Match the information in Application Part 1):

Name Don Elbe

Company Cincinnati Public Schools

Equipment Vendor / Project Engineer Contact Information

Name

Lucas Dixon

Company

Plug Smart

Before proceeding with the custom application, please verify that your project is not on the Self-Direct Prescriptive application.

The prescriptive incentive applications can be found at:

http://www.duke-energy.com/ohio-large-business/smart-saver/mercantile-self-direct.asp

Prescriptive rebate amounts are pre-approved.

SCPA.Custom.Gen.xls Input Data 1 of 3

Page 2 of 3 Rev 7/11



List of Sites (Required) App No.

					Rev.]
Site ID	list of sites addressed by this cust Duke Energy Electric Account Number(s) (see note 2)	Facility Address	List of Proposed Projects at each site	Annual Hours of Operation	Gross Square Footage	Conditioned Square Footage	Facility Age (years)
225	12345678 01	Example: 123 Main Street, Anywhere USA 12345	Project Name(s)	5,840	42,000	38,000	12
	2090-3690-01	108 W. Central Parkway Cincinnati OH 45202	Heat Recovery Wheels	1,225	191,568	191,568	3
	2030 3030 01	100 TH CONTRACT CHANGE CHI 15202	Treat recovery vineers	1,223	131,300	131,300	
							-

1 Site ID

Can be a store number, building name or other way to identify the location. If there is only one site involved in this application, then a Site ID is not necessary.

2 Account Numbers

Must match the facility of the proposed project(s). If there are multiple meters at a site, only include the meters that pertain to the project(s).

SCPA.Custom.Gen.xls Input Data 2 of 3 Mercantile Self Direct

Self Direct Page 3 of 3

Yes

Nonresidential Custom Incentive Application
GENERAL CUSTOM APPLICATIONS WORKSHEET - CUSTOM GENERAL APPLICATION PART 2

Rev 7/11



For each project, answer the following questions (use one worksheet per project)

Project Name: Heat Recovery Units

 App No.
 0

 Rev.
 0

How would you classify this project? (Place an x in all boxes that apply.)							
Lighting		Heating/Cooling	X	Air Compressor		Energy Management System	
VFD		Motors/Pumps		Process Equipment		Other, describe below:	

Brief Project Description

Describe the Baseline (see note 3) Equipment/System	Describe the Proposed High Efficiency Project			
No heat recovery units installed on air handlers	Heat recovery units installed on air handlers.			
If Existing Equipment is the Baseline, how many years of useful life remain or how many years until scheduled replacement?				

Operating Hours (see note 4)

Detailed Project Description Attached?

	>	/eekday	s	aturday	Sunday		Weeks of Use in Year	Total Annual
24 x 7	Start Hour	End Hour	Start Hour	End Hour	Start Hour	End Hour	(see note 5)	Hours of Use
	7:00 AM	3:00 PM					29	1,225

(Required)

Energy Savings

Liter by Savings				
	Baseline (see Note 3)	Proposed	Savings	
		-		Describe how energy numbers were calculated
Annual Electric Energy	34,853 kWh	0 kWh	34,853 kWh	
Electric Demand	0 kW	0 kW	0 kW	
Calculations attached	Yes	Yes	(Required)	fore, baseline is listed as the savings with proposed at 0 kWh. See attached Covedale.H

Simple Payback

Simple Layback					_
Average electric rate (\$/kWh) on the applicable accounts (see note 6)				\$0.10	
Estimated annual electric savings				\$3,485	
Other annual savings in addition to electric savings, such as operations, maintenance, other fuels					
Incremental cost to implement the project (equipment & installation) (see note 7)				\$16,000.00	
Copy of vendor proposal is attached (see note 8)					
Simple Electric Payback in years (see note 9) 4.590749067 Total Payback in years					4.590749067

з Baseline

Retrofit projects: the existing equipment is the baseline.

New construction projects: the baseline is the standard option in today's market, taking into account any applicable organizational, local, state or federal codes or standards currently in effect.

4 Operating Hours

Describe when the equipment is typically used. If the project is proposed for more than one site, provide any variations in operating hours between the sites on a separate sheet.

5 Weeks of Use in Year

If the equipment is not in use 52 weeks during the year (for example, during holiday or summer break), provide an explanation of when usage is not expected and why:

Savings only calculated for summer hours, gas heating systems are used during the winter.

6 Average electric rate (\$/kWh)

If you do not know your average electric rate, use \$0.10/kWh.

7 Incremental cost to implement the project

Costs exclude self installation costs. Retrofit projects, incremental cost is the total cost of the proposed project. New construction or where the existing equipment must be replaced anyway, then incremental cost is the premium of the proposed high efficiency project over baseline.

8 Copy of vendor invoice is attached

Vendor invoices detailing costs of the project are always required.

New construction projects or where the existing equipment must be replaced anyway, vendor proposal of baseline must also be attached.

9 Simple Electric Payback

If the simple electric payback is less than 1 year, the rebate structure is affected. Double check average electric rate for correct payback.

SCPA.Custom.Gen.xls Input Data 3 of 3



To whom it may concern:

This letter is to confirm that for the new construction of Cincinnati Public school SCPA (School for Creative and Performing Arts) (108 W Central Pkwy Cincinnati, OH 45202), for the custom rebate application, the heat recovery wheels were installed with a minimum unit cost listed below.

DESCRIPTION	QUANTITY	PRICE/FIXTURE	AMOUNT
Airxchange ATRX ERC-110220c heat wheel	2	\$8,000	\$16000

TOTAL \$16,0	100
----------------	-----

This is also to confirm that for the new construction of SCPA (School for Creative and Performing Arts) (108 W Central Pkwy Cincinnati, OH 45202), for the prescriptive rebate application, occupancy sensors and premium efficiency motors were installed with a minimum unit cost listed below.

DESCRIPTION	Model Number	QUANTITY	Nominal Size (Tons)	PRICE/FIXTURE	AMOUNT
Ceiling Mounted Occupancy Sensors	WattStopper DT-300	262	-	\$113.19	\$29655.75
Wall Mounted Occupancy Sensors	WattStopper D⊤-200, DW-100	218	-	\$75.33	\$16421.94
Premium Efficiency Motor	Baldor EM2539T- 40hp	6	-	\$2588.30	\$15529.80
Premium Efficiency Motor	Baldor EM2515T- 20hp	2	-	\$1512.50	\$3025.00
Premium Efficiency Motor	Baldor EM3218T- 5hp	3	-	\$471.86	\$1415.58
Premium Efficiency Motor	Baldor EM3311T- 7.5hp	2	-	\$573.53	\$1147.06
Premium Efficiency Motor	Baldor EM3211T- 3hp	3	-	\$368.95	\$1106.85

TOTAL	\$68,301.98
<u> </u>	

Thank you for your attention to this matter,

Don Elle 7-3-12

Don Elbe

Utility Management Coordinator

APPLICATION AND CERTIFICATE FOR PAYMENT

TO OWNER: PROJECT: APPLICATION No: 21 CINCINNATI PUBLIC SCHOOLS SCHOOL FOR CREATIVE & PERFORMING ARTS APPLICATION DATE: 6/22/09 2315 IOWA AVENUE 108 W. CENTRAL PKWY PERIOD TO: 6/30/09 CINCINNATI, OHIO 45206 CINCINNATI, OHIO 45202 **PROJECT NO:** FROM CONTRACTOR: VIA ARCHITECT: CONTRACT DATE: 8/14/07 BEACON ELECTRIC COMPANY **COLE & RUSSELL ARCHITECTS** CPS PO NUMBER: 526676 7815 REDSKY DRIVE 537 E. PETE ROSE WAY CUSTOMER ACCT NO: 30620 CINCINNATI, OHIO 45249 CINCINNATI. OHIO 45202 **CONTRACT NO: 10960PO CONTRACT FOR: School for Creative & Performing Arts** CONTRACTOR'S APPLICATION FOR PAYMENT The Contractor certified that the work covered by this pay request has been completed in accordance with the Contract Documents and that all progress payments previously paid by the State have been applied by the Contractor to discharge in full all of Contractor's obligations incurred in connection with the Application is made for payment as shown below, in connection with the Contract work covered by all prior pay requests. Continuation sheet is attached. 1. ORIGINAL CONTRACT SUM.....\$ 7.552.500.00 2. Net Change by Change Orders.....\$ 373,684.00 3. CONTRACT SUM TO DATE.....\$ 7,926,184.00 4. TOTAL COMPLETED & STORED TO DATE.....\$ 5,856,788.25 Based upon on-site observations, the firm affirms that the work has progressed to the 5. RETAINAGE percentage of completeness indicated on the pay request. a. 8-50% of Completed Labor.....\$ 83,424.16 b. 8% of Stored Material.....\$ 25.834.32 Total Retainage..... 109.258.48 6. TOTAL EARNED LESS RETAINAGE.....\$ 5.747.529.77 7. LESS PREVIOUS CERTIFICATES FOR PAYMENT.....\$ 5,011,576.58 8. CURRENT PAYMENT DUE......\$ 735,953.19 9. BALANCE TO FINISH, INCLUDING RETAINAGE.......\$ 2.178.654.23 **ADDITIONS** DEDUCTIONS Change Order/Contract Approved: \$263,399.00 \$1,836.00 Total Changes approved in Previous months by Owner \$112,121.00 \$0.00 Total approved this month Date School District Treasurer MAUREEN L. MERKE **TOTALS** \$375,520.00 \$1,836.00

Notary Public, State of Ohi My Commission Expires 1 OF 8, 2013

\$373,684.00

NET CHANGES by Change Order

CONTINUATION SHEET

APPLICATION NUMBER: 21 PERIOD TO: 6/30/09

Α	В		С	D	E	F	G		Н	ı
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
1				APPS.	PERIOD	STORED	TO DATE	i		labor up to 50%
				(D + E)	((C x %) - D - F))	(NOT in D or E)	(D + E + F)	(G÷C)	(C-G)	stored material only
				····	\	. (1 3		- C.C. Cu material City
	GENERAL CONDITIONS		1					l		İ
1 1	Bond / Insurance	Material	75,000,00	75,000.00	0.00	0.00	75,000,00	100.00%	0.00	
2	Permits & Fees	Material	35,000.00	29,750,00	350.00	0.00	30,100.00	86.00%	4,900,00	
3	GC Submittals	Labor	10,000.00	10,000.00	0.00	0.00	10,000,00	100.00%	0.00	
4	er .	Material	5,000,00	5,000,00	0.00	0.00	5,000,00	100.00%	0.00	
5	Clean Up	Labor	36,500,00	25,550.00	1,204.50	0.00	26,754.50	73,30%	9,745.50	
6		Material	3,500,00	2,450,00	115.50	0.00	2,565.50	73,30%		
7	Punchlist	Labor	5,000.00	0.00	0.00	0.00	0.00	0,00%		
8 1	ti .	Material	2,500,00	0,00	0,00	0.00	0.00	0.00%		
9 1	Temporary Electric	Labor	54,000,00	52,920,00	0.00	0.00	52,920,00	98.00%	1,080,00	
10	u u	Material	50,000.00	50,000.00	0.00	0.00	50,000,00	100.00%	0.00	
	Allowances General #00300	Labor		0.00	0.00	0.00	0.00	0.00%	0.00	
12	1	Material	100,000,00	87,833.00	1,806.00	0.00	89,639.00	89.64%		
	Allowances DSL / TELE #00300	Labor	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.00	0.00	0.00	0.00	0.00%	0.00	
14	#	Material	20,000,00	15,146.00	2,564.00	0.00	17,710.00	88.55%		
	Close Out	Labor	10,000,00	0.00	0.00	0.00	0.00	0.00%		
16	11	Material	10,000,00	0.00	0.00	0.00	0.00	0.00%		
	Attic Stock to owner	Material	5,000,00	0.00	0.00	0.00	0.00	0.00%	5.000.00	
	Training	Labor	2,400,00	0.00	0.00	0.00	0.00	0.00%	2,400.00	
	Project Manager	Labor	65,000.00	45,500.00	2,145.00	0.00	47,645.00	73.30%	17,355,00	
	Project Manager Project Superintendant	Labor	50,000.00	35,000.00	1,650.00	0.00	36,650,00	73.30%	13,350.00	
	Safety	Labor	12,000,00	8,400.00	396.00	0.00	8,796.00	73.30%		
22	Calety	Laboi	12,000.00	0.00	0.00	0.00	0.00	0.00%		
	ALTERNATE #E2 - Winch Electric	Labor	4,500,00	3,375,00	225.00	0.00	3,600.00	80.00%		
24	" TENINATE WEZ - VVIIION ENGUNC	Material	5,000,00	3,750,00	250.00	0.00	4.000.00	80.00%		
25		Waterial	0,000,00	0.00	0.00	0.00	0.00	0.00%) T
26				0.00	0.00	0.00	0.00	0.00%		
27				0.00	0.00	0.00	0.00	0.00%	0.00	
	SITE WORK			0.00	0.00	0.00	0.00	0.00%		
	Conduit - Brch & Fdr	Labor	55,000,00	46,750.00	0.00	0.00	46,750,00	85.00%		
30	# DIGITAL FUI	Material	40,000,00	34,000.00	0.00	0.00	34.000.00	85.00%		
	Wire - Brch & Fd	Labor	45,000.00	0.00	0.00	0.00	0.00	0.00%		
32	" BIGI & FG	Material	125,000.00	0.00	0.00	0.00	0.00	0.00%		
	Light Fixtures	Labor	25,000.00	0.00	0.00	0.00	0.00	0.00%		
34	Light rixtures	Material	25,000.00	0.00	0.00	0.00	0.00	0.00%		
	Trench / BF / Concrete	Labor	75,000,00	63,750.00	0.00	0.00	63,750.00	85.00%		
36	" Concrete	Material	145,000,00	123,250.00	0.00	0.00	123,250,00	85.00%		
37		Material	145,000,00	0.00	0.00	0.00	0.00	0.00%		
38				0.00	0.00	0.00	0.00	0.00%		
39			1 1	0.00	0.00	0.00		0.00%		
40		-	1	00,0	0.00	0.00	0.00	0.00%		
				0.00	0.00	0.00	0.00	0.00%		
41						0.00	0.00	0.00%		
42		- 1		00.0 00.0	0.00	00.0	0.00	0.00%		
43				0.00	0.00	0.00		0.00%		
44										
45		ł		0.00	0.00	0.00		0.00%		
46				0.00	0.00	0.00		0.00%		
47			440 400 50	0.00	0.00	0.00		0,00%		
48	SHEET <u>LABOR</u> SUBTOTAL		449,400.00	291,245.00					152,534.5	
	SHEET MATERIAL SUBTOTAL		621,000.00	426,179.00					189,735.5	
50	SUBTOTAL	ı	\$ 1,070,400.00	\$ 717,424.00	\$ 10,706.00	\$ -	\$ 728,130.00	9.19%	\$ 342,270.00	\$ 23,749.2

Α	В		С	D	E	F	G	l	Н	1 1
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE [PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
				(D + E)	((C x %) - D - F))	(NOT in D or E)	(D + E + F)	(G ÷ C)	(C - G)	stored material only
	LOWER ELOOP ARTA	ľ								
	LOWER FLOOR - AREA A									1
1	Electrical Equipment	Labor	5,000.00	4,950.00	0.00		4,950,00		50.00	
2 3	One-dulk Dunk 8 Edu	Material	00,000,00	0.00	0.00		0.00	0.00%	0.00	
4	Conduit - Brch & Fdr	Labor	20,000.00	19,800.00	0.00		19,800.00	99.00%	200.00	
5	Men Dark & Edu	Material	16,000.00	16,000.00	0.00	00.0	16,000.00	100,00%	0.00	
6	Wire - Brch & Fdr	Labor	10,000.00	9,900.00	0.00		9,900.00	99.00%	100.00	
7	Light Fistures	Material	24,000.00	24,000.00	0.00		24,000.00		0.00	
8	Light Fixtures	Labor	5,000,00	1,250.00	1,000.00	00.0	2,250.00		2,750.00	
9	Devises & Dista-	Material	4 500 00	0.00	0.00		0.00		0.00	
	Devices & Plates	Labor	1,500.00	0.00	0.00		0.00		1,500.00	
10	"	Material	5,000.00	0.00	4,750.00		4,750.00		250.00	
11				0.00	0.00	0.00	0.00		0.00	
12				0.00	0.00		0.00		0.00	
13	OWED 51 005 AD54 5			0.00	0.00		0.00		0.00	
14	LOWER FLOOR - AREA B		5 000 00	0.00	0.00	00.0	0.00		0.00	
15	Electrical Equipment	Labor	5,000.00	4,950.00	0.00		4,950.00		50.00	
16		Material	05.000.00	0.00	0.00	0,00	0.00		0.00	
17	Conduit - Brch & Fdr	Labor	25,000.00	24,750.00	0.00		24,750.00		250.00	
18	" NAS Dort & Edu	Material	16,000.00	16,000.00	0.00	00,0	16,000.00		0.00	
	Wire - Brch & Fdr	Labor	17,500.00	17,325.00	0.00	00.0			175.00	
20	" - - - -	Material	24,000.00	24,000.00	0.00	0,00			0.00	
21	Light Fixtures	Labor	7,500.00	1,875.00	375.00	00.0	2,250.00		5,250.00	
22	Desile - 0 District	Material	0,000,00	0.00	0.00	0,00	0.00		0.00	
23	Devices & Plates	Labor	2,000.00	0.00	0.00	00.0			2,000.00	
24 25		Material	5,000.00	0.00	4,750.00	00,0	4,750.00		250.00	
				0.00	0.00	00,0	0.00		0.00	
26 27		1		00.0 00.0	0.00	00,0 00,0	0.00		0.00	
28	LOWED FLOOR AREA		ļ	0.00	0.00	00.0			0.00	
	LOWER FLOOR - AREA C	Lobor	E 000 00	4,950.00	0.00	0.00			0.00 50.00	
29 30	Electrical Equipment	Labor Material	5,000.00	4,950.00	0.00	0.00	4,950.00		0.00	
31	Conduit Back 9 Edu		30,000,00		00.0					
32	Conduit - Brch & Fdr	Labor Material	16,000,00	29,700.00 16,000.00	0.00 0.00	00.00	16,000.00		300.00 0.00	
	 Wire - Brch & Fdr	Labor	20,000,00	19,800.00	0.00				200.00	
34	vile - bich & rui	Material	24,000.00	24,000.00	0.00				0.00	
35	Light Fixtures	Labor	9,500.00	2,375.00	475.00	0.00			6,650.00	
36	Light Fixtures	Material	9,500,00	2,373.00	0.00	0.00			0,00	
	Devices & Plates	Labor	2,500.00	0.00	0.00	0,00			2,500.00	
38	"	Material	5,000.00	0.00	4,750.00	0.00			250.00	
39		Iviaterial	3,000.00	0.00	0.00				0.00	
40				0.00	0.00				0.00	
41				0.00	0.00				0.00	
42				0.00	0.00				0.00	
43		1		0.00	0.00				0.00	
43		- 1	1	0.00	0.00				0.00	
45				0.00	0.00				0.00	
46				0.00	0.00				0.00	
40 47		1		0.00	0.00				0.00	
48	SHEET LABOR SUBTOTAL		165,500,00	141,625,00	1,850.00				22,025.0	
49	SHEET MATERIAL SUBTOTAL		135,000.00	120,000,00	14,250.00				750.0	
49 50	SUBTOTAL		\$ 300,500.00				\$ 277,725.00			

CONI	INUATION SHEET					Al	PPLICATION NUMBER:	21	PERIOD TO:	6/30/09
Α	В		С	D	E	F	G G		Н	l
ITEM	DESCRIPTION OF WORK		SCHEDULED	WORK	COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
				(D + E)	((C x %) - D - F))	(NOT in D or E)	(D+E+F)	(G÷C)	(C - G)	stored material only
									1	
	1st FLOOR - AREA A									
1	Electrical Equipment	Labor	5,500.00	5,445.00	0.00	0.00		99.00%	55.00	\$ 435.60
2	_ "	Material		0.00	0.00	0.00	0.00	0.00%	0.00	\$ -
	Conduit - Brch & Fd	Labor	26,500.00	25,175.00	0.00	0.00		95.00%	1,325.00	\$ 2,014.00
4	"	Material	36,000.00	36,000.00	0.00	0.00	36,000.00	100.00%	0.00	\$ -
	Wire - Brch & Fdr	Labor	19,000.00	15,200.00	950.00	0.00	16,150.00	85.00%	2,850,00	\$ 1,292.00
6	п	Material	54,000.00	48,600.00	2,700.00	0.00	51,300.00	95.00%	2,700.00	\$ -
	Light Fixtures	Labor	10,000,00	1,500.00	500.00	0.00	2,000.00	20.00%	8,000.00	\$ 160,00
8	87	Material		0.00	0,00	00,0	0.00	0.00%	0,00	\$ -
	Devices & Plates	Labor	3,000,00	0.00	0.00	0.00	0.00	0.00%	3,000,00	
10	u	Material	10,000.00	0.00	9,500.00	0,00		95,00%	500.00	
11		- 1		0.00	0.00	0.00		0.00%	0,00	,
12		1		0.00	0.00	00,0	0.00	0.00%	0.00	
13				0.00	0.00	00,0		0.00%	0.00	
14	1st FLOOR - AREA B			0.00	0.00	0.00		0.00%	0.00	
15	Electrical Equipment	Labor	10,000,00	9,900,00	0,00	00.0		99.00%	100.00	\$ 792,00
16	# The state of the	Material	1 (0,000,00)	0.00	0.00	0.00	0.00	0.00%	0.00	
	Conduit - Brch & Fdr	Labor	36,500,00	27,375.00	5,475.00	0.00		90.00%	3,650,00	
18	n	Material	36,000.00	32,400.00	3,600.00	0.00		100.00%	0.00	
	Wire - Brch & Fdr	Labor	26,000.00	13,000.00	5,200.00	0.00		70.00%	7,800.00	
20	n	Material	54,000.00	48,600.00	5,400.00	00.0	54,000.00		0.00	\$ 1,456.00
	Light Fixtures	Labor	12,500,00	625.00	1,250.00	0.00	1 975 00	100.00%	40.005.00	450.00
22	iii	Material	12,300,00		0,00			15.00%	10,625.00	\$ 150.00
	Devices & Plates	Labor	4,000,00	00.0 00.0	0.00	00,00		0.00%	0.00	\$ -
24	Devices & Flates	Material	10,000.00			0.00		0.00%	4,000.00	-
25		waterial	10,000.00	0.00	9,500.00	00,00		95.00%	500.00	\$ -
26				0.00	0.00	0.00	0.00	0.00%	0.00	
27		1		0.00	0.00	0.00	0.00	0.00%	0.00	
	4-4-FI 00D ADEA 0			0.00	0.00	0.00		0,00%	0.00	
	1st FLOOR - AREA C		44 000 00	0.00	0.00	0.00		0.00%	0.00	
	Electrical Equipment	Labor	11,000.00	10,890,00	0.00	0,00		99.00%	110.00	\$ 871.20
30	One data Perk 6 Pd.	Material	44 000 00	0.00	0.00	0,00		0.00%	0.00	
	Conduit - Brch & Fdr	Labor	41,000.00	38,950.00	0.00	0.00		95.00%	2,050.00	
32	"	Material	36,000.00	36,000.00	0.00	0,00		100.00%	0.00	
	Wire - Brch & Fdr	Labor	30,000.00	22,500.00	1,500.00	0.00		80.00%	6,000.00	
34	*	Material	54,000.00	48,600.00	5,400.00	0.00		100.00%	0,00	
	Light Fixtures	Labor	15,000.00	1,500.00	750.00	00,0		15.00%	12,750.00	
36	"	Material		0.00	0,00	0.00		0.00%	0.00	\$ -
37	Devices & Plates	Labor	5,000.00	0,00	0,00	0.00		0.00%	5,000.00	\$ -
38	u u	Material	10,000,00	0.00	9,500.00	0,00	9,500.00	95,00%	500.00	\$ -
39		i		0.00	0.00	0.00	0.00	0.00%	0.00	
40				0.00	0.00	00,0	0.00	0,00%	0.00	
41			1	0.00	0.00	00,0		0.00%	0.00	İ
42]	0.00		00,00				
43				0.00						
44		1		0.00						
45				0.00						
46				0,00						
47				0.00						
	SHEET LABOR SUBTOTAL		255,000,00	172,060,00					67,315.00	
	SHEET MATERIAL SUBTOTAL		300,000.00	250,200.00					4,200.00	
	SUBTOTAL		\$ 555,000.00				\$ 483,485.00	6.10%		

CONTINUATION SHEET

APPLICATION NUMBER: 21 PERIOD TO: 6/30/09

Α	В		С	D	E	F	G		Н	1
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
				(D + E)	((C x %) - D - F))	(NOT in D or E)	(D + E + F)	(G ÷ C)	(C - G)	stored material only
	1-4 FLOOD ADEA A		•						· · · · · · · · · · · · · · · · · · ·	
	2nd FLOOR - AREA A									
1 2	Electrical Equipment	Labor Material	5,000.00	4,950.00	0.00	0.00	4,950.00			
3	Conduit - Brch & Fd	Labor	20,000,00	0.00	0.00	0.00	0.00	0.00%		
4	onduit - Digit & Fu	Material	20,000.00 30,000.00	19,600,00 30,000.00	0.00	0.00	19,600.00			
	Wire - Brch & Fdr	Labor	10,000,00	9,800.00	0,00 0,00	00,0 00,0	30,000.00			
6	#	Material	46,000.00	46,000.00	0.00	0.00	9,800.00 46,000.00	98.00%		
7	Light Fixtures	Labor	5,000,00	2,000.00	1,250.00	00.0	3,250.00			
8	n	Material	0,000.00	0.00	0.00	0.00	0.00	0.00%		
	Devices & Plates	Labor	1,500,00	0.00	150,00	0.00	150.00	10.00%		
10	H	Material	8,000.00	0.00	7,600.00	00.0	7,600.00	95.00%		
11			' ' ' '	0.00	0.00	0.00	0.00	0.00%		
12		1		0.00	0.00	0,00	0.00	0.00%		
13				0.00	0.00	0.00	0.00	0.00%		
	2nd FLOOR - AREA B		1	0.00	0.00	0.00	0.00	0,00%		
	Electrical Equipment	Labor	5,000.00	4,000.00	500.00	0.00	4,500.00	90.00%	500.00	
16	п	Material		0.00	0.00	0.00	0.00	0.00%		
	Conduit - Brch & Fdr	Labor	25,000,00	22,500.00	1,250.00	0.00	23,750.00	95.00%	1,250.00	\$ 1,900.00
18	n	Material	30,000,00	30,000.00	0.00	0.00	30,000.00	100.00%	0.00	\$ -
	Wire - Brch & Fdr	Labor	17,500.00	8,750.00	3,500.00	0.00	12,250.00	70.00%	5,250.00	\$ 980.00
20		Material	46,000.00	23,000.00	23,000.00	0.00	46,000.00		0.00	
21	Light Fixtures	Labor	7,500.00	1,125.00	750,00	0,00	1,875.00	25.00%	5,625.00	\$ 150,00
22		Material		00.0	0.00	0.00	0.00	0.00%	0.00	
	Devices & Plates	Labor	2,000.00	0.00	0.00	0.00	0.00	0.00%		
24	n	Material	8,000,00	0.00	7,600.00	0.00	7,600.00	95.00%	400.00	
25				0.00	0.00	0.00	0.00	0.00%		
26 27				0.00	0.00	00.0	0.00	0.00%		
	2nd FLOOR - AREA C			0.00	0.00	00.0	0.00	0.00%		
	Electrical Equipment	Labor	5,000,00	0.00 4,950.00	0.00 0.00	00.0 00.0	0.00	0.00%		
30	e cieculos Equipment	Material	3,000,00	4,950.00	0.00	0.00	4,950.00 0.00	99.00% 0.00%		
	Conduit - Brch & Fdr	Labor	30,000,00	29,400.00	0.00	0.00	29,400.00	98,00%		
32	" DIGITAL G	Material	30,000,00	30,000,00	0.00	0.00	30.000.00			
	Wire - Brch & Fdr	Labor	20,000,00	18,000,00	1,000.00	0.00	19,000.00	95.00%		
34	н	Material	46,000.00	46,000.00	0.00	00.0	46,000.00			
35	Light Fixtures	Labor	9,500,00	3,800.00	2,375.00	0.00	6,175.00			
36	"	Material	' '	0.00	0.00	0.00	0.00			
37	Devices & Plates	Labor	2,500.00	0.00	625.00	0.00	625.00			
38	•	Material	8,000.00	0.00	7,600.00	0.00	7,600.00	95,00%	400.00	\$ -
39				0.00	0.00	0,00	0.00	0.00%	0.00	
40		1		0.00	0.00	0.00	0.00	0.00%	0.00	ı
41		1		0.00	0.00	00.0				
42				0.00	0.00	0.00			0.00	
43				0.00	0.00				0.00	
44				0.00	0.00	0,00	0.00			
45				0.00	0.00		0.00			
46				0.00	0.00					
47				0.00	0.00	0.00	0.00			
48	SHEET <u>LABOR</u> SUBTOTAL		165,500.00	128,875.00	11,400.00				25,225.00	
49	SHEET MATERIAL SUBTOTAL		252,000.00	205,000.00	45,800.00		250,800.00		1,200.00	
50	SUBTOTAL	1	\$ 417,500.00	\$ 333,875.00	\$ 57,200.00	\$ -	\$ 391,075.00	4.93%	\$ 26,425.00	\$ 11,222.00

CONT	INUATION SHEET					A	PPLICATION NUMBER:	21	PERIOD TO:	6/30/09
Α	В		С	D	E	F	G		H	T
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
			ļ	(D + E)	((C x %) - D - F))	(NOT in D or E)	(D+E+F)	(G ÷ C)	(C - G)	stored material only
	3rd FLOOR - AREA A							:		
	Electrical Equipment	Labor	5,000,00	4,950,00	0.00	0.00	4,950.00	99.00%	50.00	\$ 396.00
2	и	Material	1	0.00	0.00	0.00		0.00%	0.00	
	Conduit - Brch & Fd	Labor	20,000.00	19,600.00	0.00	0.00		98.00%	400.00	
4	II .	Material	32,000,00	32,000.00	0.00	0.00		100.00%	0.00	
	Wire - Brch & Fdr	Labor	10,000,00	9,800,00	0,00	0,00		98.00%	200.00	\$ 784.00
6	ti .	Material	48,000,00	48,000.00	0,00	0,00			0.00	
7	Light Fixtures	Labor	5,000.00	1,250.00	1,000.00	0.00			2,750.00	
8	п	Material		0.00	0.00	00,0		0.00%	0.00	
	Devices & Plates	Labor	1,500,00	0.00	0.00	0.00	0.00	0.00%	1,500.00	
10	н	Material	8,000.00	0.00	7,600.00	0.00	7,600.00	95.00%	400.00	\$ -
11				0.00	0,00	0.00	0.00	0.00%	0.00	
12				0.00	0.00	0.00		0.00%	0.00	
13				0.00	0.00	0.00		0.00%	0.00	
14	3rd FLOOR - AREA B			0.00	0.00	00,0		0.00%	0.00	
	Electrical Equipment	Labor	5,000.00	4,000.00	500,00	0,00			500.00	
16		Material		0.00	0.00	0.00		0.00%	0.00	
	Conduit - Brch & Fdr	Labor	25,000.00	17,500.00	2,500.00	0.00		80.00%	5,000.00	
18	" Marine Devil & E.D.	Material	32,000.00	28,800.00	3,200.00	00,0		100.00%	0.00	
	Wire - Brch & Fdr	Labor	17,500.00	5,250.00	1,750.00	0,00		40.00%	10,500.00	
20		Material	48,000.00	14,400.00	33,600.00	0.00			0.00	
21 22	Light Fixtures	Labor	7,500.00	1,125.00	1,500.00	0.00			4,875.00	
	Devices & Plates	Material Labor	2,000.00	0.00 0.00	0,00 0,00	0,00 00,0		0.00%	0.00	
23	Devices & Plates	Material	8,000.00	0.00	7,600.00	00.0		0.00% 95.00%	2,000.00 400.00	
25		ivialeriar	0,000.00	0.00	0.00	0.00		0.00%	0.00	
26			1	0.00	0.00	0.00		0.00%	0.00	İ
27				0.00	0.00	0.00		0.00%	0.00	
	3rd FLOOR - AREA C		1	0.00	0.00	0.00		0.00%	0.00	
	Electrical Equipment	Labor	5,000.00	4,950.00	0.00	0,00		99.00%	50.00	\$ 396.00
30	11	Material	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.00	0.00	0.00		0.00%	0.00	
	Conduit - Brch & Fdr	Labor	30,000,00	29,400.00	0.00	00.0			600.00	
32	ti .	Material	32,000,00	32,000.00	0.00	00.00			0.00	
	Wire - Brch & Fdr	Labor	20,000.00	16,000,00	2,000.00	0,00			2,000.00	\$ 1,440.00
34	n	Material	48,000.00	43,200,00	4,800.00	0.00			0.00	\$ -
35	Light Fixtures	Labor	9,500.00	2,375.00	950.00	0.00	3,325.00	35.00%	6,175.00	
36	11	Material		0.00	0.00	0,00	0.00	0.00%	0,00	\$ -
	Devices & Plates	Labor	2,500.00	0.00	0.00	0,00			2,500.00	
38	tt	Material	8,000,00	0.00	7,600.00	00,0			400.00	
39				0.00	0.00	0.00			0.00	
40				0.00	0.00	0.00				
41				0.00	0.00	0,00			0.00	
42				0.00	0.00	0.00		0.00%	0.00	
43		ļ		0.00	0.00	0.00				
44				0.00	0.00	0.00				
45				0.00	0.00	0,00				
46				0.00	00,00	0.00				
47 48	SHEET LABOR SUBTOTAL		165,500.00	0,00 116,200.00	0.00 10,200.00				39,100.00	
	SHEET MATERIAL SUBTOTAL		264,000.00	198,400.00	64,400.00				1,200.00	
	SUBTOTAL		\$ 429,500.00				\$ 389,200.00	4.91%		

48

49 50 SHEET <u>LABOR</u> SUBTOTAL SHEET <u>MATERIAL</u> SUBTOTAL SUBTOTAL

J11 I	INUATION SHEET					Al	PPLICATION NUMBER:	21	PERIOD TO:	6/30/09
Α	В		С	D	E	F	G		Н	
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
UMBER	İ		VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50
				(D + E)	((C x %) - D - F))	(NOT in D or E)	(D+E+F)	(G ÷ C)	(C - G)	stored material
	4th FLOOR - AREA A								, ,	
1	Electrical Equipment	Labor	2,500.00	2,375.00	0.00	0,00	2 275 00	05.000	405.00	
2	#	Material	2,000.00	2,373.00	0.00	00.00	2,375.00	95.00%	125.00	
3	Conduit - Brch & Fd	Labor	16,000,00	13,600.00	800.00	00,0	0.00 14,400.00	0.00%	0.00	
4	"	Material	24,000.00	24,000.00	0.00	00.00	24,000.00	90.00%	1,600.00	
5	Wire - Brch & Fdr	Labor	12,000,00	7,800.00	1,200.00	0.00	9,000.00	100.00%	0.00	
6	" Biolita (al	Material	32,000.00	32,000.00	0.00	0.00	9,000.00	75.00%	3,000.00	
7	Light Fixtures	Labor	3,000,00	300.00	450.00	0.00	32,000.00		0.00	*
8	" " Xtares	Material	3,000.00	0.00	0.00		750.00	25.00%	2,250.00	
9	Devices & Plates	Labor	4 500 00			00.0	0.00	0.00%	0.00	
10	"		1,500.00	0.00	1,425.00	0.00	1,425.00	95.00%	75,00	
	t "	Material	6,000.00	0.00	0.00	0.00	0.00	0.00%	6,000.00	\$
11	AL FLOOR AREA R			0.00	0.00	0.00	0.00	0.00%	0.00	
12	4th FLOOR - AREA B	l		0.00	0.00	0.00	0.00	0.00%	0.00	
13	Electrical Equipment	Labor	3,500.00	2,975.00	175,00	00,0	3,150.00	90.00%	350.00	
14	"	Material		0.00	0.00	0.00	0.00	0.00%	0.00	
15	Conduit - Brch & Fdr	Labor	22,500.00	13,500.00	2,250.00	0.00	15,750.00	70.00%	6,750.00	\$ 1,26
16	n n	Material	24,000.00	14,400.00	9,600.00	0,00	24,000.00	100.00%	0.00	\$
7	Wire - Brch & Fdr	Labor	15,000.00	3,000.00	4,500.00	0.00	7,500.00	50.00%	7,500.00	\$ 60
18	"	Material	32,000.00	6,400.00	25,600.00	0.00	32,000.00	100.00%	0.00	\$
19	Light Fixtures	Labor	3,500,00	525.00	350.00	0,00	875.00	25.00%	2,625.00	\$
20	*	Material	·	0.00	0.00	0,00	0.00	0.00%	0.00	
21	Devices & Plates	Labor	2,500,00	0.00	0,00	0.00	0.00	0.00%	2,500.00	
22	II .	Material	6,000.00	0.00	0.00	0.00	0.00	0.00%	6,000.00	
23				00,0	0.00	0.00	0.00	0.00%	0.00	Ψ
24	4th FLOOR - AREA C			0.00	0.00	0.00	0.00	0.00%	0.00	
25	Electrical Equipment	Labor	4,000.00	3,800.00	0,00	0,00	3,800.00	95.00%	200,00	\$ 3
26	a	Material	4,000.00	0.00	0.00	0,00	0.00	0.00%	0.00	
27	Conduit - Brch & Fdr	Labor	25,500.00	21,675.00	1,275.00	0,00	22,950.00	90.00%	2,550.00	
28	n	Material	24,000.00	24,000.00	0.00	0,00	24,000.00	100.00%	2,550.00	
9	Wire - Brch & Fdr	Labor	17,000.00	11,050.00	1,700.00	00.0	12,750.00	75.00%		
10	a a	Material	32,000,00	32,000.00	0.00	0,00			4,250.00	
11	Light Fixtures	Labor	4,500.00	675.00			32,000.00		0.00	
32	n rixtures		4,300.00		450.00	0.00	1,125.00		3,375.00	
	Devises & Distan	Material	2 000 00	0.00	0.00	00.0	0.00	0.00%	0.00	
3	Devices & Plates	Labor	3,000.00	0.00	0.00	0.00	0.00	0.00%	3,000.00	
34		Material	6,000.00	0.00	5,700.00	00,0	5,700.00	95.00%	300.00	\$
35				0.00	0.00	0.00	0.00	0.00%	0,00	
36	Penthouse - AREA B & C			0.00	0.00	0.00	0.00	0.00%	0.00	
37	Electrical Equipment	Labor	2,500.00	2,250.00	0.00	0.00	2,250.00	90.00%	250.00	\$ 1
88	· ·	Material		0.00	0.00	0.00	0.00	0.00%	0.00	\$
39	Conduit - Brch & Fd	Labor	17,000.00	16,150.00	0.00	0.00	16,150.00	95,00%	850,00	\$ 1,2
1 0	et .	Material	32,000.00	30,400.00	0.00	0,00			1,600.00	
41	Wire - Brch & Fdr	L.abor	14,000.00	11,900.00	0.00	0.00	11,900.00	85,00%	2,100.00	
12		Material	48,000.00	40,800.00	0.00	0.00			7,200.00	
13	Light Fixtures	Labor	3,000.00	2,250.00	300.00	0.00			450.00	
44	""	Material		0.00	0.00	00.0			0.00	
45	Devices & Plates	Labor	2,500,00	0.00	0.00	00,0			2,500.00	
46	"	Material	8,000.00	0.00	7,600.00	0.00			400.00	
47			5,555.50	0.00	0.00	0.00	0.00		0.00	-
48	SHEET LABOR SUBTOTAL		175,000,00	113.825.00					46.300.00	10.2

14,875.00 48,500.00 63,375.00 \$

113,825.00 204,000.00 317,825.00 \$

0,00 0.00

4.81% \$

46,300.00 21,500.00 67,800.00 \$

128,700.00 252,500.00 381,200.00

175,000.00 274,000.00 449,000.00 \$

10,296.00 0.00

6/30/09

Α	В		C	D	E	F	l G		Н	
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
	T. Mail Sur.			(D + E)	((C x %) - D - F))	(NOT in D or E)	(D+E+F)	(G ÷ C)	(C - G)	stored material only
	Faultaniant & Contains		1				· ·			
1	Equipment & Systems	A data win 1	4 005 500 00	FF0 00F 00	450 005 00					
2	LIGHT FIXTURES (INCLUDING THEATERS)	Material	1,005,500.00	553,025.00	150,825.00	00,0			301,650.00	
	(labor bkdw on floors & areas) SWGEAR / XFRMS / PANELS / TVSS / BUS	Material	753,000.00	0,00	0.00	00.0		0.00%	0.00	
4	(labor bkdw on floors & areas)	Material	755,000.00	753,000.00 0.00	0.00 0.00	00,0 00,0		100.00%	0.00	
5	GENERATOR / ATS	Labor	15,000,00	14,250.00	0.00	00.0 00.0		0.00% 95.00%	0.00	
6	"	Material	86,000,00	86,000.00	0.00	00,0 00,0	,	100,00%	750.00 0.00	
-	FIRE ALARM	Labor	65,000,00	29,250.00	0.00	0.00		45.00%	35,750.00	
8	"	Material	50,000,00	33,000.00	0.00	17,000,00		100.00%	0.00	
	CABLE TRAY	Labor	15,000.00	15,000.00	0.00	0,00		100.00%	0.00	
10	п	Material	19,000,00	19,000,00	0.00	0.00		100.00%	0.00	
11	TECH ROUGH IN - 16050T (voice & data)	Labor	74,000.00	62,900.00	3,700.00	0.00		90.00%	7,400.00	
12	u .	Material	296,000.00	224,861.00	0.00	65,219.00		98.00%	5,920.00	
		Labor	174,000.00	26,100.00	8,700.00	0.00	34,800.00	20.00%	139,200.00	\$ 2,784.00
12		Material	696,000.00	174,000.00	34,800.00	139,200,00		50.00%	348,000.00	\$ 11,136.00
	CENTRAL SOUND - 16823	Labor	17,000.00	8,500.00	1,700.00	0.00		60,00%	6,800.00	
14 15	COUNT FIELD EVETERA 40040T	Material	72,000,00	50,600.00	0.00	17,800.00		95.00%	3,600.00	
15 16	SOUND FIELD SYSTEM - 16940T	Labor Material	29,000,00 119,000,00	4,350,00	2,900.00	0.00		25.00%	21,750.00	
	BROADBAND - 16951T	Labor	9,000,00	17,850.00 3,150.00	11,900.00 3,150.00	29,750,00 0,00		50.00%	59,500.00	
18	" 109311	Material	37,000.00	12,950.00	12,950.00	00,0		70.00% 70.00%	2,700.00 11,100,00	
	INTERGRATED AUDIO - 16953T	Labor	70,000.00	7,000.00	3,500.00	00,0		15.00%	59,500.00	
18	"	Material	283,000,00	28,300,00	14,150.00	00.0		15.00%	240,550.00	
	NETWORK ELEC - 16962T	Labor	27,000.00	540,00	0.00	0,00		2.00%	26,460.00	
20	"	Material	111,000,00	2,220.00	0.00	0.00		2.00%	108,780.00	
	SECURITY ACCESS CONTROL - 16610	Labor	11,000,00	9,350.00	0.00	0.00		85.00%	1,650.00	
22	11	Material	47,000.00	43,300.00	0,00	3,700,00	-,	100.00%	0.00	
	SECURITY INTRUSION DETECTION - 16611	Labor	00,000,8	6,800.00	0.00	0.00	6,800.00	85.00%	1,200,00	
24	п	Material	32,000.00	20,000.00	0.00	12,000.00	32,000.00	100.00%	0.00	
	SECURITY - CCTV - 16640	Labor	33,000,00	28,050.00	0.00	0.00		85.00%	4,950.00	
26	"	Material	133,000.00	95,000.00	0.00	38,000,00		100.00%	0.00	
	SCOREKEEPING BOARD - 16660	Labor	1,500.00	0.00	0.00	0.00		0.00%	1,500.00	
28 29	CDOUND LOOP	Material	7,000.00	0.00	0.00	00,0		0.00%	7,000.00	
30	GROUND LOOP	Labor Material	5,000,00 21,000,00	5,000.00 21,000.00	0.00 0.00	00.0 00.0		100.00% 100.00%	00.0 00.0	
31	HOUSEKEEPING PADS	Labor	7,600,00	7,600.00	0.00	0.00		100.00%	0.00	
32		Material	2,000,00	2,000.00	0.00	00.0		100.00%	0.00	
33	CO#001 & 006 - pco 026 x120 - security	Labor	4,000.00	3,400.00	200.00	0.00		90.00%	400.00	
34		Material	19,149.00	16,276.65	957.45	0.00		90.00%	1,914.90	
35		Labor	12,960.00	12,960.00	0.00	00,0		100,00%	0.00	
36	n .	Material	8,401.00	8,401.00	0.00	0.00	8,401.00	100.00%	0.00	
37	CO#003 - pco 056 x149 - kitchen	Labor	(789.00)	-789.00	0.00	00.0	-789,00	100.00%	0.00	
38	ut	Material	(1,047.00)	-1,047.00	0.00	0.00			0.00	
39	CO#004 - pco 111 x205 - security	Labor	5,000.00	4,250.00	250.00	00,0		90.00%	500.00	
40	#	Material	59,457.00	50,538.45	2,972.85	0.00		90.00%	5,945.70	
41	CO#005 - pco 025 x119 -feeders	Labor	25,879.00	25,879.00	0.00	0.00		100,00%	0.00	
42	"	Material	9,837.00	9,837.00	0.00	00.0		100.00%	0.00	
43	CO#007 - pco 169 x260 - 300 seat lyntec brkrs		680,00	0.00	0.00	00,0		0.00%	680.00	
44 45	CO#008 per 170 v266 time 62 for control or	Material	260.00	0.00	0.00	260.00		100.00%	0.00	
45 46	CO#008 - pco 170 x266 - type S3 fix curved w	Labor Material	1,114,00 2,755,00	00.0 00.0	00.00 00.0	00,0 00,0		0.00% 0.00%	1,114.00 2,755.00	•
46 47	CO#009 - pco 158 x246 - Central Sound	Labor	18,759.00	18,759.00	0.00	0.00			2,755.00	
47 48	" " CO#000 - pco 100 x240 - Central 300110	Material	28,478.00	28,478.00	0.00	0.00			0.00	
49		i i i a con con	20,770,00	0,00	0.00	0.00		0.00%	0.00	
50	SHEET LABOR SUBTOTAL		628,703.00	292,299.00	24,100.00	0.00		0.0076	312,304.00	
51	SHEET MATERIAL SUBTOTAL		3,896,790.00	2,248,590.10	228,555.30	322,929.00			1,096,715.60	
52	SHEET SUBTOTAL		\$ 4,525,493.00	\$ 2,540,889.10	\$ 252,655.30	\$ 322,929.00	\$ 3,116,473.40	39.32%	\$ 1,409,019.60	\$ 51,146.24

CONTINUATION SHEET

APPLICATION NUMBER: 21

PERIOD TO:

6/30/09

Α	В		С	D	E	F	G		Н	
ITEM	DESCRIPTION OF WORK		SCHEDULED		COMPLETED	MATERIALS	TOTAL COMPLETED	%	BALANCE	RETAINAGE
NUMBER			VALUE	PREVIOUS	THIS	PRESENTLY	& STORED		TO FINISH	8%
				APPS.	PERIOD	STORED	TO DATE			labor up to 50%
		ļ		(D + E)	((C x %) - D - F))	(NOT in D or E)	(D + E + F)	(G ÷ C)	(C - G)	stored material only
1	CO#010 - pco 151 x12869 - tray convert to co	lahor	2,082.00	2,082,00	0.00	0.00	0,000,00	400 0004		
2	"	I	1 '	,	0.00	0.00	,	100.00%	0.00	
3	CO#011 - pco 162 x14650 OT holiday masonr	Material	4,135.00	4,135.00	0.00	0.00	4,135.00	100.00%	0.00	
4	Tower - pco 102 x 14050 OT Holiday Masolii	Material	5,985.00	5,985.00 0.00	0.00 0.00	0.00	5,985.00	100.00%	0.00	
5	CO#012 - pco 090 x183 - stair relay control	Labor	1,950,00	195.00	0.00	00.0 00.0	0.00 195.00	0.00%	0.00	
6	" poo ooo x too out totaly cottage	Material	4,094.00	4,094.00	0.00	0.00	4,094.00	10.00% 100.00%	1,755.00 0.00	
7	CO#013 - pco 107 x200 - WF1X change light t		4,388.00	0.00	0.00	0.00	0.00	0.00%	4,388.00	
8	" ,	Material	12,502,00	0.00	0.00	0.00	0.00	0.00%	12,502.00	
7	CO#014 - pco 142 x250 - wtr meter pit light	Labor	419.00	0.00	209.50	0.00	209.50	50.00%	209.50	
8	н	Material	987.00	0.00	493.50	0.00	493.50	50.00%	493.50	
9	CO#015 - pco 269 x176 - technology sleeves	Labor	4,908.00	4,908.00	0.00	00.0	4,908.00	100.00%	0.00	
10		Material	10,021.00	10,021.00	0.00	0.00	10,021.00	100.00%	0.00	\$ -
11	CO#016 - pco 189 x261 - dark room electric ro		6,400.00	6,400.00	0.00	0.00	6,400.00	100.00%	0.00	\$ 512.00
12	CO#047 non 199 work Marin Commit Trans-	Material	8,550.00	8,550.00	0.00	0.00	8,550.00	100.00%	0.00	\$ -
13 14	CO#017 - pco 188 - x265 - Move Sound Trans		14,850.00	0.00	13,365.00	00.0	13,365.00	90.00%	1,485.00	
13	CO#018 - pco 168 - x271 - Add Mic & Intercon	Material	15,424.00 7,605.00	0.00 0.00	13,881.60 0.00	0.00	13,881.60	90.00%	1,542.40	\$ -
14	"	Material	5,502,00	0.00	0.00	00.0 00.0	0.00	0.00%	7,605.00	
	CO#019 - pco 164 - x262 - Vol Cntl Override	Labor	7,433.00	0.00	3,716.50	0.00	3,716.50	0.00% 50.00%	5,502.00 3,716.50	
16	"	Material	5,250,00	0.00	2,625.00	0.00	2,625.00	50.00%	2,625.00	
	CO#020 - pco 190 - x274 - Security Monitors	Labor	358.00	0.00	0.00	0.00	0.00	0.00%	358.00	
18	"	Material	9,439.00	0.00	0.00	0.00	0.00	0.00%	9,439.00	\$ -
	CO#021 - pco 116 - x211 - Welder Down Draft	Labor	2,439.00	0.00	609.75	0.00	609.75	25.00%	1,829.25	
20	и	Material	1,741.00	0.00	435.25	0.00	435.25	25.00%	1,305.75	
	CO#022 & 033 - pco 194 - x284 Move Co.Sw		2,087.00	0.00	2,087.00	0.00	2,087.00	100.00%	0.00	\$ 166.96
22	00,000	Material	2,318.00	0.00	2,318.00	0.00	2,318.00	100.00%	0.00	\$ -
23 24	CO#023 - pco 172 - x289 - Elev#1 Emg Ccts	Labor	4,352.00	0.00	1,088.00	0.00	1,088.00	25.00%	3,264.00	
	CO#024 non 192 w275 Due Fub For	Material Labor	2,471.00	0.00	617.75	0.00	617.75	25.00%	1,853.25	
26	CO#024 - pco 183 - x275 Dye Exh Fan	Material	1,665.00 1,089.00	00.0 00.0	0.00 0.00	0.00	0.00	0.00%	1,665.00	
	CO#025 - pco 185 - x276 Move Backbrd powe		639.00	0.00	639.00	0.00 0.00	0.00 639.00	0.00% 100.00%	1,089.00 0.00	\$ - \$ 51.12
28	# Poo 100 " AE10 More Buoksia powe	Material	114.00	0.00	114.00	00.0	114.00	100.00%	0.00	\$ 51.12
	CO#026 - pco - x	Labor		0.00	0.00	00.0	0.00	0.00%	0.00	
30	я	Material		0.00	0.00	0.00	0.00	0.00%	0.00	
31	CO#027 - pco 196 - x283 Rigging Cntl Recpt	Labor	1,160.00	0.00	580.00	0.00	580.00	50.00%	580.00	
32	н	Material	700.00	0.00	350.00	0.00	350.00	50.00%	350.00	
	CO#028 - pco 197 - x285 Lyntec pnl feeder	Labor	695.00	0.00	0.00	0.00	0.00	0.00%	695.00	\$ -
34		Material	791.00	0.00	0.00	0.00	0.00	0.00%	791.00	
	CO#029 - pco 198 - x287 AHU light/sw/recpt	Labor	2,680.00	0.00	0.00	00.0	0.00	0.00%	2,680.00	
36 37	CO#020 === 400 ==000 De=#M=!=+====+ 0 #	Material	1,093.00	0.00	0.00	0.00	0.00	0.00%	1,093.00	
37	CO#030 - pco 199 - x288 Roof Maint recpt & It	Labor Material	813.00	0.00	0.00	0.00	0.00	0.00%	813.00	
	CO#031 - pco 200 - x290 Dust Collector pwr	Labor	508.00 1,892.00	00.0 00.0	0.00 0.00	0.00 0.00	0.00 0.00	0.00% 0.00%	508.00	
40	" Poo 200 - A200 Dust Collector pwi	Material	2,685.00	0.00	0.00	0.00	0.00	0.00%	1,892.00 2,685.00	
41	CO#032 - pco 195 - x286 AHU Duct Smk Det	Labor	6,201.00	0.00	0.00	0.00	0.00	0.00%	6,201.00	
42	"	Material	8,376.00		0.00	0.00	0.00	0.00%	8,376.00	
43		Labor			0.00	0.00	0.00	0.00%	0.00	
44		Material	<u> </u>		00.0	0.00	0.00	0.00%	0.00	
45				0.00	0.00	0.00	0.00	0.00%	0.00	
46	SHEET <u>LABOR</u> SUBTOTAL		81,001.00	19,570.00	22,294.75	0.00	41,864.75		39,136.25	3,349.18
47	SHEET MATERIAL SUBTOTAL		97,790.00	26,800.00	20,835.10	0.00	47,635.10		50,154.90	0.00
48	SHEET SUBTOTAL	l	\$ 178,791.00	\$ 46,370.00	\$ 43,129.85	\$ -	\$ 89,499.85	1.13%	\$ 89,291.15	\$ 3,349.18

53	JOB TOTAL LABOR	2,085,604.00	1,275,699.00	105,965.25	-	1,381,664.25	17.43%	703,939.75	B3,424.16 50%
54	JOB TOTAL MATERIAL	5,840,580.00	3,679,169.10	473,025.90	322,929.00	4,475,124.00	56.46%	1,365,456.00	25,834.32
55	TOTAL	\$7,926,184.00	\$4,954,868.10	\$ 578,991.15	322,929.00	\$ 5,856,788.25	73.89%	\$2,069,395.75	\$ 109,258.48

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	done to date hereof.		
NOTE-If the fact is that every laborer he the amount due or to become due.	as been paid in full, then recite: "Every laborer has t	een paid in full." If not, then g	give each unpaid laborer's name and address
NAME	ADDRESS	HOURS	Amount Due or to Become Due for Labor Furnished to Date Hereof
Affiant further states that there is due or to become due to BEACON ELECTRIC COMPANY york performed or machinery, material or fuel furnished to 1735 / 953 . 19 (Owner or Contractor) That the amounts due or to become due to said sub-contractors, material men and laborers, for work done shed to the date hereof, to 2 BEACON ELECTRIC COMPANY utily and correctly set forth opposite their names, respectively, in the aforesaid statements, and further evidenced shing machinery, material or fuel, hereto attached, and made a part hereof. Affiant further says that 8 BEACON ELECTRIC COMPANY not employed or purchased or procured machinery, material or fuel from, or sub-contracted with any person, a above mentioned, and owes for no labor performed, or machinery, material or fuel furnished, under said contents and owes for no labor performed, or machinery, material or fuel furnished, under said contents and owes for no labor performed, or machinery, material or fuel furnished, under said contents and the said contents and the said contents and the said contents and the said contents and the said contents and the said contents and said content			
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irnished to the date hereof, to 2	BEACON ELECTRIC COMPANY		
rnished to the date hereof, to ² refully and correctly set forth oppos	ite their names, respectively, in the aforesaid	statements, and further	
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School for Creative & Performing Arts

108 W. Central Parkway Cincinnati, Ohio 45202 Received 6/24/09

Contractor's Name: **BEACON ELECTRIC COMPANY**Address: 7815 REDSKY DRIVE, CINCINNATI, OH!O 45249

Date: 06/22/09
Application No. 21

Contractor Pay Application Summary

Project Name:

School for Creative and Performing Arts

Bid Package No. BP6 - Electrical & Technology

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1	Original Contract Amount	\$7,552,500.00	
2	Net Changes to Date	\$ 373,684.00	
3	Current Contract Amount	\$7,926,184.00	
4	Labor Completed to Date	\$ 1,381,664.25	
5	Material Completed to Date	\$ 4,475,124.00	
6	Total Work Completed to Date	\$ 5,856,788.25	
7	Store Material to Date \$ 322	,929.00	.*
8	Less Retained to Date	\$ 109,258,48	
9	Total Amount Due	\$5,747,529.77	
10	Less Previous Payments	\$5,011,576,58	
11	Less Amount Retained to Cover Lien	\$ -	
	Less Amount Retained for Liquidated Damages	\$ _	
	Less Other Amounts Withheld	\$	
14		\$ 735,953.19	OK, WT#.
15	Balance to Complete	\$2.178.654.23	-7,50,710

OSFC approval required for the following	ng contract ad	ljustm	ents:	······································
Assessment of liquidated damages Other amounts withheld				
Ohio School Facilities Commission			Date	
Comments:			en en en en en en en en en en en en en e	
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00400-J

Contractor Pay Application

APPLICATION AND	CERTIFICATE	FOR PAYMEN	NT			
TO OWNER:	Cincinnati Put 2315 Iowa Ave Cincinnati, OF	enue	PROJECT:	School for Creative and Performing Arts 108 West Central Parkway Cincinnati, OH 45202	APPLICATION No: PERIOD TO: PROJECT NOS: CONTRACT DATE:	28.00 12/31/09
FROM CONTRACTOR:	TP Mechanica 1500 Kemper Cincinnati, OF	Meadow Drive	VIA ARCHITECT:	Cole Russell + Fanning Howey + Moody N 537 Pete Rose Way, Suite 200 Cincinnati, OH 45202	lolan	Cynthia A. Federle Notary Public, State of Or My Commission Expires 04-05
CONTRACT FOR:					N.	Continue de des
Application is made for payment Continuation sheet is attached.			Contract	completed in accordance payments previously pa	ce with the Contract Do aid by the State have be contractor's obligations	by this pay request has been becoments and that all progress een applied by the Contractor to incurred in connection with the
 ORIGINAL CONTRACT Net Change by Change CONTRACT SUM TO D TOTAL COMPLETED & RETAINAGE 	Orders	\$ \$	5511777.00 92584.67 5604361.67 5517417.30		servations, the firm affir	Date Date ms that the work has progressed to the
8. 8-50% of Completer 8% of Stored Mater Total Retainage	ial\$		170328.77 170328.77	1	inciss indicated on the	12/17/09
6. TOTAL EARNED LESS 7. LESS PREVIOUS CERT			5347088.53 5327055.77	//		Date
8. CURRENT PAYMENT [20032.76	Wellam T	Hulsen	12/10/09
9. BALANCE TO FINISH, I	NCLUDING RETA	AINAGE\$	257273.14	Construction Manager	,	Ďate /
Change Order/Contract		ADDITIONS	DEDUCTIONS	Approved		
Total Changes appro		92584.67		Approved:		
Total approved this mon	th					
TOTA	LS	92584.67		School District Treasure	er	Date
NET CHANGES by Cha		9258	4.67			

TEM			0.5202-0.004-0.007-0.007-0.00-0		COMPLETED	MATERIALS	TOTAL COMPLETED			
MBER	DECORIONIO I A-112		SCHEDULED	PREVIOUS	THIS	PRESENTLY	& STORED		BALANCE	
	DESCRIPTION OF WORK		VALUE	APPS.	PERIOD	STORED	TO DATE	%	TO FINISH	RETAINAGE
	PLUMBING SUBMITTALS	L	20,000.00	20,000.00	0.00	0.00	20,000.00		0.00	1,600.
	HVAC SUBMITTALS	L	20,000.00	20,000.00	0.00	0.00	20,000.00		0.00	0.
	PERMITS / TESTS	L	25,000,00	25,000.00	0.00	0.00			0.00	2,000.
	BONDS INSURANCE / HAZCOM / SAFETY	M	90,000.00	90,000.00	0.00	0.00	90,000.00	100.00%	0.00	0.
	MOBILIZATION	L	36,000.00	36,000,00	0.00	0.00	36,000.00		0.00	2,880.
	DEMOBILIZATION	L	15,000.00	13,000.00	500.00	0.00	13,500.00	90.00%	1,500.00	0,
	PROJECT MANAGER	L	138,900.00	138,360.00	200,00	0.00	138,560.00	99.76%	340.00	11,084.
	PLUMBING SUPERINTENDENT	L	85,000.00	84,600.00	200.00	0.00	84,800.00	99.76%	200.00	0.
	HVAC SUPERINTENDENT	L	130,000.00	129,600.00	200,00	0.00	129,800.00	99.85%	200.00	10,384,
	CAD/COORDINATION DRAWINGS	L	94,696.00	94,696.00	0,00	0.00	94,696.00	100.00%	0.00	0.
	WARRANTY	L	8,759.28	4,000.00	1,000.00	0.00	5,000.00	57.08%	3,759.28	400.
	FIELD OPERATIONS	L	18,486.60	18,486.60	0.00	0.00	18,486.60	35.00%	0.00	0.
	CONTRACT ALLOWANCE	M	75,000.00	12,372,00	12,271,00	0.00	24,643.00	32.86%	50,357.00	1,971
	DAILY CLEAN-UP	L	55,117.77	54,579.67	300.00	0.00	54,879.67	99.57%	238.10	0.
	CLOSE OUT	L	50,000.00	49,500.00	200.00	0.00	49,700.00	99.40%	300.00	3,976
	PROJECT MEETINGS	L	27,500.00	27,325.00	75.00	0.00	27,400.00	99.64%	100.00	0.
	PUNCHLIST	L	50,000.00	46,000.00	2,000,00	0.00	48,000.00	96.00%	2,000.00	
- 1	STARTUP & COMMISSIONING	L	22,565.00	22,200.00	265,00	0.00	22,465.00	99.56%		3,840
	TEMPERARY OFFICE AIR CONDITIONERS	Ē	3,800.00	3,800.00	0.00	0.00	3,800.00	7.50	100.00	0
	TEMPERARY OFFICE AIR CONDITIONERS	M	14,000.00	14,000.00	0.00	0.00		100.00%	0.00	304.
	UNDERGROUND ACID WASTE	Ľ.	10,657.00	10,657.00	0.00	0.00	14,000.00	100.00%	0,00	0
	UNDERGROUND ACID WASTE	M	22,819.00	22,819.00				100.00%	0.00	852
	BASEMENT ACID WASTE	L	2,660.00	2,660,00	0.00	0.00		100.00%	0.00	0
	BASEMENT ACID WASTE	М	13,832.00		0.00	0.00	2,660.00		0.00	212
	LEVEL 1 ACID WASTE	L		13,832.00	0.00	0.00		100.00%	0.00	0
	LEVEL 1 ACID WASTE	M	4,935.00	4,935.00	0.00	0.00	4,935.00		0.00	394
	LEVEL 2 ACID WASTE	L	25,662.00	25,662.00	0.00	0.00	25,662.00		0.00	0
	LEVEL 2 ACID WASTE	_	8,995.00	8,995.00	0.00	0.00		100.00%	0.00	719
	LEVEL 3 ACID WASTE	М	46,774.00	46,774.00	0.00	0.00		100.00%	0.00	0.
	LEVEL 3 ACID WASTE	L	12,635.00	12,635.00	0.00	0.00		100.00%	0.00	1,010
		M	65,702.00	65,702.00	0.00	0.00	65,702.00	100.00%	0.00	0
	LEVEL 4 ACID WASTE	L	8,505,00	8,505.00	0.00	0.00		100.00%	0.00	680
	LEVEL 4 ACID WASTE	M	44,226.00	44,226.00	0.00	0.00	44,226.00	100.00%	0.00	0.
	PENTHOUSE ACID WASTE	L	350.00	350.00	0_00	0.00		100.00%	0.00	28.
	PENTHOUSE ACID WASTE	M	1,820.00	1,820.00	0,00	0.00	1,820.00	100.00%	0.00	0
	UNDERGROUND SANITARY WASTE	L	26,350.00	26,350.00	0.00	0.00	26,350.00	100.00%	0.00	2,108
	UNDERGROUND SANITARY WASTE	M	37,285.00	37,285.00	0.00	0.00	37,285.00	100.00%	0.00	0
	BASEMENT SANITARY WASTE	L	19,728.00	19,728.00	0.00	0.00	19,728.00	100.00%	0.00	1,578
	BASEMENT SANITARY WASTE	M	19,728.00	19,728.00	0.00	0.00	19,728.00	100.00%	0.00	0
	LEVEL 1 SANITARY WASTE	L	25,380.00	25,380.00	0.00	0.00	25,380.00	100.00%	0.00	2,030
	LEVEL 1 SANITARY WASTE	M	25,380.00	25,380.00	0.00	0.00	25,380.00	100.00%	0.00	0
	LEVEL 2 SANITARY WASTE	L	28,296.00	28,296,00	0,00	0.00	28,296.00	100.00%	0.00	2,263
	LEVEL 2 SANITARY WASTE	M	28,296.00	28,296.00	0.00	0.00	28,296.00	100.00%	0.00	0
	LEVEL 3 SANITARY WASTE	L	12,528.00	12,528.00	0.00	0.00	12,528.00	100.00%	0.00	1,002
	LEVEL 3 SANITARY WASTE	M	12,528.00	12,528.00	0.00	0.00	12,528.00	100.00%	0.00	0
	LEVEL 4 SANITARY WASTE	L	11,412.00	11,412.00	0.00	0.00	11,412.00	100.00%	0.00	912
	LEVEL 4 SANITARY WASTE	M	11,412.00	11,412.00	0.00	0.00	11,412.00	100.00%	0.00	0
	PENTHOUSE SANITARY WASTE	L	1,188.00	1,188.00	0.00	0.00	1,188.00		0.00	95
	PENTHOUSE SANITARY WASTE	M	1,188.00	1,188.00	0.00	0.00	1,188.00	100 April 200 Ap	0.00	0
	UNDERGROUND STORM	L	18,215.00	18,215.00	0.00	0.00		100.00%	0.00	1,457
	UNDERGROUND STORM	M	15,500.00	15,500.00	0.00	0.00	15,500.00		0.00	0
	BASEMENT STORM	L	6,144.60	6,144.60	0.00	0.00	6,144.60		0.00	491
	BASEMENT STORM	M	8,256.00	8,256.00	0.00	0.00	8,256.00		0.00	0
	LEVEL 1 STORM	L	14,574.00	14,574.00	0.00	0.00	14,574.00		0.00	1,165
	LEVEL 1 STORM	M	26,372.00	26,372.00	0.00	0.00	26,372.00		0.00	0,100
	LEVEL 2 STORM	L	4,242.00	4,242.00	0.00	0.00	4,242.00		0.00	339
	LEVEL 2 STORM	M	7,680.00	7,680.00	0.00	0.00	7,680.00		0.00	0
	LEVEL 3 STORM	Ë	3,444.00	3,444.00	0.00	0.00	3,444.00		0.00	275
	LEVEL 3 STORM	М	6,232,00	6,232.00	0.00	0.00	6,232.00		0.00	2/3
	LEVEL 4 STORM	L	14,448.00	14,448.00	0.00	0.00	14,448.00			
	LEVEL 4 STORM	M	26,980.00	26,980.00		5.4			0.00	1,155
	PENTHOUSE STORM	L	2,478.00	2,478.00	0.00	0.00	26,980.00		0.00	400
	PENTHOUSE STORM	М			0.00	0.00	2,478.00		0.00	198
	LEVEL 1 COMPRESSED AIR		4,484.00	4,484.00	0.00	0.00	4,484.00		0.00	0
		L	4,108.00 3,081.00	3,081.00	tor Pay Application 0.00	0.00	4,108.00 3,081.00		0.00	328. 0.
	LEVEL 1 COMPRESSED AIR	M								

LEVEL 2 COMPRESSED AIR	M	780.00	780.00	0.00	0.00	780.00	100.00%	0.00	0.00
LEVEL 3 COMPRESSED AIR	L	8,684.00	8,684.00	0,00	0.00	8,684.00	100.00%	0.00	694.72
LEVEL 3 COMPRESSED AIR	M	6,513,00	6,513.00	0.00	0.00	6,513.00	100.00%	0.00	0.00
LEVEL 4 COMPRESSED AIR	L	1,794.00	1,794.00	0.00	0.00	1,794.00	100.00%	0.00	143.52
LEVEL 4 COMPRESSED AIR	M	1,345,50	1,345.50	0.00	0.00	1,345.50	100.00%	0.00	0.00
PENTHOUSE COMPRESSED AIR	L	569.40	569.40	0.00	0.00	569.40	100.00%	0.00	45.55
PENTHOUSE COMPRESSED AIR	M	427,00	427.00	0.00	0.00	427.00	100.00%	0.00	0.00
PENTHOUSE CHILLED WATER PENTHOUSE CHILLED WATER	<u> </u>	40,037.51	40,037.51	0.00	0.00	40,037.51	100.00%	(0.00)	
BASEMENT CONDENSATE DRAINS	M	46,221,86	46,221.86	0.00	0.00	46,221.86	100.00%	0.00	0.00
BASEMENT CONDENSATE DRAINS	M	1,477.00	1,477.00	0,00	0.00	1,477.00	100.00%	0.00	118.16
LEVEL 1 CONDENSATE DRAINS	I IVI	884.00 619.00	884.00	0.00	0.00	884.00	100.00%	0.00	0.00
LEVEL 1 CONDENSATE DRAINS	М		619.00	0.00	0.00	619.00	100.00%	0.00	49.52
LEVEL 2 CONDENSATE DRAINS	IVI	371.00 455.00	371.00	0.00	0.00	371.00	100.00%	0.00	0.00
LEVEL 2 CONDENSATE DRAINS	M	275.00	455.00 275.00	0.00	0.00	455.00	100.00%	0.00	36.40
PENTHOUSE CONDENSATE DRAINS	L	1,236.00	1,236.00	0.00	0.00	275.00	100.00%	0.00	0.00
PENTHOUSE CONDENSATE DRAINS	l <u> </u>	741.00	741.00	0.00	0.00	1,236.00	100.00%	0.00	98.88
PENTHOUSE CONDENSER WATER	Ë	25,763.37	25,763.37	0.00	0.00	741.00 25,763.37	100.00%	0.00	0.00
PENTHOUSE CONDENSER WATER	М	32,895.07	32,895.07	0.00	0.00	32,895.07	100.00%	(0.00)	
BASEMENT HEATING HOT WATER	L	22,134.00	22,134.00	0.00	0.00	22,134.00	100.00%	0.00	0.00 1,770.72
BASEMENT HEATING HOT WATER	M	22,623.00	22,623.00	0.00	0.00	22,623.00	100.00%	0.00	0.00
LEVEL 1 HEATING HOT WATER	L	30,834.00	30,834.00	0.00	0.00	30,834.00	100.00%	0.00	2,466,72
LEVEL 1 HEATING HOT WATER	M	31,516.00	31,516.00	0.00	0.00	31,516.00	100.00%	0.00	0.00
LEVEL 2 HEATING HOT WATER	L	18,665.00	18,665.00	0.00	0.00	18,665.00	100.00%	0.00	1,493.20
LEVEL 2 HEATING HOT WATER	M	19,078,00	19,078.00	0.00	0.00	19,078.00	100.00%	0.00	0.00
LEVEL 3 HEATING HOT WATER	l F	14,668.00	14,668.00	0.00	0.00	14,668.00	100.00%	0.00	1,173.44
LEVEL 3 HEATING HOT WATER LEVEL 4 HEATING HOT WATER	M	14,992,50	14,992.50	0.00	0.00	14,992.50	100.00%	0.00	0.00
LEVEL 4 HEATING HOT WATER	L M	15,417.00	15,417.00	0.00	0.00	15,417.00	100.00%	0.00	1,233.36
PENTHOUSE HEATING HOT WATER	I IVI	15,758.00 21,010.00	15,758.00	0.00	0.00	15,758.00	100.00%	0.00	0.00
PENTHOUSE HEATING HOT WATER	M	21,475.00	21,010.00 21,475.00	0.00	0.00	21,010.00	100.00%	0.00	1,680.80
BASEMENT DOMESTIC WATER	<u>"</u>	32,080.00	32,080.00	0.00	0.00	21,475.00 32,080.00	100.00%	0.00	0.00
BASEMENT DOMESTIC WATER	M	56,115,00	56,115.00	0.00	0.00	56,115.00	100.00%	0.00	2,566.40 0.00
LEVEL 1 DOMESTIC WATER	L	31,421.00	31,421.00	0.00	0.00	31,421.00	100.00%	0.00	2,513.68
LEVEL 1 DOMESTIC WATER	M	44,500.00	44,500.00	0.00	0.00	44,500.00	100.00%	0.00	0.00
LEVEL 2 DOMESTIC WATER	L	14,208.00	14,208.00	0.00	0.00	14,208.00	100.00%	0.00	1,136.64
LEVEL 2 DOMESTIC WATER	M	22,225.00	22,225.00	0.00	0.00		100.00%	0.00	0.00
LEVEL 3 DOMESTIC WATER	L	35,964.00	35,964.00	0.00	0.00	35,964.00	100.00%	0.00	2,877.12
LEVEL 3 DOMESTIC WATER	M	43,740.00	43,740.00	0.00	0.00	43,740.00	100.00%	0.00	0.00
LEVEL 4 DOMESTIC WATER	L.	5,328.00	5,328.00	0.00	0.00	5,328.00	100.00%	0.00	426.24
LEVEL 4 DOMESTIC WATER PENTHOUSE DOMESTIC WATER	M	6,480.00	6,480.00	0.00	0.00		100.00%	0.00	0.00
PENTHOUSE DOMESTIC WATER	L M	6,290.00 7,605.00	6,290.00	0.00	0.00	6,290.00		0.00	503.20
BASEMENT NATURAL GAS	L	13,830.00	7,605.00 13,830.00	0.00	0.00	7,605.00	100.00%	0.00	0.00
BASEMENT NATURAL GAS	I м	12,245.00	12,245.00	0.00	0.00	13,830.00 12,245.00	100.00%	0.00	1,106.40
LEVEL 1 NATURAL GAS	l ".	8,080.00	8,080.00	0.00	0.00	8,080.00	100.00%	0.00	0.00 646.40
LEVEL 1 NATURAL GAS	M	9,995.00	9,995.00	0.00	0.00		100.00%	0.00	0,00
LEVEL 2 NATURAL GAS	L	5,920.00	5,920.00	0.00	0.00		100.00%	0.00	473.60
LEVEL 2 NATURAL GAS	M	6,797.00	6,797.00	0.00	0.00	6,797,00	100.00%	0.00	0.00
LEVEL 3 NATURAL GAS	L	5,920.00	5,920.00	0.00	0.00	5,920.00	100.00%	0.00	473.60
LEVEL 3 NATURAL GAS	M	6,797.00	6,797.00	0.00	000	6,797.00	100.00%	000	0.00
LEVEL 4 NATURAL GAS	L L	4,240.00	4,240.00	0.00	0.00	4,240.00	100.00%	0.00	339.20
LEVEL 4 NATURAL GAS	M	3,336.00	3,336.00	0.00	0.00	3,336.00		0.00	0.00
PENTHOUSE NATURAL GAS PENTHOUSE NATURAL GAS	L	9,520.00 8,495.00	9,520.00	0.00	0.00	9,520.00		0.00	761.60
REFRIGERATION PIPING	M L	4,768.00	8,495.00	0.00	0.00	8,495.00		0.00	0.00
REFRIGERATION PIPING	M	3,268.00	4,768.00 3,268.00	0.00	0.00	4,768.00 3,268.00		0.00	381.44
BASEMENT DUCTWORK	l "L	54.563.00	54,563.00	0.00	0.00	54,563.00		0.00 0.00	0.00 4,365.04
BASEMENT DUCTWORK	M	98,000.00	98,000.00	0.00	0.00	98,000.00		0.00	0.00
LEVEL 1 DUCTWORK	L L	43,979.30	43,979.30	0.00	0.00	43,979.30		0.00	3,518.34
LEVEL 1 DUCTWORK	M	84,000.00	84,000.00	0.00	0.00	84,000.00		0.00	0.00
LEVEL 2 DUCTWORK	L	36,176.00	36,176.00	0.00	0.00	36,176.00	TO THE RESERVE OF THE PARTY OF	0.00	2,894.08
LEVEL 2 DUCTWORK	М	73,000.00	73,000.00	0.00	0.00	73,000.00		0.00	0.00
LEVEL 3 DUCTWORK	L	33,364.00	33,364.00	0.00	0.00	33,364.00		0.00	2,669.12
LEVEL 3 DUCTWORK	M	80,200.00	80,200,00	0.00	0.00	80,200.00		0.00	0.00
LEVEL 4 DUCTWORK	L.	22,306.00	22,306.00	0.00	0.00	22,306.00		0.00	1,784.48
LEVEL 4 DUCTWORK PENTHOUSE DUCTWORK	M	45,220.00	45,220.00	0.00	0.00	45,220.00		0.00	0.00
PENTHOUSE DUCTWORK	L M	35,207.00 55,591.00	35,20 £ 00	tor Pay Application 0.00	0.00	35,207.00		0.00	2,816.56
AIR SIDE EQUIPMENT	L	49,894-06	49,894.06	0.00	0.00	55,591.00 49,894.06	1 2 2 2	0.00 (0.00)	0.00 3,991.52
	n = 1	.0,007.00	10,004.00	0.00	0.00	40,004.00	.00.0070	(0.00)	0,551.02

CAMPERS & ACCESSORIES M \$65,590.95 56,639.95 0.00 0.00 56,590.85 100.00% 0.00 0.	AIR SIDE EQUIPMENT	7	v							
DAMPERS A LOCESSORIES L SABTOR A SAF7.06 DAMPERS A COCRESSORIES L SABTOR M SAF7.06 SELEPHS, CORING & CAULKING L 13,901.53 SELEPHS, CORING & CAULKING L 13,901.53 SELEPHS, CORING & CAULKING M J15,000.01 SEQUIPMENT PADS L 9,500.00 SPIPE DENTIFICATION M J17,000 PIPE DENTIFICATION M J17,000 PULMIRING EQUIPMENT M M SAF7.06 BERDENTIFICATION M J17,000 PULMIRING EQUIPMENT M SECONATION L 21,104.09 EXCAVATION L 21,104.09 EXCAVATION M J21,114.09 EXCAVATION M J21,114.09 EXCAVATION M J21,114.09 EXCAVATION M J21,114.09 EXCAVATION M M J21,114.09 EXCAVATION M M J21,118.00 EXCAVATION M M J21,118.00 EXCAVATION M M J21,118.00 EXCAVATION M M J21,118.00 EXCAVATION M M M M M M M M M M M M M M M M M M		M	56,530.95	56,530,95		0.00	56,530.95	100.00%	0.00	0.00
SLEEVES, CORNING CAULKING M 5,650,56 0,00 0,00 13,991,53 10,000% 0,00 0,00 13,991,53 10,000% 0,00 0,00 13,991,53 10,000% 0,00 0,00 0,00 13,991,53 0,000% 0,00 0,0		L			0.00	0.00	3,857.06	100.00%		
SLEEVES, CORING & CAULKING L 13,901.53 13,900.00 13,900.		l M			0.00	0.00				
EQUIPMENT PAIS L 9,500,00 9,000 0,		L			0_00	0.00	13,901,53		1 100 100	
EQUIPMENT PADS M 21,080,000 21,080,000 21,080,000 PIPE IDENTIFICATION L 1,761,000 1,7	SLEEVES, CORING & CAULKING			31,500,00	0.00	0.00	31.500.00	100.00%		
BEUDMARIEN PAUS M		_		9,500.00	0.00	0.00				
PIPE IDENTIFICATION L 1,761.00 1,761.00 0.00 0.00 1,761.00 100.00% 0.00 1		M	21,609.00	21,609.00	0.00	0.00			*	
PME IDENTIFICATION		L	1,761.00	1,761.00	0.00	0.00				
PLUMBING EQUIPMENT L 26,890.00 26,890.00 0.00 0.00 26,890.01 100.00% 0.00 2.151.00%		M	1,726.00	1,726.00	0.00					
PLUMBING EQUIPMENT		L	26,890.00	26,890.00						
EXCAVATION L 21,104.09 21,104.09 0.00 0.00 21,104.09 100.00% 0.00 1.688.33 PLUMBING FIXTURES L 41,102.00 40,700.00 202,00 0.00 40,902.00 99,51% 200.00 0.00 0.00 24,112.80 100.00% 0.00 0.00 0.00 0.00 0.00 0.00		M	85,000.00							
EXCAVATION M 24,112.80 24,112.80 0.00 0.00 24,112.80 100.00% 0.00		L	21,104.09	21,104,09						
PLUMBING FIXTURES		M	24,112.80							
PLUMBING FIXTURES M 100,720.00 0.00 0.00 100,720.00 100,00% 0.00 0.0		L	41,102.00							
DRAINAGE FIXTURES L 56,538.00 56,538.00 0.00 0.00 56,538.00 100.00% 0.00		M	100,720.00	100,720,00						
DRAINAGE FIXTURES M		L	56,538.00	56,538.00						
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CHANGE ORDERS NO. 1 NO. 1 M 15,457.00 NO. 2 NO. 2 M 12,011.67 NO. 2 NO. 2 NO. 2 NO. 3 NO. 2 NO. 2 NO. 3 NO. 4 NO. 2 NO. 2 NO. 2 NO. 2 NO. 3 NO. 2 NO. 3 NO. 4 NO. 5 NO. 6 NO. 7 NO. 7 NO. 7 NO. 7 NO. 8 NO. 9,671.70 NO. 9,671.70 NO. 0 N										100
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NO. 2 M 12,011.67 12,011.67 0.00 0.00 12,011.67 100.00% 0.00 0.00										
TOTAL										
TOTAL 5,604,361.67 5,495,820.30 21,597.00 0.00 5,517,417.30 98.45% 86,944.37 170,328.77		(V)	12,011.07	12,011.67	0.00	0.00	12,011.67	100.00%	0.00	0.00
5.50 5,517,417.50 50,544.37 170,226.77	TOTAL		5,604,361.67	5,495,820.30	21,597.00	0.00	5 517 417 30	98 45%	86 944 27	170 229 77
	102000000		1242-2142-2142-11	3,100,020,00	2.1007.00	5.00	5,517,417.30	30.4376	00,544.37	110,326.11

OK, WTH.

TP MECHANICAL CONTRACTORS 2105 Schappelle Ln Cincinnati OH 45240

GC Job#/Contract State Job #

Week Ending

11-28-2009

GARY Caucasian	MALE	Total Hours 32	Project Gross \$736.00	Total Hours All Jobs 40.00	Total Gross All Jobs 920.00	Taxes Withheld 221.96	Vol Deducts 197.46	Net Paid 500.58
FRANK Caucasian	MALE	Total Hours 32	Project Gross \$768.00	Total Hours All Jobs 40.00	Total Gross All Jobs 960.00	Taxes Withheld 207.57	Vol Deducts 21.97	Net Paid 730.46
BRANDON Caucasian	MALE	Total Hours 32	Project Gross \$496.00	Total Hours All Jobs 40.00	Total Gross All Jobs 620.00	Taxes Withheld 129.12	Vol Deducts 54.05	Net Paid 436.83
SHAWN	MALE	Total Hours 32	Project Gross \$1,142.08	Total Hours All Jobs 40.00	Total Gross All Jobs 1,427.60	Taxes Withheld 452.01	Vol Deducts 20.60	Net Paid 954.99
RONALD	MALE	Total Hours 24	Project Gross \$779.40	Total Hours All Jobs 40.00	Total Gross All Jobs 1,298.40	Taxes Withheld 284.13	Vol Deducts 90.53	Net Paid 923.74
Totals	S	Total Hours 152.00	Project Gross \$3,921.48	Total Hours All Jobs 200.00	Total Gross All Jobs 5,226.00	Taxes Withheld 1,294.79	Vol Deduct 384.61	Net Paid 3,546.60

Job:

A1.697 SCHOOL OF CREATIVE & PERFORMING ARTS 1112 RACE STREET CINCINNATI, OH 45202

TP MECHANICAL CONTRACTORS 2105 Schappelle Ln Cincinnati OH 45240

Job:

A1.697 SCHOOL OF CREATIVE & PERFORMING ARTS
1112 RACE STREET
CINCINNATI, OH 45202

GC Job#/Contract State Job #

Week Ending

11-21-2009

Week Endin	g	11-21-2009							
WILFREDO Hispanic	MALE		Total Hours	Project Gross	Total Hours All Jobs	Total Gross All Jobs	Taxes Withheld	Vol Deducts	Net Paid 0.00
GARY Caucasian	MALE		Total Hours 40	Project Gross \$920.00	Total Hours All Jobs 40.00	Total Gross All Jobs 920.00	Taxes Withheld 225.79	Vol Deducts 197.46	Net Paid 496.75
FRANK Caucasian	MALE		Total Hours 40	Project Gross \$960.00	Total Hours All Jobs 40.00	Total Gross All Jobs 960.00	Taxes Withheld 211.60	Vol Deducts 21.97	Net Paid 726.43
BRANDON Caucasian	MALE		Total Hours 40	Project Gross \$590.00	Total Hours All Jobs 40.00	Total Gross All Jobs 590.00	Taxes Withheld 122.97	Vol Deducts 54.05	Net Paid 412.98
SHAWN	MALE		Total Hours 32	Project Gross \$1,142.08	Total Hours All Jobs 40.00	Total Gross All Jobs 1,427.60	Taxes Withheld 452.01	Vol Deducts 20.60	Net Paid 954.99
Totals	3		Total Hours 152.00	Project Gross \$3,612.08	Total Hours All Jobs 160.00	Total Gross All Jobs 3,897.60	Taxes Withheld 1,012.37	Vol Deduct 294.08	Net Paid 2,591.15

TEN MECHANICAL CONTRACTORS 2105 Schappelle Ln Cincinnati OH 45240

GC Job#/Contract State Job #

Week Ending

11-14-2009

WILFREDO

WILFREDO	MALE	Total Hours 16	Project Gross \$331.20	Total Hours All Jobs 40.00	Total Gross All Jobs 828.00	Taxes Withheld 110.14	Vol Deducts 78.85	Net Paid 639.01
GARY Caucasian	MALE	Total Hours 32	Project Gross \$736.00	Total Hours All Jobs 32.00	Total Gross All Jobs 736.00	Taxes Withheld 163.70	Vol Deducts 179.06	Net Paid 393.24
FRANK Caucasian	MALE	Total Hours 40	Project Gross \$960.00	Total Hours All Jobs 44.50	Total Gross All Jobs 1,122.00	Taxes Withheld 255.64	Vol Deducts 25.21	Net Paid 841.15
BRANDON Caucasian	MALE	Total Hours 32	Project Gross \$472.00	Total Hours All Jobs 45.50	Total Gross All Jobs 711.69	Taxes Withheld 156.39	Vol Deducts 54.05	Net Paid 501.25
SHAWN	MALE	Total Hours 26	Project Gross \$927.94	Totál Hours All Jobs 40.00	Total Gross All Jobs 1,427.60	Taxes Withheld 450.73	Vol Deducts 20.60	Net Paid 956.27
Totals	5	Total Hours 146.00	Project Gross \$3,427.14	Total Hours All Jobs 202.00	Total Gross All Jobs 4,825.29	Taxes Withheld 1,136.60	Vol Deduct 357.77	Net Paid 3,330.92

Job:

A1.697 SCHOOL OF CREATIVE & PERFORMING ARTS
1112 RACE STREET
CINCINNATI, OH 45202

Cincinnati Public Schools

Received 12/10/09

2315 Iowa Avenue Cincinnati, Ohio 45206

Cont ractor's Name: TP Mechanical Contractors Address: 2105 Schappelle Lane, Cinn.OH 45240

Contractor Pay Application Summary

Project Name: Cincinnati School for the Creative and Performing Arts Bid Package No.: #3 and #5

1 2 3	Original Contract Amount Net Changes to Date Current Contract Amount	\$ \$ \$	\$5,511,777.00 92584.67 5604361.67	
4	Labo r Completed to Date	\$		
5	Mate rial Completed to Date	\$		
6	Total Work Completed to Date	\$	5517417.30	
7	Store Material to Date	\$		
8	Less Retained to Date	\$	170328.77	
9	Total Amount Due	\$	5347088.53	
10	Less Previous Payments	\$	5327055.77	
11	Less Amount Retained to Cover Lien	\$		
12	Less Amount Retained for Liquidated Damages	\$		
13	Less Other Amounts Withheld	\$		
14	Current Due	\$	20032.76	OK, WTH.
15	Balarnce to Complete	\$	257273.14	, , ,

OSF € approval required for the following contract	adjustments:
Assessment of liquidated damages Other amounts withheld	
Ohio School Facilities Commission	Date
Comments:	

00400-J

Contractor Pay Application

Part Load Rating



Issue Date: 8/07 Project: Project Engineer: Sales Eng

Customer: customer

Program: LTC

v1_75.idd 09/11/07 Rev:

Date: Page: 1 of 1

MODEL	
	YKARASQ3-CKC
REFRIGERANT	. 134A
RATED CAPACITY (TR)	300
INPUT POWER (KW)	214
VOLTAGE / HZ	460 / 60
ORIFICE (VARY)	VALVE:2
ISOLATION VALVE	YES
FLA	308
MIN CIR. AMPS.	385
FULL LOAD (KW/TR)	0.713

(MOTOR SELECTED B	YUSER)
GEAR CODE	XC(SPEC
SPECIFIED CAPACITY (TR)	-300
MAX MOTOR LOAD (KW)	213
OIL COOLER	REFRIG CLR
OPTISOUND CONTROL	NO
LRA	1950
MAX.C.R.	600
NPLY	0.478

STARTER TYPE (10) VARIABLE SPEED DRIVE

*	Eveporator	Condenser
FLUID	WATER*	WATER*
% BY WEIGHT	0.0*	0.0*
TUBE MTI NO.	271*	250*
PASSES	22	The state of the s
FOUL FACTOR	0.00010*	0.00025
FLUID ENT TEMP (°F)	57:65	85.00*
LUID LEV TEMP (°F)	42,00*	The second secon
LUID FLOW (gpm)	460.0*	99.65
LUID PROROP (ft)	14.8	585.0*
	1 14,0	10.9

(*) Designates Specified Input

PART LOAD PERFORMANCE:

Pet Load	CAP (TR)	Pct Power	lnip Pwr (KW)	EEFT (°F)	ELFT (°F)	CEFT (°F)	CLFT (°F)	Sys Perf
100.0	300.0	100.0	214	57.65	42.00	85.00	99.65	0.713
0.00	240.0	69,2	148	54.52	42.00	80.00	91.44	0.617
60.0	180.0	47.2	101	51.39	42,00	75.00	.83.45	0.501
49.0	120,0	29.4	63	48,26	42.00	70.00	76.65	0.525
20.0	60.D	15.9	*34	46.13.	42.00	65,00	67.76	0.567

Rating certified in accordance with ARI STO, 550/590, Water-chilling packages using the vapor compression cycle certification program. Compilant with ASHRAE 90.1

Materials and construction per mechanical specifications - Form 160.73-EG1.



SOLUTION AIR HANDLING UNIT PERFORMANCE SPECIFICATION

A JOHNSON CONTROLS COMPANY

Unit Tag	Qty	Model	Air Flow (CFM)
ERU-1	1	Solution Indoor Air Handler 72 x 126	25000

Coils & Spacers Listed Starting In Direction Of Air Flow

HC Coil - 01				Air Side		Fluid Side	
Coil General/Physical Details				Performance	æ	Performance	
Location:	0	Rows:	2	Air Flow(CFM):	25000	EWT (°F):	180.0
Tag:	AirCoil	Fins Per Inch:	8	Altitude (ft.):	1004	LWT (°F):	141.3
Application:	Heating	Tubes Per Circuit:	2	EAT-DB (°F):	39.1	GPM:	70.0
Coil Type:	Water	Finned Height (in.)	60.00	LAT-DB (°F):	86.7	WPD (ft):	2.5
Face Type:	Full	Finned Length (in.)): 114	FV (ft/min): •	526	FPS:	2.6
Tube Diameter:	1/2" BDW	Coil Face Area (ft²): 47.5	TMBH:	1316.5	Fluid Type:	Water
Tube Material:	Copper	Coil Conn. Loc.:	Right(Right)	APD (in, w.g.):	0.13	Fluid Weight(lb):	105.0
Tube Wall Thickn	ess: .020"	Supp Conn Size:	3"			Fluid	1.7
Fin Type:	Corrugated	Rtn Conn Size:	3"			Volume(ft3):	
Fin Thickness:	.006"	# of Supply	1				
Fin Material:	Aluminum	Conn. (per coil):					
Casing Material:	Galvanized				1.7		
Connection Materi	al: Steel*						
Connection Type:	MPT						
Coating:	None			×			

^{*}York suggests using red brass or copper connectors when the coil is to be attached to a copper or brass piping system. All water, R-22 DX and steam coils are certified in accordance to ARI Standard 410.

CC Coil - 01							8
			AV.	Air Side		Fluid Side	
(Coil General	Physical Details		Performant	<u> </u>	Performance	
Location:	0	Rows:	6	Air Flow(CFM):	25000	EWT (°F):	42.0
Tag:	AirCoil	Fins Per Inch:	12	Altitude (II.):	1004	LWT (°F):	58:0
Application:	Cooling	Tubes Per Circuit:	4	EAT-DB (°F):	85.0	GPM:	152.1
Coil Type:	Water	Finned Height (in.):	60.00	EAT-WB (°F):	67.0	WPD (ft):	11.7
Face Type:	Full	Finned Length (in.)	: 114	LAT-DB (°F):	50.4	PS:	3.8
Tube Diameter:		Coil Face Area (ft²)		LAT-WB (°F):	49.7	Huid Type:	Water
Tube Material:		Coil Conn. Loc.:	Right(Right)	TV (Q/min):	526	_fluid Weight(lb):	255.0
Tube Wall Thicknes		Supp Conn Size:	3"	SMBH:	898.0	Fluid Volume(ft³):	4.1
Fin Type:		Rtn Conn Size:	3"	TMBH:	1221.0		
Fin Thickness:		# of Supply Conn.	1	APD (in. w.g.):	0.68		
Fin Material:	Aluminum	(per coil):					
Connection Materia		177					
Connection Type:	MPT						
Casing Material:	Galvanized						

^{*}York suggests using red brass or copper connectors when the coil is to be attached to a copper or brass piping system. All water, R-22 DX and steam coils are certified in accordance to ARI Standard 410.

Project Name: CPS - SCPA (AHU'S) 10-5	Sold To: TP MECHANICAL CONTRACTORS		
Location: CINCINNATI, OH	Customer Purchase Order No.: A1697-67208		
Engineer:	York Contract No.: 08132519		
Contractor: TURNER CONSTRUCTION CO./	Date:	Revision Date:	

Printed: 11/5/2007 at 17:59

None

Unit Folder: ERU-1

Coating:

ERU-1Performance

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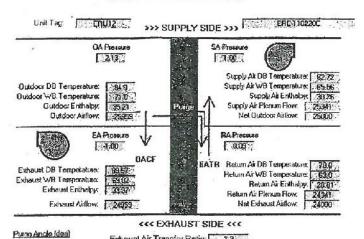
Page 8 of 12

Airxchange AIRX ERC DESIGN POINT ANALYSIS

DESIGN CONDITIONS	Dry Bulb, F	Wet Bulb, F	Enthalpy, Btu/lb
SUMMER, Outdoor	94.00	71.00	35.21
SUMMER, Indoor	78.00	63.00 -	28,81
WINTER, Outdoor	6.00	4.00	2.03
WINTER, Indoor	72.00	54.00	22.77

Project Unit: ERU1&2	Model Number:	ERC-110220C
SUPPLY AIR FLOW RATE, cfm	25000	25000
EXHAUST AIR FLOW RATE, cfin	24000	24000
Latent Effectiveness	69.79%	70,50%
Sensible Effectiveness	72.34%	73.02%
Measured Effectiveness (S/W)	71.8%	72.7%
SUPPLY AIR CONDITIONS	Summer	Winter
Dry Bulb Temperature, F	82.72	50.63
Wet Bulb Temperature, F	65.56	41.15
Enthalpy, Btu/lb	30.76	15.91
Relative Humidity, %	40.5	43.5
Section resolvation several auditection for the constraint and page 2000.		
DESIGN LOADS, Btu/h	Summer	Winter
Outside Air, Sensible	406,708	1,791,331
Outside Air, Latent	270,411	554,464
Outside Air, Total	677,119	2,345,795
RECOVERED LOADS, Btu/h	Summer	Winter
Sensible Recovered	285,076	1,127,074
Latent Recovered	183,411	432,863
Total Recovered	468,487	1,559,938
Net OA Load	208,632	785,858
INSTALLED HVAC REDUCTION		
COOLING, Tons	39.04	
HEATING, Btu/h	SA150.00	1,559,938

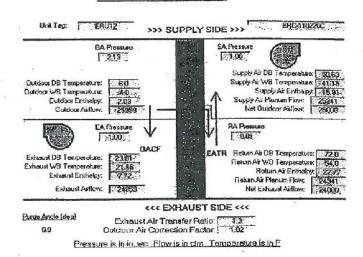
Summer Process Diagram



Exhaust Air Transfor Ratio: 1.33 Outdoor Air Correction Factor: 1.62 Pressure is in in, wc. Flow is in cfm. Temperature is in E

0.0

Winter Process Diagram





SOLUTION AIR HANDLING UNIT PERFORMANCE SPECIFICATION

A JOHNSON	CONTRO	ISCO	MOM	NY
MANITORIT	CONTRACT	LOV	ノレフレス・アペ	101

Unit Tag	Qty	Model	Air Flow (CFM)
ERU-2	1	Solution Indoor Air Handler 72 x 126	25000

Coils & Spacers Listed Starting In Direction Of Air Flow

HC Coil - 01							
				Air Side	:	Fluid Side	;
	Coil General	Physical Details		Performan	ce	Performano	æ
Location:	0	Rows:	2	Air Flow(CFM):	25000	EWT (°F):	180.0
Tag:	AirCoil	Fins Per Inch:	8	Altitude (ft.):	1004	LWT (°F):	141.3
Application:	Heating	Tubes Per Circuit:	2	EAT-DB (°F):	39.1	GPM:	70.0
Coil Type:	Water	Finned Height (in.)	60.00	LAT-DB (°F):	86.7	WPD (ft):	2.5
Face Type:	Full	Finned Length (in.): 114	FV (ft/min):	526	FPS:	2.6
Tube Diameter:	1/2" BDW	Coil Face Area (ft ²): 47.5	TMBH:	1316.5	Fluid Type:	Water
Tube Material:	Copper	Coil Conn. Loc.:	Right(Right)	APD (in. w.g.):	0.13	Fluid Weight(lb):	105.0
Tube Wall Thickn	ess: ,020"	Supp Conn Size:	3"			Fluid	1.7
Fin Type:	Corrugated	Rtn Conn Size:	3"			Volume(ft³):	
Fin Thickness:	.006"	# of Supply	1				
Fin Material:	Aluminum	Com. (per coil):					
Casing Material:	Galvanized	=					
Connection Materi	al: Steel*						
Connection Type:	MPT						
Coating:	None						

*York suggests using red brass or copper connectors when the coil is to be attached to a copper or brass piping system. All water, R-22 DX and steam coils are certified in accordance to ARI Standard 410.

CC Coil - 01							
				Air Side		Fluid Sid	e
(Coil General	Physical Details		Performanc	æ	Performan	ice
Location:	0	Rows:	6	Air Flow(CFM):	25000	EWT (°F):	42.0
Tag:	AirCoil	Fins Per Inch:	12	Altitude (ft.):	1004	LWT (°F):	58,0
Application:	Cooling	Tubes Per Circuit:	4	EAT-DB (°F):	85.0	GPM:	152.1
Coil Type:	Water	Finned Height (in.):	60.00	EAT-WB (°F):	67.0	WPD (ft):	11.7
Face Type:	Full	Finned Length (in.)	: 114	LAT-DB (°F):	50.4	FPS:	3.8
Tube Diameter:	1/2" BDW	Coil Face Area (ft²)	: 47.5	LAT-WB (°F):	49.7	Fluid Type:	Water
Tube Material:	Copper	Coil Conn. Loc.:	Right(Right)	FV (ft/min):	526	Fluid Weight(lb):	255.0
Tube Wall Thickness	ss: .020"	Supp Conn Size:	3"	SMBH:	898.0	Fluid Volume(ft³):	4.1
Fin Type:	Corrugated	Rtn Conn Size:	3"	TMBH:	1221.0		
Fin Thickness:	.010"	# of Supply Conn.	1	APD (in. w.g.):	0.68		0
Fin Material:	Aluminum	(per coil):					
Connection Materia	1: Steel*						
Connection Type:	MPT						
Casing Material:	Galvanized						
Coating:	None						

*York suggests using red brass or copper connectors when the coil is to be attached to a copper or brass piping system. All water, R-22 DX and steam coils are certified in accordance to ARI Standard 410.

Project Name: CPS - SCPA (AHU'S) 10-5	Sold To: TP MECHANICAL CONTRACTORS		
Location: CINCINNATI, OH	Customer Purchase Order No.: A1697-67208		
Engineer:	York Contract No.: 08132519		
Contractor: TURNER CONSTRUCTION CO./	Date:	Revision Date:	

Printed: 11/5/2007 at 18:09

Unit Folder: ERU-2

ERU-2Performance

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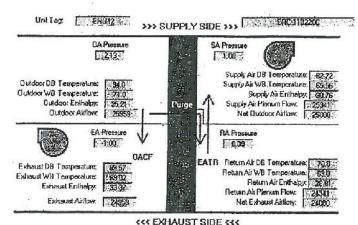
Page 8 of 12

Airxchange AIRX ERC DESIGN POINT ANALYSIS

DESIGN CONDITIONS	Dry Bulb, F	Wet Bulb, F	Enthalpy, Btu/lb
SUMMER, Outdoor	94.00	71.00	35.21
SUMMER, Indoor	78.00	63.00	28.81
WINTER, Outdoor	6.00	4.00	2.03
WINTER, Indoor	72.00	54.00	22.77

WEVELL, moor	72.00	4.00 22.77
Project Unit: ERU1&2 SUPPLY AIR FLOW RATE, cfm EXHAUST AIR FLOW RATE, cfm Latent Effectiveness Sensible Effectiveness Measured Effectiveness (S/W)	Model Number: 25000 24000 69.79% 72.34% 71.8%	ERC-110220C 25000 24000 70.50% 73.02% 72.7%
SUPPLY AIR CONDITIONS	Summer	Winter
Dry Bulb Temperature, F	82.72	50.63
Wet Bulb Temperature, F	65.56	41.15
Enthalpy, Btu/lb	30.76	15.91
Relative Humidity, %	40.5	43.5
DESIGN LOADS, Btu/h	Summer	Winter
Outside Air, Sensible	406,708	1,791,331
Outside Air, Latent	270,411	554,464
Outside Air, Total	677,119	2,345,795
RECOVERED LOADS, Btu/h	Summer	Winter
Sensible Recovered	285,076	1,127,074
Latent Recovered	183,411	432,863
Total Recovered	468,487	1,559,938
Net OA Load	208,632	785,858
INSTALLED HVAC REDUCTION		5
COOLING, Tons	39.04	
HEATING, Btu/h		1,559,938

Summer Process Diagram

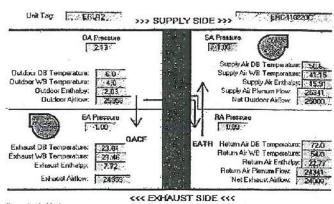


Puros Ande (dea) 0:0

Exhaust Air Transfer Retio: , 13 ...
Outdoor Air Correction Factor: , 130...

Pressure is in in. wo Flow is in cim Temperature is in F

Winter Process Diagram



Paras Anale (dea) 0.0

Exhauet Air Transfer Ratio: 13.43.
Outdoor Air Correction Factor. 11.02.

Pressure is in in. wc. Flow is in cfm. Temperature is in F.

HEAT RECOVERY WHEEL SAVINGS SUMMARY

	AHU-1	AHU-2	TOTAL
kWh:	17,426.4	17,426.4	34,852.7
Dollars:	\$ 1,394.11	\$ 1,394.11	\$ 2,788.22
75%	\$ 1,045.58	\$ 1,045.58	\$ 2,091.16

USA_OH_Cincinnati.Muni.AP-Lunken.Field.724297_TMY3.bin HEAT RECOVERY WHEEL SAVINGS AHU-1

INPUTS

Minimum Fraction Outdoor Air:	96%
Heat Recover Effectiveness:	71.8%
Set Point Temperature:	78 F
Set Point Enthalpy:	28.81 Btu/lba
Supply Air Temperature:	50.4 F
Supply Air Enthalpy:	20.10 Btu/lba
Supply Air Volume:	25000 cfm
Supply Air Density:	0.075 lb/ft^3

Rate:	\$0.08
Chiller IPLV	25.105
SAVING	S
Cooling Why	47 426 26
Cooling kWh:	17,426.36
Dollars:	\$1,394.11
J	\$1,394.11 \$1,045.58

437.49

StrTemp	EndTemp	Toa(F)	hoa(Btu/lba)	hrs	foa	Tma(F)	hma(Btu/lba)	Q (mmBTU)
105	======== 109	======== 107.0	0	======:= 0	96%	105.8	1.15	0.00
100	104	102.0	0	0	96%	101.0	1.15	0.00
95	99	96.1	42.6	12	96%	95.4	42.05	12.83
90	94	92.2	39.6	41	96%	91.6	39.17	34.30
85	89	87.6	37.7	142	96%	87.2	37.34	97.89
80	84	82.4	35.0	250	96%	82.2	34.75	120.00
75	79	77.2	33.4	287	100%	77.2	33.40	106.41
70	74	72.5	31.9	241	100%	72.5	31.90	60.15
65	69	68.0	29.1	252	100%	68.0	29.10	5.90
60	64	62.6	24.8	322	100%	62.6	24.80	0.00
55	59	57.1	21.9	222	100%	57.1	21.90	0.00
50	54	52.0	19.2	226	100%	52.0	19.20	0.00
45	49	47.5	17.3	151	96%	48.7	17.76	0.00
40	44	43.1	15.2	211	96%	44.5	15.74	0.00
35	39	37.6	12.9	206	96%	39.2	13.54	0.00
30	34	32.4	10.8	135	96%	34.2	11.52	0.00
25	29	27.7	9.0	99	96%	29.7	9.79	0.00
20	24	23.3	7.5	66	96%	25.5	8.35	0.00
15	19	18.3	5.9	36	96%	20.7	6.82	0.00
10	14	12.5	4.1	16	96%	15.1	5.09	0.00
5	9	7.5	2.7	5	96%	10.3	3.74	0.00
0	4	3.0	1.4	0	96%	6.0	2.50	0.00

USA_OH_Cincinnati.Muni.AP-Lunken.Field.724297_TMY3.bin HEAT RECOVERY WHEEL SAVINGS AHU-2

INPUTS

Minimum Fraction Outdoor Air:	96%
Heat Recover Effectiveness:	71.8%
Set Point Temperature:	78 F
Set Point Enthalpy:	28.81 Btu/lba
Supply Air Temperature:	50.4 F
Supply Air Enthalpy:	20.10 Btu/lba
Supply Air Volume:	25000 cfm
Supply Air Density:	0.075 lb/ft^3

Rate:	\$0.08
Chiller IPLV	25.105
SAVING	iS
Cooling kWh:	17,426.36
Dollars:	\$1,394.11
75%	\$1,045.58
7370	φ1,0 13.30

StrTemp	EndTemp	Toa(F)	hoa(Btu/lba)	hrs	foa	Tma(F)	hma(Btu/lba)	Q (mmBTU)
105	109	 107	0	0	96%	105.8	1.15	0.00
100	104	102	0	0	96%	101.0	1.15	0.00
95	99	96.1	42.6	12	96%	95.4	42.05	12.83
90	94	92.2	39.6	41	96%	91.6	39.17	34.30
85	89	87.6	37.7	142	96%	87.2	37.34	97.89
80	84	82.4	35	250	96%	82.2	34.75	120.00
75	79	77.2	33.4	287	100%	77.2	33.40	106.41
70	74	72.5	31.9	241	100%	72.5	31.90	60.15
65	69	68	29.1	252	100%	68.0	29.10	5.90
60	64	62.6	24.8	322	100%	62.6	24.80	0.00
55	59	57.1	21.9	222	100%	57.1	21.90	0.00
50	54	52	19.2	226	100%	52.0	19.20	0.00
45	49	47.5	17.3	151	96%	48.7	17.76	0.00
40	44	43.1	15.2	211	96%	44.5	15.74	0.00
35	39	37.6	12.9	206	96%	39.2	13.54	0.00
30	34	32.4	10.8	135	96%	34.2	11.52	0.00
25	29	27.7	9	99	96%	29.7	9.79	0.00
20	24	23.3	7.5	66	96%	25.5	8.35	0.00
15	19	18.3	5.9	36	96%	20.7	6.82	0.00
10	14	12.5	4.1	16	96%	15.1	5.09	0.00
5	9	7.5	2.7	5	96%	10.3	3.74	0.00
0	4	3	1.4	0	96%	6.0	2.50	0.00
								437.49