



City Hall, 215 Sycamore St.  
Muscatine, IA 52761-3899  
(563) 264-1550  
Fax (563) 264-0750

## MEMO

To: Gregg Mandsager, City Administrator

From: Melanie Alexander, Art Center Director

Date: July 20, 2016

Re: Muscatine Art Center HVAC Replacement & Miscellaneous Windows Improvement  
Authorization for Change Order #1 – Change Authorization Requests

### **Introduction:**

A & J Associates presented 17 Change Authorization Requests from Crawford Company to City of Muscatine staff. Of these requests, City staff recommends Change Authorization Requests 1 through 7, 11, and 13 through 17. A & J Associates has reviewed these change authorization requests and found them to be fair in scope and extra or credit amounts offered. All of the change authorization requests meet the contract requirements for accommodating changes in scope of the work, whether an addition or reduction in work. Change Order #1 will result in an addition of \$51,500.75 to the contract. Of this amount, \$18,751.14 (CAR 7 & CAR 11) is needed for roof repairs which are on the City's deferred maintenance list. Change Authorization Requests 8, 9, 10 and 12 are also for deferred maintenance items at the Muscatine Art Center. These deferred maintenance items will be handled outside of the contract with the Crawford Company. Consequently, these change requests have been rejected with respect to Crawford's contract.

### **Details:**

CAR 1: Revision of geothermal vault to use a smaller vault with a horseshoe shaped geothermal loop header. Smaller vault results in a \$9,080 deduct.

CAR 2: Delete three variable refrigerant flow (VRF) system unit ventilators (UV) that were indicated for public spaces in the Musser House. The manufacturer's standard unit cover was not historically relevant. The metal guards used for existing radiators were not reproducible for these three units so they were deleted. Deletion results in a \$8,315 deduct

**"I remember Muscatine for its sunsets. I have never seen any  
on either side of the ocean that equaled them" — Mark Twain**

CAR 3: Shift the geothermal vault location to the north end of the header trench to shorten main piping to the Musser House. This results in a \$250 deduct.

CAR 4: Upgrading electrical load center by reducing the number of transformer taps and replacing with two new 42 circuit breaker panels. CAR-4 is a time & material (T&M) not to exceed \$16,428, which is to be applied against the \$15,000 allowance in the contract for making electrical repairs.

CAR 5: Repair and upgrading electrical items on the list prepared by A&J. Listing generally reflects items pointed out by previous electrical reviewers. CAR-5 is a time & material (T&M) not to exceed \$23,704.05. CAR-5 will result in a contract change order as it exceeds the \$15,000 contract allowance.

CAR 6: Demo existing wood header & backer for storefront. Install new treated header and back to match. Install new clad cap flashing upon completion. Patch & repair drywall/plaster ceiling in LINKAGE, paint to match.

CAR 7: Remove existing EPDM Roof, furnish and install 1/2" secure shield HD over insulation, install fully adhered roof system with 0.060 reinforced EPDM. Furnish single ply flashing at perimeter for LINKAGE only.

CAR 11: Remove existing EPDM Roof, furnish and install 1/2" Dens Dec Cement Board, install fully adhered TPO single ply poly roofing system with heat weld seams. Furnish single ply flashing at perimeter for REFERENCE LIBRARY (Musser House) only.

CAR 13: Credit for returned permit fees by The City of Muscatine

CAR 14: Replace existing panel feeder between electrical room on lower level Stanley Gallery and the new panel C located on the lower level Carriage House.

CAR 15: Replace existing Organ Blower Motor controller and associated wiring.

CAR 16: Add two new Variable Refrigerant Flow unit ventilators to attic space of Musser House for cooling/dehumidification of space.

CAR 17: Two 2" conduit to kiln room (Carriage House) from Linkage mech room. Four CAT6 cables.

**Recommendation:**

It is staff's recommendation that a change order be made to the Crawford Company contract in the amount of \$51,500.75.

Please include this item on the agenda for the July 21, 2016 Council meeting. Please contact me if you have any questions or need additional information.

Also attached are two worksheets prepared by the Finance Department which show (1) overall funding for the Art Center project and (2) available funding from city bond issues for deferred maintenance items. Building and Grounds/Public Works staff are in the process of prioritizing the deferred maintenance items based on available funding and this will be reviewed with City Council at a future meeting.

**Attachments:**

1. Spreadsheet – Recommended Change Authorization Requests, July 20, 2016
2. Spreadsheet – Deferred Maintenance CARs, July 20, 2016
3. Project Status Update – July 15, 2016
4. Finance Department worksheet for Art Center estimated total project funding
5. Finance Department deferred maintenance funding with prioritized list to be determined

**From:** Scott Stubblefield [<mailto:sstubblefield@crawford-company.com>]

**Sent:** Friday, July 15, 2016 8:06 AM

**To:** Vic Amoroso

**Cc:** Dan Fisher; 'Andy Allen'

**Subject:** RE: Art Center HVAC--#201310.01

To date this is the current status of the project, please let me know if you need anything else.

#### Musser Mansion

- All Demolition is 100%
- All VRF equipment is installed
- All refrigerant piping is complete
- Condensate is 95% complete
- All rectangular duct is installed (Round Supply to be installed at change over)
- Humidifiers are installed
- Electrical panel are installed
- Electrical power wiring is 95%
- Control Software and graphics is 100%
- Control wiring is 15%
- Geothermal Field is installed
- Geothermal vault is be installed week of 7/18
- Loop Piping inside Musser is 70%

#### Stanley Gallery

- Demo 20%
- Layout 50%
- HWS/HWR mains are installed
- No equipment is set or onsite
- Controls submittals are received and software is at 15%

#### Carriage House

- Boiler is installed.
- Boiler Flue is installed
- HWS/HWR main is installed

Scott Stubblefield

Crawford Company

1306 Mill Street

Rock Island, IL 61201

Ph: [\(309\) 788-4573](tel:3097884573)

FX: [\(309\) 788-4691](tel:3097884691)

Cell: [\(309\) 230-1433](tel:3092301433)

Project No.: 201310.01

Project Name: Muscatine Art Center HVAC Replacement & Miscellaneous Window Renovations

CHANGE AUTHORIZATION REQUEST - PROJECT FUNDED										
SD NUMBER	ITC NUMBER	DATE ISSUED	CAR NUMBER	DATE REC. BY A&J FROM CONTRACTOR	ACCEPTED BY A&J (Y OR N)	DATE SENT TO MUSEUM STAFF	ACCEPTED BY MUSEUM STAFF (Y OR N)	DATE SENT TO ADMINISTRATOR STAFF	ACCEPTED BY ADMINISTRATOR (Y OR N)	AMOUNT (\$)*
NA	NA	NA	1	5/6/2016	Y	5/9/2016	Y	6/23/2016	Y	(\$9,080.00)
M3/E1	1	5/3/2016	2	5/11/2016	Y	6/23/2016	Y	6/23/2016	Y	(\$8,315.00)
NA	NA	NA	3	5/25/2016	Y	5/25/2016	Y	5/27/2016	Y	(\$250.00)
NA	NA	NA	4	5/27/2016	Y	5/27/2016	Y	6/23/2016	Y	\$1,428.00
NA	NA	NA	5	5/27/2016	Y	5/27/2016	Y	6/23/2016	Y	\$23,704.05
NA	NA	NA	6	6/28/2016	Y	6/29/2016	Y	6/29/2016	Y	\$10,505.90
NA	NA	NA	7	6/28/2016	Y	7/1/2016	Y	7/1/2016	Y	\$13,011.10
NA	NA	NA	11	6/28/2016	Y	7/1/2016	Y	7/1/2016	Y	\$5,740.04
NA	NA	NA	13	6/28/2016	Y	6/29/2016	Y	6/29/2016	Y	(\$3,990.00)
Full Size E9	3	6/14/2016	14	6/28/2016	Y	6/29/2016	Y	6/29/2016	Y	\$6,670.00
Full Size E10	4	6/14/2016	15	6/28/2016	Y	6/29/2016	Y	6/29/2016	Y	\$1,780.00
M4 & E3	5	6/20/2016	16	6/28/2016	Y	6/29/2016	Y	6/29/2016	Y	\$6,351.66
NA	NA	NA	17	7/8/2016	Y	7/8/2016	Y	7/8/2016	Y	\$3,945.00
										\$51,500.75

MOVED FROM DEFERRED MAINTENANCE  
MOVED FROM DEFERRED MAINTENANCE

To be Reviewed/signed

Reviewed/Accepted by ALL parties

Rejected by any parties

\* Bold black amounts are adds to contract; red bracketed amounts are credits to owner/contractor

NOTES:

CAR NUMBER CAR SUMMARY

CAR-1	Revision of geothermal vault to use a smaller vault with a horseshoe shaped geothermal loop header. Smaller vault results in a \$9,080 deduct
CAR-2	Delete three variable refrigerant flow (VRF) system unit ventilators (UV) that were indicated for public spaces in the Musser House. The manufacturer's standard unit cover was <u>not</u> historically relevant. The metal guards used for existing radiators were <u>not</u> reproducible for these three units so they were deleted. Deletion results in a \$8,315 deduct
CAR-3	Shift the geothermal vault location to the north end of the header trench to shorten main piping to the Musser House. This results in a \$250 deduct
CAR-4	Upgrading electrical load center by reducing the number of transformer taps and replacing with two new 42 circuit breaker panels. CAR-4 is a time & material (T&M) not to exceed \$16,428, which is to be applied against the \$15,000 allowance in the contract for making electrical repairs.
CAR-5	Repair and upgrading electrical items on the list prepared by A&J. Listing generally reflects items pointed out by previous electrical reviewers. CAR-5 is a time & material (T&M) not to exceed \$23,704.05. CAR-5 will result in a contract change order as it exceeds the \$15,000 contract allowance.
CAR-6	Demo existing wood header & backer for storefront. Install new treated header and back to match. Install new clad cap flashing upon completion. Patch & repair drywall/plaster ceiling in LINKAGE, paint to match.
CAR-7	Remove existing EPDM Roof, furnish and install 1/2" secure shield HD over insulation, install fully adhered roof system with 0.060 reinforced EPDM. Furnish single ply flashing at perimeter for LINKAGE only.
CAR-11	Remove existing EPDM Roof, furnish and install 1/2" Dens Dec Cement Board, install fully adhered TPO single ply poly roofing system with heat weld seams. Furnish single ply flashing at perimeter for REFERENCE LIBRARY (Musser House) only.
CAR-13	Credit for returned permit fees by The City of Muscatine
CAR-14	Replace existing panel feeder between electrical room on lower level Stanley Gallery and the new panel C located on the lower level Carriage House.
CAR-15	Replace existing Organ Blower Motor controller and associated wiring.
CAR-16	Add two new Variable Refrigerant Flow unit ventilators to attic space of Musser House for cooling/dehumidification of space.
CAR-17	Two 2" conduit to kiln room (Carriage House) from Linkage mech room. Four CAT6 cables.

Project No.: 201310.01

Project Name: Muscatine Art Center HVAC Replacement & Miscellaneous Window Renovations

CHANGE AUTHORIZATION REQUEST - DEFERRED MAINTENANCE FUNDEC													
SD NUMBER	ITC NUMBER	DATE ISSUED	CAR NUMBER	DATE REC. BY A&J FROM CONTRACTOR	ACCEPTED BY A&J (Y OR N)	DATE SENT TO MUSEUM STAFF	ACCEPTED BY MUSEUM STAFF (Y OR N)	DATE SENT TO ADMINISTRATOR STAFF	ACCEPTED BY ADMINISTRATOR (Y OR N)	DATE REC BY A&J FROM MUSEUM STAFF	AMOUNT (\$)*	DATE ISSUED TO CONTRACTOR	
NA	NA	NA	7	6/28/2016	Y	7/1/2016					\$13,011.10		MOVED TO PROJECT FUNDED SPREADSHEET
NA	NA	NA	8	6/28/2016	Y	6/29/2016	N		N		\$7,725.00		REJECTED
NA	NA	NA	9 (1)	6/28/2016	Y	7/1/2016	N		N		\$19,780.00		REJECTED
NA	NA	NA	10	6/28/2016	Y	7/1/2016	N		N		\$29,212.30		REJECTED
NA	NA	NA	11	6/28/2016	Y	7/1/2016					\$5,740.04		MOVED TO PROJECT FUNDED SPREADSHEET
NA	NA	NA	12 (1)	6/28/2016	Y	7/1/2016	N		N		\$7,802.00		REJECTED
RUNNING TOTAL											\$18,751.14		

To be Reviewed/signed

Reviewed/signed and Sent to Contractor

Rejected by any parties

\* Bold black amounts are adds to contract; red bracketed amounts are credits to owner/contract

NOTES:

1. CAR-9 and CAR-12, if accepted, should be completed at the same time or CAR-12 before CAR-9. CAR-12 fixes the roof above the Music Room and CAR-9 fixes the ceiling inside the Music Room

CAR NUMBER CAR SUMMARY

CAR-7	Remove existing EPDM Roof, furnish and install 1/2" secure shield HD over insulation, install fully adhered roof system with 0.060 reinforced EPDM. Furnish single ply flashing at perimeter for LINKAGE only.	MOVED TO PROJECT FUNDED SPREADSHEET
CAR-8	100% cleaning of all brick and stone surfaces for Music Room by pressure washing. Approx 15% tuckpointing on all major joints using Historical Mortar to match existing color and texture. Seal caulking in joints with Dymonic FC Urethane. Seal surfaces with Prosoco Weather Seal after tuckpointing complete.	REJECTED
CAR-9	Ceiling repairs to MUSIC ROOM due to water damage. Replace and match existing tongue panels, stain and finish. <b>DO NOT PROCEED WITH CAR-9 WITHOUT ACCEPTING CAR-12 (MUSIC ROOM roof repair).</b>	REJECTED
CAR-10	Remove existing EPDM Roof, furnish and install 1/2" secure shield HD over insulation, install fully adhered roof system with 0.060 reinforced EPDM. Furnish single ply flashing at perimeter for STANLEY GALLERY only.	REJECTED
CAR-11	Remove existing EPDM Roof, furnish and install 1/2" Dens Dec Cement Board, install fully adhered TPO single ply poly roofing system with heat weld seams. Furnish single ply flashing at perimeter for REFERENCE LIBRARY (Musser House) only.	MOVED TO PROJECT FUNDED SPREADSHEET
CAR-12	Remove existing EPDM Roof, furnish and install 1/2" secure shield HD over insulation, install fully adhered roof system with 0.060 reinforced EPDM. Furnish single ply flashing at perimeter for MUSIC ROOM only. <b>IF ACCEPTING CAR-12, COMPLETE WORK BEFORE OR DURING WORK OF CAR-9, NOT AFTER.</b>	REJECTED

**City of Muscatine**  
**Worksheet for Available Funding for Deferred Maintenance Projects**  
**7/20/2016**

**Funding from Bond Proceeds:**

Balance from 2014 Bond Issue (Originally for Library Elevator)	\$	36,116.12
Bond Proceeds from 2016 Issue (before premium)		320,000.00
Bond Issuance Costs		(4,258.21)
Bond Premium from 2016 allocated to Deferred Maintenance projects		<u>211,712.25</u>
 Total Funding Available	 \$	 563,570.16

**Uses/Proposed Uses of Available Funding:**

**Costs/Allowances through July 20, 2016:**

Misc. Work for Patching Library, Public Safety, and Art Center Roofs	\$	1,779.00
P.O. for City Hall Roof		45,370.00
Art Center HVAC Project over Available Amount through Change Order #1 (CAR 1-7, 11, and 13-17)		34,492.37
 Allowance for Additional Art Center Project Change Orders (contract-related; excludes items separately listed below)		 50,000.00
 Allowance for Other Project Costs in Excess of Estimates		 <u>50,000.00</u> <u>181,641.37</u>
 Estimate of Funds Available for Other Projects	 \$	 381,928.79

**Prioritized List of Other Projects:**

Fire Apparatus Room Roof	\$	37,000.00
Music Roof Tuckpointing (Budgeted Amount)		23,800.00
_____		_____
_____		_____
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 Total Proposed Additional Projects from Available Funding		 <u>60,800.00</u>
 Balance not yet Assigned to Projects	 \$	 <u>321,128.79</u>

City of Muscatine  
 Art Center HVAC and Building Envelope Project  
 Actual Project Costs through July 19, 2016 and Estimated Costs to Completion

	Actual 2015/16 thru 7/19/16	Estimated to Project Completion	Estimated Total Project	Notes/Comments
Beginning Balance, July 1	\$ -	\$ 1,231,294.25	\$ -	
<b>Revenues/Project Funding:</b>				
Bond Proceeds	\$ 1,396,900.00	\$ -	\$ 1,396,900.00	
Carver Trust Grant	200,000.00	-	200,000.00	
Support Foundation Contribution	-	360,000.00	360,000.00	Use \$360,000 per Melanie 6/29/16
Other - Reallocation of Other Portion of Carver Trust Grant	-	-	-	Will only be for track lighting if done as change order
<b>Total Revenues/Project Funding</b>	<b>\$ 1,596,900.00</b>	<b>\$ 360,000.00</b>	<b>\$ 1,956,900.00</b>	
<b>Expenditures:</b>				
A & J Associates - Engineering (on final contract award)	\$ 136,829.30	\$ 19,530.70	\$ 156,360.00	
Project Management - R Hill/Bill Haag	1,750.84	1,500.00	3,250.84	\$1,500 is a Finance estimate
A One Geothermal - Test Bore and Analysis	9,900.00	-	9,900.00	
Legal Notices	109.41	-	109.41	
Kelly Heating & Cooling - Duct Work	750.00	-	750.00	
Active Thermal Concepts - Asbestos Removal	5,174.00	-	5,174.00	
Crawford Company - Contract Payments (Based on Original Bid Award)	192,599.20	1,397,650.80	1,590,250.00	
Crawford Company - Contract Payments (Remaining Alternates)	-	147,075.00	147,075.00	
<b>Change Order #1 to Crawford Contract (CAR 1-7, 11, 13-17):</b>				
Change Authorization Request #1	-	(9,080.00)	(9,080.00)	Deduct
Change Authorization Request #2	-	(8,315.00)	(8,315.00)	Deduct
Change Authorization Request #3	-	(250.00)	(250.00)	Deduct
Change Authorization Request #4 (Electrical over allowance)	-	1,428.00	1,428.00	Electrical over \$15,000 allowance
Change Authorization Request #5 (More electrical over allowance)	-	23,704.05	23,704.05	Additional electrical
Change Authorization Request #6	-	10,505.90	10,505.90	Linkage repairs
Change Authorization Request #7	-	13,011.10	13,011.10	Linkage Roof - Deferred Maint Funded
Change Authorization Request #11	-	5,740.04	5,740.04	Reference Library Roof - Deferred Maint Funded
Change Authorization Request #13	-	(3,990.00)	(3,990.00)	Deduct
Change Authorization Request #14	-	6,670.00	6,670.00	Electrical work
Change Authorization Request #15	-	1,780.00	1,780.00	Organ blower motor controller and wiring
Change Authorization Request #16	-	6,351.66	6,351.66	Ventilators to attic space in house
Change Authorization Request #17	-	3,945.00	3,945.00	Conduit to linkage room
A & J Fee on Change Order (9% of absolute value of change orders)		8,529.37	8,529.37	51,500.75 Change Order #1 Total 60,030.12 CO #1 with A&J Fee
Bond Issuance Costs Paid to Date	18,493.00	-	18,493.00	
Other	-	-	-	
Other	-	-	-	
<b>Total Expenditures</b>	<b>\$ 365,605.75</b>	<b>\$ 1,625,786.62</b>	<b>\$ 1,991,392.37</b>	
<b>Ending Fund Balance</b>	<b>\$ 1,231,294.25</b>	<b>\$ (34,492.37)</b>	<b>\$ (34,492.37)</b>	
Funding from Bond Proceeds for Deferred Maintenance to Date			34,492.37	
Ending Balance			\$ -	