



**SUBMITTAL REVIEW COMMENTS**

RETURNED TO:

COMPANY: Clark Construction Group  
 ATTN: Chris Tapas  
 SENT VIA: Project Website Upload

DATE: February 22, 2016  
 REVIEWED BY: Jeremy S. Gardner

PROJECT NAME: McCormick Event Center  
 KJWW PROJECT #: 14.0894.00  
 SECTION NO.: 23 09 00  
 DESCRIPTION: Controls (Preliminary)

CONTRACTOR: FE Moran  
 CTR. SUBMITTAL #: 230900-001  
 SUBMITTAL DATE: February 3, 2016  
 DATE RECEIVED: February 2, 2016

This review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Notations made on the shop drawings during this review do not relieve the contractor from compliance with requirements of the contract documents. Approval of a specific item shall not include approval of an assembly of which the item is a component. The contractor is solely responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of his or her work with that of all other trades; and performing all work in a safe and satisfactory manner.

ACTION KEY:

A	APPROVED				
	B	NOTATIONS, NO RESUBMITTAL (REFER TO NOTATIONS)			
		C	REVISE & RESUBMIT (REFER TO NOTATIONS)		
			F	REJECTED (REFER TO NOTATIONS)	
				NS	NOT SUBMITTED
	ITEM	NOTATIONS			
B	General	<ul style="list-style-type: none"> <li>This submittal is a preliminary design submittal and Clark requested a high level review by KJWW.</li> <li>The contractor still bears the responsibility to provide a complete controls system per the contract documents.</li> <li>A more detailed submittal review will be provided at a later date.</li> </ul>			
	Spec Mark-Up (From Trane)	<ul style="list-style-type: none"> <li>Clarify who is providing the AFMS and schedule.</li> <li>Clarify who is providing the products struck out of 23 09 00, 1.6.</li> <li>Clarify why 2.8 AUDIT LOG and 2.9 NAC auto-backup are removed from the scope.</li> <li>Confirm UPS is not required by Owner.</li> <li>Ruskin CD60 will be acceptable for control applications where thermal insulation is not required. Thermally Insulated Control Dampers per 23 09 00, 2.18B should be used for all OA and EA applications where the duct has a direct path to outside air or where noted on the permit documents.</li> <li>Verify that actuators to be used meet the requirements of the specifications.</li> <li>Several control devices such as enthalpy sensors, pressure switches, etc. Clarify why these sensors are not required and how the systems will operate</li> </ul>			



A		APPROVED	
B		NOTATIONS, NO RESUBMITTAL (REFER TO NOTATIONS)	
C		REVISE & RESUBMIT (REFER TO NOTATIONS)	
F		REJECTED (REFER TO NOTATIONS)	
NS		NOT SUBMITTED	
		ITEM	NOTATIONS
			<p>without them. E.g., how will the AHU economizer sequence be written without an enthalpy sensor?</p> <ul style="list-style-type: none"> <li>• Clarify why flow meters and BTU meters have been removed from the project.</li> <li>• Clarify why the AFMS throughout the project have been radically simplified and in some cases eliminated.</li> <li>• Clarify who is providing Occupancy Sensors.</li> <li>• Confirm that the Owner does not want sensor enclosures.</li> <li>• Verify that the controls associated with emergency equipment are not required to be on emergency power. (23 09 00, 3.1.K)</li> <li>• Verify that the simplification of the controls design does not put LEED certification in jeopardy.</li> </ul>
		Diagrams / Sequences	<ul style="list-style-type: none"> <li>• Verify all diagrams and sequences allow for LEED certification. E.g., verify that all air is filtered to meet minimum MERV requirements, if pursuing IEQc5. Where only one filter bank is shown, note if this is a combined pre and final filter rack or if this is a single filter with a particular MERV rating.</li> <li>• Clarify how the fan powered VAV boxes will operate in cooling mode. If the plenum air mixes with primary air, the supply air will be warmer than required to meet the cooling load. No cooling coil appears to be present.</li> <li>• Provide a control sequence for any VAV box operating in conjunction with finned tube radiation.</li> <li>• Confirm number of pumps shown for HW Flow and CHW Flow.</li> </ul>

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SUBMITTAL REFERENCED ABOVE.