

PROJECT: Design Build Agreement PH2

CONTRACTOR: Johnson Controls Fire Protection LP

DATE: February 1, 2023

CHANGE ORDER #: COR#23

This contract shall be changed as follows:

CHANGES:

- | | | |
|----|------------------------------------|--------------|
| 1. | Mountain Ridge Duct Det. Additions | \$109,312.03 |
| 2. | [REDACTED] | |
| 3. | [REDACTED] | |
| 4. | [REDACTED] | |
| 5. | [REDACTED] | |

TOTAL CHANGE ORDER: \$109,312.03


By signing below the contractor acknowledges acceptance of this change order as full compensation to the contractor for all costs related in any way to this work and its effect on other work already contracted for.

CONTRACT STATUS:

Original Contract Sum	\$3,045,829.00	
Previous Change Orders	\$201,980.18	
Current Contract	\$3,247,809.18	
This Change Order	\$109,312.03	
NEW CONTRACT TOTAL	\$3,357,121.21	

The Contract time will be extended by TBD calendar days. Therefore, the date of Final Completion as of the date of this Change Order is July 30, 2023

NOT VALID until signed by the Contractor, Architect, and Owner, and approved by the School District's Board of Education (if applicable).

	<u>Johnson Controls Fire Protection LP</u>	<u>Douglas County School District</u>
Consultant	Contractor	
	Robert Cull	
By	By 	By <u>Richard Cosgrove</u> Chief Operations Officer
Date	Date	Date
	<u>2/23/2023</u>	

	A	B	C	D
1		Count	Cost	Total
2	Subcontracting Installation			
3	Material	89	\$ 45.00	\$ 4,005.00
4	Labor	321.25	\$ 115.00	\$ 36,943.75
5	Markup	0	\$ 4,433.25	\$ 4,433.25
6				
7	Subtotal			\$ 45,382.00
8				
9	JCI Labor and Materials			
10				
11	PM	16	\$ 133.50	\$ 2,136.00
12	CAD	16	\$ 105.00	\$ 1,680.00
13	Design	16	\$ 115.00	\$ 1,840.00
14	Commissioning	80	\$ 115.00	\$ 9,200.00
15	Admin	2	\$ 95.00	\$ 190.00
16	Fire Alarm Parts	85	\$ 437.32	\$ 37,172.03
17				\$ -
18	Subtotal			\$ 52,218.03
19	Design Builders Fee (reduced) at .12			\$ 11,712.00
20				
21	Total COR			\$ 109,312.03

TLH FIRE

Specializing in Life Safety

Engineering a Safer Tomorrow

6901 S. Pierce Street | Suite 205 | Littleton, CO 80128

tami@TLHFire.com | 303.517.1775

Mountain Ridge Dampers & Site Conditions



December 22, 2022

RE: Douglas County School District Mountain Ridge Middle School Dampers & Site Conditions

TLH Fire performed an on-site observation on November 22, 2022 with the intent to document the building construction, life safety conditions and evaluate the existing fire/smoke dampers. Unfortunately, the existing architectural record documentation does not appear to be in compliance with the fire area allowances of either the 1997 Uniform Building Code (UBC) or the 2021 International Building Code (IBC).

Site Observations:

1. The allowable fire area for the E occupancy is over UBC as well as IBC requirements.
2. Several fire/smoke dampers are not installed that were shown on the HVAC record drawings.
3. The crawl space:
 - a. Is not sprinklered except for mechanical rooms.
 - b. Is separated from the remainder of the building with a concrete slab and 1-hour vertical HVAC shafts with fire/smoke dampers at shaft penetrations.
4. The gymnasium:
 - a. Is not sprinklered.
 - b. Is separated from the main building with a CMU wall (assumed to meet 2-hour barrier IBC requirements.)

Recommendations:

1. The fire alarm upgrade project is a Level 1 alteration. Field verified fire/smoke dampers will remain in place. Provide 2021 International Mechanical Code (IMC) compliant smoke detection for fire/smoke dampers. Please refer to attached floor plans for field verified fire/smoke damper locations. Clouded dampers were inaccessible or found on additional documentation reviewed after the site visit and require field verification. These dampers should be assumed to be present unless found to be not installed. Update record drawings accordingly.
2. Remove storage from non-sprinklered portion of the crawl space. Do not allow vehicles to be parked in crawl space. Provide signage that is clearly visible both inside and outside the crawl space entrance.
3. Install smoke detection in non-sprinklered gymnasium in accordance with IFC 2021 907.2.3 Exception 3. TLH Fire has had success with OSID beam detectors to minimize smoke detector quantities and well as limiting nuisance alarms.
4. Incorporate accurate room name and numbers into the fire alarm drawings and graphic map.

From the coordination meeting between Douglas County School District, JCI, TLH Fire, South Metro Fire Rescue, and DFPC on December 7th, 2022, the existing certificate of occupancy is still valid. The building will need to be evaluated if/when the school district decides to perform future IEBC Level 2 or Level 3 alternations.

Thank you,

Tami Lynn Holley, PE



12/22/2022

Jace Horak, TLH Fire (FPE)



January 31, 2023

Micheal Petsch, Project Manager
Johnson Control, Inc.
14200 E. Exposition Ave.
Aurora, CO 80012

Re: Mountain Ridge
LEI Project No.: 220013

**Change Order Request
COR 004 – Added Devices**

LEI Companies, Inc. will provide all labor, equipment and supervision required to provide the following:

- Provide and install wire and supports for (2) beam detectors
- Provide and install conduit, wire and supports for (25) control modules
- Provide and install wire and supports for (40) duct detectors
- Provide and install wire and supports for (22) smoke detectors
- Labor for circuit tracing

Change Order Request Price: \$45,383

Inclusions:

Work to be performed between 7:00am to 3:30pm

Exclusions:

Patching and painting of existing surfaces
Additional Requirements of the Authority Having Jurisdiction (AHJ)

Clarifications:

1. We reserve the right to correct this price for errors and omissions.
2. This price covers direct costs only and we reserve the right to claim for impact and consequential costs.

Sincerely,



RyAnn Cunningham
Special Projects Project Manager

The above price and scope of this Change Order Request are satisfactory and are hereby accepted. All work to be performed under same terms and conditions of the original contract unless specified otherwise here within.

Authorized Signature, Johnson Control, Inc.

Date of Acceptance

IEBC 2021 Alteration Levels:

SECTION 503 ALTERATION—LEVEL 1

503.1 Scope. Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.

503.2 Application. Level 1 alterations shall comply with the provisions of Chapter 7.

SECTION 504 ALTERATION—LEVEL 2

504.1 Scope. Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

504.2 Application. Level 2 alterations shall comply with the provisions of Chapter 7 for Level 1 alterations as well as the provisions of Chapter 8.

SECTION 505 ALTERATION—LEVEL 3

505.1 Scope. Level 3 alterations apply where the work area exceeds 50 percent of the building area.

505.2 Application. Level 3 alterations shall comply with the provisions of Chapters 7 and 8 for Level 1 and 2 alterations, respectively, as well as the provisions of Chapter 9.

IFC (2021) 907.2.3 Group E.

A manual fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. A manual fire alarm system is not required in Group E occupancies with an occupant load of 50 or less.
2. Emergency voice/alarm communication systems meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall not be required in Group E occupancies with occupant loads of 100 or less, provided that activation of the manual fire alarm system initiates an approved occupant notification signal in accordance with Section 907.5.
3. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 3.1. Interior corridors are protected by smoke detectors.
 - 3.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 3.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
4. Manual fire alarm boxes shall not be required in Group E occupancies where all of the following apply:
 - 4.1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1.
 - 4.2. The emergency voice/alarm communication system will activate on sprinkler water flow.
 - 4.3. Manual activation is provided from a normally occupied location.

KEYNOTES:

- 1 STRATEGY USED FOR DAMPER ACTUATION: IMC 607.3.3.2.1: WHERE A SMOKE DAMPER IS INSTALLED WITHIN A DUCT, A SMOKE DETECTOR SHALL BE INSTALLED INSIDE THE DUCT OR OUT-SIDE THE DUCT WITH SAMPLING TUBES PROTRUDING INTO THE DUCT. THE DETECTOR OR TUBES WITHIN THE DUCT SHALL BE WITHIN 5 FEET (1524 MM) OF THE DAMPER. AIR OUTLETS AND INLETS SHALL NOT BE LOCATED BETWEEN THE DETECTOR OR TUBES AND THE DAMPER. THE DETECTOR SHALL BE LISTED FOR THE AIR VELOCITY, TEMPERATURE AND HUMIDITY ANTICIPATED AT THE POINT WHERE IT IS INSTALLED. OTHER THAN IN MECHANICAL SMOKE CONTROL SYSTEMS, DAMPERS SHALL BE CLOSED UPON FAN SHUTDOWN WHERE LOCAL SMOKE DETECTORS REQUIRE A MINIMUM VELOCITY TO OPERATE.
- 2 STRATEGY USED FOR DAMPER ACTUATION: IMC 607.3.3.2.3: WHERE A SMOKE DAMPER IS INSTALLED WITHIN AN UNDUCTED OPENING IN A WALL, A SPOT-TYPE DETECTOR SHALL BE INSTALLED WITHIN 5 FEET (1524 MM) HORIZONTALLY OF THE DAMPER. THE DETECTOR SHALL BE LISTED FOR RELEASING SERVICE IF USED FOR DIRECT INTERFACE WITH THE DAMPER.
- 3 STRATEGY USED FOR DAMPER ACTUATION: IMC 607.3.3.2.5: WHERE A SMOKE DETECTION SYSTEM IS INSTALLED IN ALL AREAS SERVED BY THE DUCT IN WHICH THE DAMPER WILL BE LOCATED, THE SMOKE DAMPERS SHALL BE PERMITTED TO BE CONTROLLED BY THE SMOKE DETECTION SYSTEM.
- 4 ROOM DOES NOT HAVE SUITABLE CONDITIONS FOR SMOKE DETECTION. TO AVOID NUISANCE ALARMS, HEAT DETECTOR AND SPRINKLER HEAD (FLOW ALARM) WILL INITIATE DAMPER CLOSURE.