



723 Harvard Drive - Owensboro, Kentucky 42301-6185  
Phone: (270) 683-1158 Fax: (270) 683-2446 E-mail: office@rbsdesigngroup.com

# TRANSMITTAL

PROJECT NAME: BG 11-163 - Henderson County Schools High School HVAC Replacement ARCHITECT'S PROJECT NO.: Y11006

TO: Henderson County Board of Education DATE: 9/28/11

ATTN: Dr. Richey, Superintendent

## WE TRANSMIT:

☒ herewith ☐ under separate cover via  
☐ in accordance with your request

## FOR YOUR:

☒ approval ☐ distribution to parties  
☐ review & comment ☐ record  
☐ use ☐

## THE FOLLOWING:

☐ Drawings ☐ Shop Drawing Prints ☐ Samples  
☐ Specifications ☐ Shop Drawing Reproducibles ☐ Product Literature  
☒ Change Order ☐

COPIES	DESCRIPTION
1 each	Proposed Change Order No. 1 with Mechanical Consultants for \$20,380.00
3 each	Supplemental Information Sheet

REMARKS We ask that this change order be on the agenda for approval at the October meeting. Please sign all 3 copies of the Supplemental Information Sheet and return 2 of them to our office, along with a copy of the minutes indicating approval of the change order.  
If you have any questions, please let us know. Thank you.

COPIES TO: File

BY:

  
Joni Lanham

# **AIA® Document G701™ – 2001**

## Change Order

<b>PROJECT</b> (Name and address):	<b>CHANGE ORDER NUMBER:</b> 001	<b>OWNER:</b> <input type="checkbox"/>
Henderson County High School HVAC Upgrade	<b>DATE:</b> September 28, 2011	<b>ARCHITECT:</b> <input type="checkbox"/>
		<b>CONTRACTOR:</b> <input type="checkbox"/>
<b>TO CONTRACTOR</b> (Name and address):	<b>ARCHITECT'S PROJECT NUMBER:</b> Y11006	<b>FIELD:</b> <input type="checkbox"/>
Mechanical Consultants, Inc.	<b>CONTRACT DATE:</b> June 20, 2011	<b>OTHER:</b> <input type="checkbox"/>
7727 Old Highway 81	<b>CONTRACT FOR:</b> General Construction	
Owensboro, Kentucky 42301		

### THE CONTRACT IS CHANGED AS FOLLOWS:

(Include, where applicable, any undisputed amount attributable to previously executed Construction Change Directives)

- |   |                  |
|---|------------------|
| 1. Duct modifications for CR 100 and CR 203.  | ADD: \$ 7,500.00 |
| 2. Modify MZ-9 and MZ-10 zone head duct work. | ADD: \$ 9,800.00 |
| 3. Additional duct and diffusers MZ-9, CR212. | ADD: \$ 3,080.00 |

TOTAL CHANGE ORDER \$20,380.00

The original Contract Sum was	\$ 1,531,800.00
The net change by previously authorized Change Orders	\$ 0.00
The Contract Sum prior to this Change Order was	\$ 1,531,800.00
The Contract Sum will be increased by this Change Order in the amount of	\$ 20,380.00
The new Contract Sum including this Change Order will be	\$ 1,552,180.00

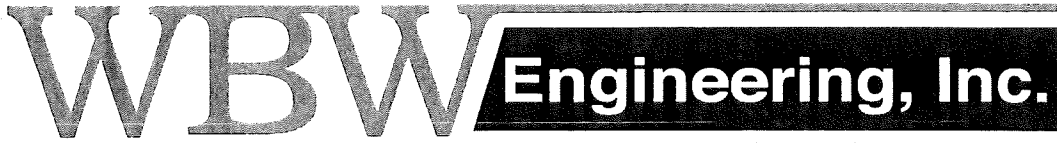
The Contract Time will be increased by seventy-five (75) days.

The date of Substantial Completion as of the date of this Change Order therefore is October 15, 2011

**NOTE:** This Change Order does not include changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

### NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

<u>RBS Design Group, P.S.C.</u>	<u>Mechanical Consultants, Inc.</u>	<u>Henderson County Schools</u>
<b>ARCHITECT</b> (Firm name)	<b>CONTRACTOR</b> (Firm name)	<b>OWNER</b> (Firm name)
Architecture, 723 Harvard Drive,	7727 Old Highway 81, Owensboro,	1805 Second Street, Henderson, Kentucky
Owensboro, Kentucky 42301	Kentucky 42301	42420
<b>ADDRESS</b>	<b>ADDRESS</b>	<b>ADDRESS</b>
<b>BY</b> (Signature)	<b>BY</b> (Signature)	<b>BY</b> (Signature)
Jim Ivy <i>FOR</i>	Mark Sanders <i>APPROVAL</i>	Dr. Thomas Richey <i>ONLY</i>
(Typed name)	(Typed name)	(Typed name)
<b>DATE</b>	<b>DATE</b>	<b>DATE</b>



September 23, 2011

Henderson County Board of Education  
1805 Second Street  
Henderson, KY 42420

Attn: Dr. Thomas Richey  
Mr. James Taylor

Re: Henderson County High School  
HVAC Upgrade – Request for Change Order #1

We propose the following changes to the scope of work for this project for corrections due to unknown conditions.

Pricing has been obtained from Mechanical Consultants and appears to be acceptable.

Cost for duct modification for CR 100 and CR 203	\$ 7,500.00
Cost for modification of zone head ductwork on MZ-9 & MZ-10	\$ 9,800.00
<u>Cost for additional duct and diffusers MZ-9, CR 212</u>	<u>\$ 3,080.00</u>
	\$20,380.00

See attached breakout from MCI for more detailed description. RBS Design Group is preparing the AIA Change Order and KDE Change Order Supplemental Information Form. These documents will be forwarded to you on Monday.

We hope that you will be able to bring this change before the board during the meeting scheduled for Monday night, September 26th.

Sincerely,

WBW ENGINEERING, INC.

Thomas Waldron III, PE

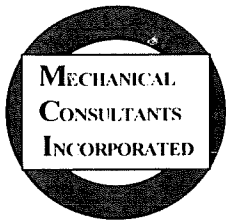
Enclosures

C: RBS Design Group

3000 Canton Street, Hopkinsville, KY 42240

Phone: 270-886-2536 Fax: 270-885-7978

office@wbwengr.com for correspondence mail@wbwengr.com for drawings



# MECHANICAL CONSULTANTS INC.

MECHANICAL CONTRACTOR

7727 Old Ky 81 Owensboro, Ky 42301  
Phone: 270-785-9505 Fax: 270-785-9212  
Email: msanders@mci-mechanical.com

September 23, 2011

MCI job # 31113 CO # 01- combined

Henderson County Public Schools  
1805 Second Street  
Henderson, KY 42301  
Attn: James Taylor

**Re: Replace duct to Room 203 on MZ-6  
Rework zone head on MZ-9 and MZ-10  
Additional duct and diffusers in CR 212**

Dear James:

The existing duct work appears to have been modified when the original MZ RTUs were replaced with the Carrier MZ RTUs. Originally MZ-6 had 12 zones. The Carrier unit only had provisions for 10 zones. The original duct was changed as follows.

**Classroom Room 301** and the adjacent **Office** was combined into a single zone. The classroom is 588 sq ft and the office area is 625 sq ft. The zone is capable of 1200 CFM. The existing ductwork should adequately handle both areas. There is some loss of control as the thermostat is in the classroom and there would not be a thermostat in the Office area, but this may be acceptable.

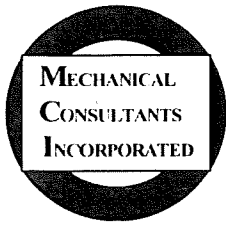
**Classroom 203 & Classroom 100** were combined into a single zone. Original duct to Room 301 was capped from the zone head. The duct to CR 203 was connected by a flexible duct to the duct to CR 100. The result is inadequate air flow to both classrooms and only one classroom has an active thermostat. Restrooms 218 and 219 are on a separate thermostat controlled zone. We propose the following.

- Cut the duct to RR 218 & 219 and cap from the unit
- Connect restroom duct to duct serving Conference room 118 with balance damper to restroom
- Extend zone that was serving the restrooms to connect to duct going to CR 203
- Insulate new duct with bubble wrap
- Wire CR 203 thermostat to CME controller

**Cost for duct modifications for CR 100 and CR 203 ..... \$ 7,500**

Material .... \$ 2,522 Labor ... \$ 4,000 Overhead & profit ..... \$ 978

The existing duct work for MZ-9 and MZ-10 does not match the duct as drawn on sheet M1.2. The CME zone head matches the duct drawing. The existing duct lay out results in no air flow to the Principal reception area and associated work area. The office for Amand Lacer was not shown to be on the MZ unit and has no thermostat. Classroom 209 is on a sub-zone with the principal's office and has inadequate air flow. Classroom 212 is served by both furnace F-2 and F-4. Classrooms 213 and 211 are both on furnace F-3 with no thermostat control in CR 211. The boys and girls restroom are on the same duct as CR 210 resulting in low air flow to CR 210.



The ductwork in the CME units can be changed to accommodate the actual duct layout. The new zone head duct layout would be as shown on the attached drawings and as noted below.

#### **MZ-9**

- Furnace F-3 serves CR 213
- Furnace F-2 serves CR 212
- Furnace F-1 serves CR 210
- Furnace F-4 serves CR 211 with manual sub-zone dampers to serve the corridor and restrooms. Some field duct changes are necessary to relocate the duct to CR 211 and connect the corridor entry diffuser to the duct to the restrooms.

#### **MZ-10**

- Furnace F-2 serves CR 207
- Furnace F-4 serves CR 209
- Furnace F-1 has sub-zones for Principal's office and Reception area/work area with each having thermostat control. A manual sub-zone would serve the entry corridor.
- Furnace F-3 has sub-zones for the Break Room area and for Amanda Lacer's office with each having thermostat control.
- The thermostat currently in the corridor would be moved to Amanda Lacer's office

#### **Cost to modify MZ-9 and MZ-10 zone head duct work ..... \$ 9,800**

Material ..... \$ ~~3,522~~ 5,532 Labor ..... \$ 4,990 Overhead & profit .... \$ 1,278

#### **MZ-9 Classroom 212 additional duct and diffusers**

Classroom 212 air flow is restricted by existing transitions in the duct to go under a steel beam. An existing 10 inch duct connected before the transitions and is routed to CR 212. This duct is supplying 722 additional CFM to the classroom. This duct was not shown on the duct drawings.

- Add two additional diffusers in CR 212
- Connect diffusers to existing 10 inch duct
- Insulate duct

#### **Cost to add duct in Classroom 212 ..... \$ 3,080**

Material ..... \$ 928 Labor .... \$ 1,750 Overhead & profit ..... \$ 402

#### **Total for all above changes ..... ADD \$ 20,380**

Material .... \$ 6,982 Labor ..... \$ 10,740 Overhead & profit .... \$ 2,658

Sincerely,  
Mechanical Consultants Inc.

**Mark Sanders**  
President

District: Henderson County District Code: 251 Facility Name: Henderson Co. High School School Code: 060

BG#: 11-163 Project: Henderson Co. High HVAC Upgrade Contract/Bid Package: G.C.

Original Contract Sum: \$ 1,531,800.00 Change Order Number: 01

Requested Change Order Amount: \$ 20,380.00 Time Extension Required: ☒ Yes ☐ No

**NOTE: All change orders shall be submitted with complete cost breakdown including material, labor, overhead and profit, and any other descriptive drawings and information.**

Contract change requested by:

- |  |   |
|--|---|
| <input type="checkbox"/> Local Board of Education      | <input type="checkbox"/> General Contractor   |
| <input checked="" type="checkbox"/> Architect/Engineer | <input type="checkbox"/> Construction Manager |
| <input type="checkbox"/> Code Enforcement Official     | <input type="checkbox"/> Other: _____         |

Change Order Description and Justification:

Modification required to existing ductwork which was not installed per record drawings.

These discrepancies could not be determined from field observations.

Cost Benefit to Owner:

Revised ductwork will give added airflow to areas not receiving adequate airflow at this time.

Have contract unit prices been utilized to support the cost associated with this change order?

☐ Yes ☒ No

Is the cost for this change order supported by an alternate bid or competitive price quote(s)?

☐ Yes ☒ No

Does this Change Order affect the total Architect/Engineer design fee for this project? (Y) (N) No

Current A/E Contract Amount: \$ \_\_\_\_\_

Fee Amount for this Change±: \$ \_\_\_\_\_

New A/E Contract Amount: \$ \_\_\_\_\_

Board of Education Designee Signature

Attach additional pages if necessary.

Date