

## ADDENDUM

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Project: LDS Coltman 1, 2 2015 HVAC

Project No.: 504-7005

Addendum No.: 1

Project Address: 12448 North, 5th East, Idaho Falls, Idaho 83401

Date: July 31, 2015

Owner: Corporation of the Presiding Bishop of The Church of Jesus Christ  
Of Latter-day Saints, a Utah corporation sole.

From (Architect): Engineered Systems Associates, Inc.

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### Instructions to Prospective Bidders:

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents and/or prior Addenda as noted below. All conditions, requirements, materials and workmanship are to be as described in the Contract Documents unless specifically stated otherwise. This Addendum consists of 1 page(s) and the attached Specification Section 23 0933, Prebid Meeting Attendance Sheet, and Asbestos Report.

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### 1. Changes to Specifications:

- a. See attached Asbestos Report from the Owner. There is no known asbestos in the attic.
- b. Add Specification Section 23 0933 Temperature Controls.
- c. Add the following to Section 23 2600, Paragraph 2.1.B:
  - B. Manufactured Units
    1. Condensate Pump
      - a. Rated at 225 gph at 15 feet total head. Complete with one gallon polystyrene tank with pump and automatic float control. 1/5 hp, 120 V, one phase, 60 Hertz.
      - b. Condensate piping shall be Type M copper or Schedule 40 PVC.
      - c. Approved Manufacturers -
        - 1) No. CU551UL by Beckett Pumps, (888) 232-5388
        - 2) No. VCL45S by Little Giant Pump Co, Oklahoma City, OK (405) 947-2511
- d. See attached Prebid Meeting Agenda.

### 2. Changes to Drawings:

- a. Sheet M0.2- Reference Note 8.
  - i. Split System in Nursery 112 does not work. Owner not want it. Contractor to dispose of it.
  - ii. Split system in Classroom 143 to be removed and delivered to Owner.
- b. Sheet M1.1
  - i. Reference Note 10. Gas regulators as shown are existing. Contractor does not need to supply regulator for existing furnaces, only for new furnaces where they might connect to 2 psi gas line.
  - ii. Hall 002. At Contractor's option, the return duct may be moved into the classrooms, which have a higher ceiling, rather than redo the hallway ceiling. If Contractor decides to leave the return in the hallway, remove existing lights, extend conduit and wiring, and re-hang lights on lowered ceiling.
  - iii. Provide new Honeywell T-7350 thermostat zone for the new F-6 furnace system. See attached Specification Section 23 0933. Follow standard LDS Church control drawings.
- c. Sheet M1.2
  - i. Furnace Room adjacent to Classroom 141. Existing smoke detector at existing furnaces will need to be relocated to set new F-4 furnace.

**End of Addendum**

**SECTION 23 0933****ELECTRIC AND ELECTRONIC CONTROL SYSTEM FOR HVAC****PART 1 - GENERAL****1.1 SUMMARY**

- A. Includes But Not Limited To:
  - 1. Furnish and install automatic temperature control system as described in Contract Documents.
  - 2. Furnish and install conductors and make connections to control devices, motors, and associated equipment.
  - 3. Assist in air test and balance procedure.
- B. Related Requirements:
  - 1. Section 23 0501: Common HVAC Requirements.
  - 2. Section 23 0593: Duct testing, adjusting, and balancing of ductwork.
  - 3. Section 23 3300: Furnishing and installing of temperature control dampers.
  - 4. Division 26:
    - a. Furnishing and installing of raceway, conduit, and junction boxes, including pull wires, for temperature control system except as noted above.
    - b. Power wiring to magnetic starters, disconnect switches, and motors.
    - c. Motor starters and disconnect switches, unless integral with packaged equipment.

**1.2 SUBMITTALS**

- A. Informational Submittals:
  - 1. Qualification Statements: Submit document from Approved Distributor confirming contractor sponsorship.
- B. Closeout Submittals:
  - 1. Include following in Operations And Maintenance Manual specified in Section 01 7800:
    - a. Operations and Maintenance Data:
      - 1) Leave with O&M Manual specified in Section 23 0501.

**1.3 QUALITY ASSURANCE**

- A. Qualifications: Requirements of Section 01 4301 applies, but is not limited to the following:
  - 1. Installer:
    - a. Before bidding, obtain sponsorship from a local, Approved Distributor specified under PART 2 PRODUCTS. Initial requirements for sponsorship are:
      - 1) Be one of following Honeywell supported partners:
        - a) Honeywell Authorized Control Integrator (ACI).
        - b) Honeywell Building Controls Specialist (ACS).
        - c) Honeywell Building Controls Associate (BCS).
        - d) Honeywell-Commercial Automation Contractor (CAC).
      - 2) Receive product training from and exhibit LCBS system skills to sponsoring Approved Distributor.

## PART 2 - PRODUCTS

### 2.1 SYSTEMS

#### A. Manufacturers:

1. Manufacturer Contact List:
  - a. Air Products & Controls Ltd, Pontiac, MI [www.ap-c.com](http://www.ap-c.com).
  - b. Fire-Lite Alarms, Northford, CT [www.firelite.com](http://www.firelite.com).
  - c. Honeywell Inc, Minneapolis, MN [www.honeywell.com](http://www.honeywell.com).
  - d. ICCA Firex, Carol Stream, IL [www.icca.invensys.com](http://www.icca.invensys.com).
  - e. System Sensor, St Charles, IL [www.systemsensor.com](http://www.systemsensor.com).
  - f. Zimmerman Technologies, Renton, WA (425) 255-1906.

#### B. Distributors:

1. Obtain WebStat Building Manager, RP panels, thermostats, and other control equipment from following Sponsoring Approved Distributors. See Section 01 4301:
2. Idaho:
  - a. Wilson-Mohr, Inc: (801) 486-8791 [kmurphy@wilsonmohr.com](mailto:kmurphy@wilsonmohr.com) Kathy Murphy.
  - b. Control Equipment Co: (800) 452-1457 [rhowe@controlequiputah.com](mailto:rhowe@controlequiputah.com) Ray Howe.
  - c. Control Solutions & Design: (208) 375-4422 [pdl@csdidaho.com](mailto:pdl@csdidaho.com) Paul Lachowsky.
  - d. RSD Total Control: (720) 648-2597 [mjohnson@rsdtc.com](mailto:mjohnson@rsdtc.com) Mark Johnson.
3. Utah:
  - a. Wilson-Mohr, Inc: (801) 486-8791 [kmurphy@wilsonmohr.com](mailto:kmurphy@wilsonmohr.com) Kathy Murphy.
  - b. Control Equipment Co: (800) 452-1457 [rhowe@controlequiputah.com](mailto:rhowe@controlequiputah.com) Ray Howe.
  - c. RSD Total Control: (720) 648-2597 [mjohnson@rsdtc.com](mailto:mjohnson@rsdtc.com) Mark Johnson.

#### C. Performance:

1. Design Criteria:
  - a. Automatic Temperature Control System design concept utilizes communicating thermostats located near furnace, with electronic sensors and electric / electronic actuation of dampers and with thermostats connected with Echelon approved communication cable. A WebStat Building Manager will interface with the thermostats to provide access via internet browser.
  - b. Network communications and control devices will be LonWorks compliant. System shall include HVAC control, WebStat Building Manager to provide maintenance management functions related to normal building operations.

#### D. Components:

1. Thermostats And Sensors:
  - a. Thermostat and Sensor Kit:
    - 1) Category Four Approved Product. See Section 01 6200 for definitions of Categories:
      - a) Part Number Y7335H1009 consisting of following:
        - (1) Communicating Thermostat: Low voltage type provided with automatic change-over feature for both heating and cooling stages, seven-day / 365 day program with two starts and stops per day, and provisions for damper operators. Honeywell T7350H1009.
        - (2) Push-Button Remote Room Sensor: Honeywell T7771A1005 with three push buttons, OVERRIDE, WARMER, COOLER, and with selectable ohm resistance, 10k or 20k.
        - (3) Discharge Air Sensor: Honeywell C7041B2005, 6 inch.
  - b. Plain Face Remote Room Sensor:
    - 1) Category Four Approved Products. See Section 01 6200 for definitions of Categories:
      - a) Honeywell TR21-A, plain face, 10k ohms.

- b) Honeywell TR21, plain face, 20k ohms.
  - 2. Transformer:
    - a. 120 / 24 V, 50VA Honeywell AT150F.
    - b. 120 / 24 V, 75VA Honeywell AT175F.
  - 3. Damper Actuators:
    - a. Electric type equipped for Class I wiring.
    - b. Shall not consume power during UNOCCUPIED cycle or use chemicals or expandable media.
    - c. Have built in spring return.
    - d. Category Four Approved Product. See Section 01 6200 for definitions of Categories:
      - 1) Honeywell MS8105A1030/U.
      - 2) Honeywell MS8105A1130 w/ End switch.
  - 4. Conductors:
    - a. Color-coded and No. 16 and No. 12 AWG Type TWN, TFN, or THHN, stranded.
    - b. Thermostat Cable: 12, 8, or 4 conductor, 18AWG solid copper wire, insulated with high-density polyethylene. Conductors parallel enclosed in brown PVC jacket (22 AWG cable not allowed).
    - c. Communicating Cable:
      - 1) Class Two Quality Standard. See Section 01 6200:
        - a) CAT 4, 22 gauge (0.025 in) (0.645 mm), twisted pair, non-plenum and non-shielded cable.
- E. Operation Sequences:
1. Programmable thermostat shall control unoccupied and occupied status of fan system based on adjustable seven day program and remote room sensor / push button. Fan shall run continuously in occupied mode and cycle in unoccupied mode.
  2. Adjustable heating and cooling set points shall control space temperature by activating either heating or cooling equipment. Programmable thermostat provides automatic change over between heating and cooling.
  3. Remote room sensor provides optional override of thermostat program by allowing three hour timed override of thermostat program at any time by pushing ON / OFF button on remote room sensor cover. This shall activate thermostat to occupied mode and system shall control to occupied set point.
  4. Minimum outside air damper, spring return type, shall open in occupied mode and remain closed in unoccupied mode in zones using outside air.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Interface With Other Work:
  1. Calibrate room thermostats as required during air test and balance. Insulate sensor J-box with fiberglass insulation; expandable/ foam insulation is NOT acceptable
  2. Instruct air test and balance personnel in proper use and setting of control system components.
  3. Install low voltage electrical wiring in accordance with Division 26 of these Specifications.
- B. Communication Cable:
  1. Network communicating thermostats and WebStat Building Manager together with specified communicating cable.
  2. Do not bundle communication cables with cables of other systems. Maintain 12 inches minimum distance from wires of other systems, except communication cable may cross other low-voltage wiring if done perpendicularly.

- C. Safety Controls: Interlock duct smoke detectors to keep heating, cooling, and system fan from operating when detector is energized.
- D. Mount damper actuators and actuator linkages external of airflow. Make certain dampers operate freely without binding or with actuator housing moving.
- E. Paste copy of record control wiring diagram on back of relay panel door cover for each multiple furnace system.

### 3.2 FIELD QUALITY CONTROL

- A. Field Tests:
  - 1. Calibrate, adjust, and set controls for proper operation, operate systems, and be prepared to prove operation of any part of control system. This work is to be completed before pre-substantial completion inspection.
  - 2. Test each individual heating, cooling, and damper control for proper operation using control system.

### 3.3 SYSTEM STARTUP

- A. For systems with WebStat Building Manager.
  - 1. Contractor is responsible for a fully functioning control system accessible via internet web browser. Contractor is responsible to coordinate Network start up with assistance from local IT technician. Local IT technician shall provide Static, IP address, Network Mask, Default Gateway, Primary DNS Server, Local Host Name, Local Domain Name.
  - 2. Contractor is responsible configuring all thermostats with proper zone names, zone scheduling, proper Church conference / holiday scheduling, all to be coordinated with local FM manager. Set proper clock setting including day/month/year. Use WebStat as network time master from "System" tab in WebStat.
  - 3. Set remote sensor to T7771.
  - 4. Set remote humidity to none unless using remote humidity sensor on DH systems.
  - 5. Set Occupancy sensor to None.
  - 6. Set Discharge Air Temp sensor to Remote.
  - 7. Set Heating / Cooling to proper stages
  - 8. Set heat cycle rates to 9 cph and cooling to 4 cph. Set discharge high limit to 110 degrees but do not activate (check) the high limit option. This is only to be used later by Owner if equipment experiences issues with system overshoot.
  - 9. Set Aux relay to "Time of Day".
  - 10. Set fan switch operation to "ON".
  - 11. Set minimum UnOcc start time for all days. No days shall be scheduled Unconfigured.
  - 12. Set occupied start times to match meeting start times; provided by local FM manager.
  - 13. Place all zone over-ride durations to one (1) hour except for Bishop and Stake area which shall be set to two (2) hours.
  - 14. Set Occupied default heating setpoints to 70 degrees, cooling setpoints to 74 degrees.
  - 15. Set UnOccupied default heating setpoint to 60 degrees, cooling setpoints to 90 degrees.
  - 16. Set each zone to applicable Holiday scheduling for General & Stake Conferences.

### 3.4 ADJUSTING

- A. Program minimum of one (1) day's operation into thermostat memory function.

### 3.5 CLOSEOUT ACTIVITIES

- A. Instruction Of Owner:
1. Include as part of training required in Section 23 0501, following training:
    - a. Training shall be by personnel of installing company and utilize operator's manuals and as-built documentation.
    - b. Provide training in (2) two sessions including WebStat for up to six (6) hours total:
      - 1) First session will occur between system completion and Substantial Completion.
      - 2) Second session will occur within forty five (45) days of Substantial Completion when agreed upon by Owner.
    - c. Training shall include sequence of operation review, selection of displays, modification of schedules and setpoints, troubleshooting of sensors, etc, as follows:
      - 1) Control System Overview:
        - a) Show access to system through both individual thermostats and Internet browser via WebStat and how network works. Demonstrate scheduling for Stake and General Conferences.
      - 2) Thermostat Programming From Keypad: Instructions on developing setpoints and schedules and adjusting local zone temperatures.
      - 3) Thermostat Operation:
        - a) Identify and explain use of buttons on thermostat face, I.E. 'i' or information button, warmer button, and cooler button.
        - b) Identify and explain buttons under thermostat cover.
        - c) Provide training for Thermostat Palm Program.

**END OF SECTION**

## Page 2 Prebid Meeting Agenda and Information Sheet

Work order number	Project ID 504-7005
Project location 12448 North 5th East, Idaho Falls, Idaho 83401	Project description Replace furnaces for remaining areas.

### Contractors in attendance

### Contractors invited to bid who did not attend

1. CURTIS ELECTRIC, Scott Curtis	1. _____
2. REXBURG P&H KENT JOHNSON	2. _____
3. COMMERCIAL MW GENE HOOMES	3. _____
4. BIS Boiler Inc. <sup>Kyle</sup> Anderson	4. _____
5. Mechan Automation Jake Mehan	5. _____
6. RON L. ORBISON J.F. Kim Gray	6. _____
7. _____	7. _____



# ASBESTOS MANAGEMENT

The information below indicates the location and status of any asbestos containing materials in your building.

Custodians are asked to observe the condition of asbestos containing materials from week to week. At any time asbestos fibers become airborne or deteriorate the Stake PFR and the Area Physical Facilities Representative (APFR) should be notified.

Should repair or remodel work be planned which in it's course will disturb asbestos containing materials. The Area Physical Facilities Office should be notified. (1-800-950-5560)

504-7005

COLTMAN 1, 2  
12475 Lewisville Hwy  
IDAHO FALLS, BONNEVILLE, IDAHO  
Stake/miss: IDAHO FALLS ID E

Sq. Ft.: 10,014 Teaching Sections: 20  
Meetinghouse type: 1 MEETINGHOUSE  
Completed: 77/25 Addition Comp: 77/56

Region: 2 APFR#: 2204 Doug Eddington

\*\*\*\*\*  
PLANS SECTION

Do we have a plan? Source of plan: Condition of plan:  
Have we made and distributed reduced copies:

\*\*\*\*\*  
SURVEY SECTION

Survey Consultant: Snake River Associates  
Name of Surveyor: Jim Farely

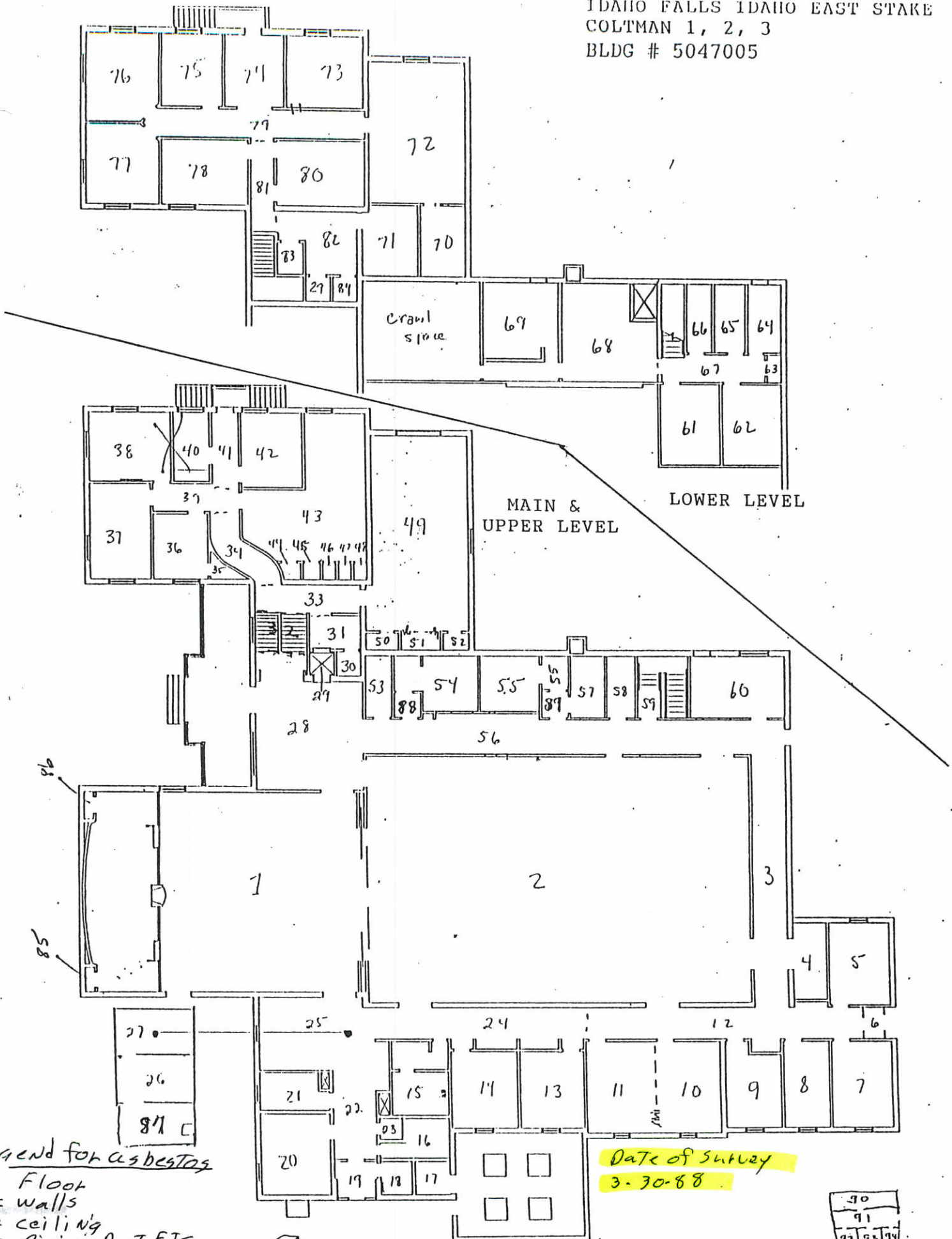
Is this a survey of all the building, friable and non friable? yes  
If no explain:

Survey NTP: 02/02/88 Survey Received: 08/03/88 Number of Samples Taken?: 55 ACM Found?: yes  
Date of Survey: 03/30/88 Date Reviewed: 08/08/88

DESCRIPTION OF ABSBESTOS FOUND	TO FRIABLE?	REMOVE?	WAS REMOVED?
1. FLOOR TILE: THROUGHOUT BUILDING APPROX. 3,700 SFT.	N	Y	Y
2. BOILER RM: BOILER INSULATION APPROX. 130 SFT.	Y	Y	Y
3. PIPE INSULATION APPROX. 12' 7 FTNGS NOT ACM	Y	Y	Y
4. COAL ROOM: PIPE INSULATION APPROX. 80'	Y	Y	Y
5. CRAWLSPACE: PIPE INSULATION APPROX. 220'	Y	Y	Y
6. SOIL CONTAMINATION APPROX. 3,800 SFT.	Y	Y	Y
7.			
8. !!!!!!!!!!!!! CHECK FLR TILE MASTIC !!!!!!!!!!!!!			
9.			
10.			
11.			
12.			
13.			

2004  
 DREVJG  
 ↓  
 Yr Carpet Install  
 — INCAPULATED  
 W/ 2004 CARPET REPC  
 + TIVE ABATEMENT  
 — M DUKER  
 2004





Legend for asbestos  
 F Floor  
 U = walls  
 C = ceiling  
 P = Piping, Ducts, ETC  
 CS = Crawl space

Date of Survey  
 3-30-88

(F) 3700 sq FT of Tile  
 under Carpet Throughout

90
91
92
93
94

P. 01

**ENVIRONMENTAL HAZARDS SERVICES, L.L.C.**

7469 WHITE PINE ROAD - RICHMOND, VA 23237  
804-275-4788 FAX 804-275-4907

ASBESTOS FILE  
Coltman

**BULK ASBESTOS SAMPLE ANALYSIS SUMMARY**

**CLIENT:** Idaho Abatement & Insulation  
P.O. Box 3918  
Idaho Falls, ID 83403

**DATE OF RECEIPT:** 05 NOV 2004  
**DATE OF ANALYSIS:** 08 NOV 2004  
**DATE OF REPORT:** 05 NOV 2004

**CLIENT NUMBER:** 13-2222 D  
**EHS PROJECT #:** 11-04-0701  
**PROJECT:** Coltman Church

RECEIVED  
NOV 08 2004  
IDAHO FALLS FM GROUP  
OTHER MATERIALS 3993

EHS SAMPLE #	CLIENT SAMPLE #/ LABORATORY GROSS DESCRIPTION	% ASBESTOS	OTHER MATERIALS
01A	CC-01(a)-Tile/ Gray Vinyl	6% Chrysotile 6% Total Asbestos	94% Non-Fibrous
01B	CC-01(b)-Mastic/ Black Adhes.	NAD	100% Non-Fibrous
02A	CC-02(a)-Tile/ Green Vinyl	7% Chrysotile 7% Total Asbestos	93% Non-Fibrous
02B	CC-02(b)-Mastic/ Black Adhes.	NAD	100% Non-Fibrous

**QC SAMPLE:** M2-1998-4  
**QC BLANK:** SRM 1866 Fiberglass  
**REPORTING LIMIT:** 1% Asbestos  
**METHOD:** Polarized Light Microscopy, EPA Method 600/R-83/116 \*  
**ANALYST:** Tabitha Jamison

Reviewed By Authorized Signatory: Michael A. Mueller  
Howard Varner, Laboratory Director  
Irma Raszewski, Quality Assurance Coordinator  
David Xu, MS, Senior Chemist  
Feng Jiang, MS, Senior Geologist  
Michael A. Mueller, Quality Assurance Manager





# ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

CLIENT NUMBER: 18-2322 D  
EHS PROJECT #: 11-04-0701  
PROJECT: Coltman Church

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C. California Certification #2319 NY ELAP #11714. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), for enhanced detection capabilities for materials regulated by the EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

\* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

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LEGEND NAD = no asbestos detected  
SCF = suspected ceramic fibers

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