



Fan Coil / VAV Unit Bulletin

Temperature Controls

Burlington Mall

This bulletin is to advise you of the fees and responsibilities associated with the tenant's temperature controls.

Tenant Responsibility:

1. The Tenant will provide their own AHU with CW connections.
2. Unit power is by tenant. Tenant to provide permanent power prior to Sodexo | Roth commissioning.
 - a. A power whip (wires enclosed in some form of flexible protection) from the unit's disconnect or a dedicated circuit from the tenant's breaker panel must be in place prior to installation.
3. Tenant shall provide a 2" x 4" junction box mounted vertical with conduit stubbed to ceiling space for each temperature sensor (installed by division 16). **The location of this box must be the same as the location indicated of the final approved construction drawings. If relocation is necessary, this must be approved by the landlord and a change order must be issued by the tenant before the sensor will be moved.**
4. Tenant shall have ceiling, walls, ductwork complete and electrical power to HVAC equipment.
5. Tenant will manually open chilled water valves 100% before performing final system flushing.
6. CA/Tenant shall provide 72 hour written notice by tenant's contractor to Sodexo | Roth when tenant space is ready for temperature controls installation.
7. Tenant shall provide the following information for equipment purchase:
 - a. Tenant name and space number
 - b. Number FCU/VAV units.
 - c. FCU/VAV Submittals for units to be installed
 - d. GPM per FCU
 - e. Estimated start time.
 - f. Estimated completion date.
 - g. General contractor name and phone number
 - h. Mechanical contractor name and phone number.
8. Fax copy of all completed items to Roth at 330-799-9005 or email to kristina.rowley@sodexo.com.
9. Submit complete payment to Sodexo | Roth in order to initiate equipment order and schedule work. Fax 330-799-9005 or email kristina.rowley@sodexo.com.
10. A **check** is to be issued for the Total Price before Roth proceeds with parts order.
11. The payment must be in the form of a certified check or company check (no personal checks).

Note: If Sodexo | Roth or their subcontractor responds to tenant's request for temperature control installation and the above requirements are not complete or requires partial installation of the control system or any problems are created by other contractors the applicable fees will be billed. See Appendix VI.

Sodexo | Roth Responsibility:

1. Provide Schneider Electric controller in enclosure per unit.
2. Provide Space temperature sensor per unit.
3. Provide Supply Air Temperature Sensor per unit.
4. Provide Mixed Air Temperature Sensor per unit.
5. Provide control transformer.
6. Provide all control cable.

7. Provide chilled water valve.
8. Provide return water temperature sensor for all tenants.
9. All programming.
10. System commissioning (Over the phone via Simon EMS Network).
11. Provide as-built drawing.
12. Coordinate network connection with installing contractor to Landlord's tenant IP network.

Simon Responsibility:

1. Facilitate work between tenant contractor and Sodexo | Roth

EXCLUSIONS:

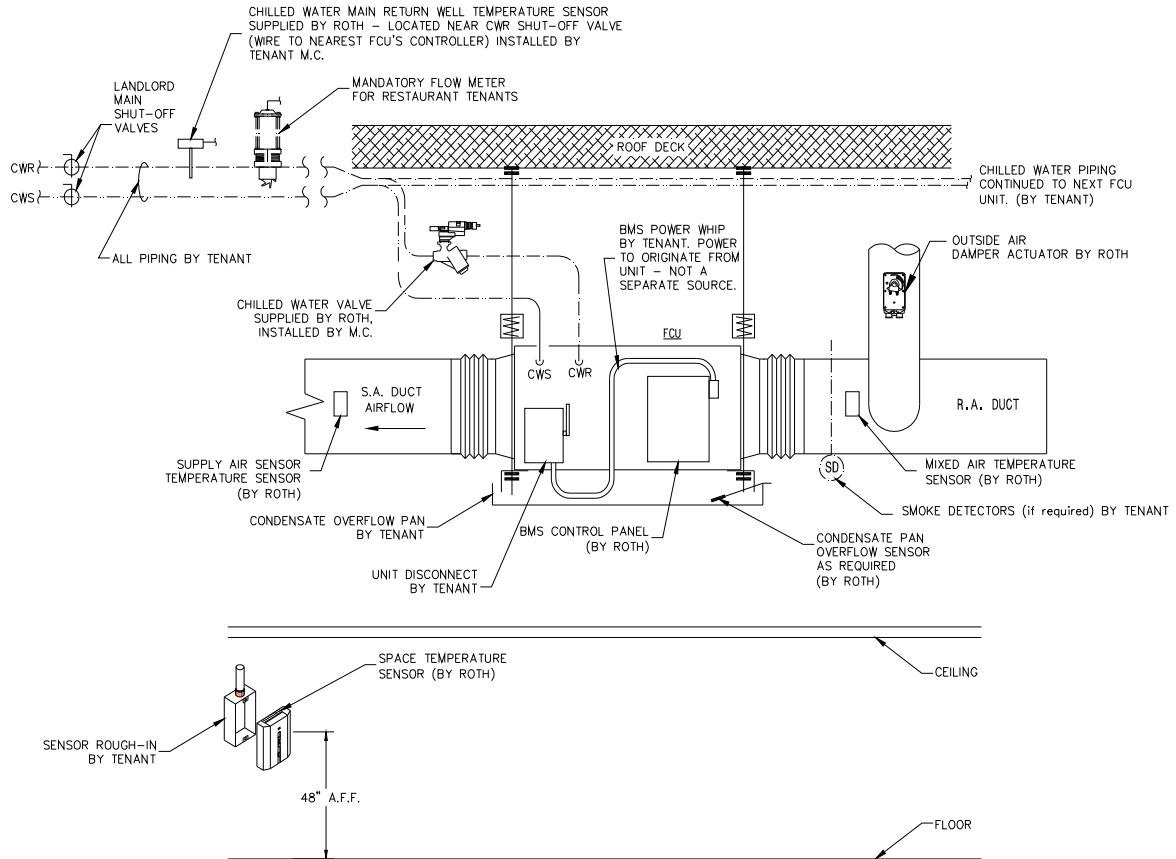
The following items are not included:

1. Installation labor by tenant mechanical/electrical contractor. If required, Sodexo | Roth will quote installation labor on a per tenant basis.
2. Fan Coil Unit/VAV Box supplied by owner
3. Smoke detectors or the installation and/or interlock wiring of smoke detectors
4. Fire Alarm tie-in
5. Installation of Fan Coil Unit
6. Air and water balance (by Simon contractor)
7. Disconnect/Starter for unit
8. After hours labor (All after hours labor will not commence until a signed purchase order has been sent to Sodexo | Roth)
9. Any scope deviations from the final bid set of Tenant Drawings provided to Sodexo | Roth by Tenant Architect or Engineers.

After Grand Opening or Partial Opening, additional fees will be applied.

Appendix I

Typical Unit Layout



See appendix V for installation and supplier responsibilities.

Note:

- NO circuit setters are needed for this project. All Valves are ordered to fit the size of coils and the GPM required for a 16 deg.f. delta.
- NO valves will be installed until the tenant has provided the CA with a system flush report.

Appendix II

Fan-Coil Unit EMS Equipment Specification and Cost Breakdown

Item	Note	Qty	Device	First Unit Cost	Cost Additional per FCU Unit
1	3	1	SmartX RP-C-12A-F-24V controller	\$280/unit	\$280/unit
2	3	1	SmartX Space Sensor	\$50/unit	\$50/unit
3	3	2	Discharge/Mixed Air Temp sensor	\$24/unit	\$24/unit
4	3	1	CHW Return Temp Sensor (1 st unit)	\$50/unit	n/a
5	3	1	Condensate Pan Overflow Switch	\$50/unit	\$50/unit
6	3	1	Enclosure	\$180/unit	\$180/unit
7	1	3	Fan/Heat relays	\$36/unit	\$36/unit
8	3	1	Outside air damper actuator	\$120/unit	\$120/unit
9	3	1	Fan Status CT	\$20/unit	\$20/unit
10	2	500'	Network Cable CAT5e or better	\$100/unit	\$100/unit
11	1	200'	Control Cable: 2 conductor, 18 awg, plenum, stranded	\$25/unit	\$25/unit
12	1	100'	Control Cable: 4 conductor, 18 awg, plenum, stranded	\$25/unit	\$25/unit
13	1		Installation labor (not included)		
14	3		Control engineering labor	\$80/unit	\$65/unit
15	3		Commissioning labor	\$300/unit	\$150/unit
16	3		Programming labor	\$200/unit	\$80/unit
17	3		Panel Labor	\$50/unit	\$50/unit
18	3	1	Chilled water valve	See Appendix V	See Appendix V

Notes:

1. Tenant may purchase from other vendor.
2. If CAT5e communication cable is not purchased through Sodexo|Roth, contractor must follow cable specification. Please have Sodexo|Roth, approve cable prior to purchase.
3. Item supplied by Sodexo|Roth – No Exception

Appendix III

VAV/FPB EMS Equipment Specification and Cost Breakdown

Item	Note	Qty	Device	First Unit Cost	Cost Additional per FCU Unit
1	3	1	SmartX MP-V-7 controller	\$280/unit	\$280/unit
2	3	1	SmartX Space Sensor	\$50/unit	\$50/unit
3	3	1	Discharge sensor	\$24/unit	\$24/unit
4	1	3	Fan/Heat relays	\$36/unit	\$36/unit
5	3	1	Fan Status CT	\$20/unit	\$20/unit
6	2	300'	Network Cable CAT5e or better	\$60/unit	\$60/unit
7	1	25'	Control Cable: 2 conductor, 18 awg, plenum, stranded	\$10/unit	\$10/unit
8	1		Installation labor (not included)		
9	3		Control engineering labor	\$80/unit	\$65/unit
10	3		Commissioning labor	\$100/unit	\$50/unit
11	3		Programming labor	\$100/unit	\$50/unit

Notes:

1. Tenant may purchase from other vendor.
2. If CAT5e communication cable is not purchased through Sodexo|Roth, contractor must follow cable specification. Please have Sodexo|Roth, approve cable prior to purchase.
3. Item supplied by Sodexo|Roth – No Exception

Appendix IV

Valve Pricing Schedule

Model	GPM	Valve Size	Price
P2050S-165+LRX24-EP	1.65	½"	\$306.00
P2050S-020+LRX24-EP	2.0	½"	\$360.00
P2050S-025+LRX24-EP	2.5	½"	\$360.00
P2050S-030+LRX24-EP	3.0	½"	\$360.00
P2050S-035+LRX24-EP	3.5	½"	\$360.00
P2050S-040+LRX24-EP	4.0	½"	\$360.00
P2050S-045+LRX24-EP	4.5	½"	\$360.00
P2050S-050+LRX24-EP	5.0	½"	\$360.00
P2050S-055+LRX24-EP	5.5	½"	\$360.00
P2075S-060+LRX24-EP	6.0	¾"	\$365.00
P2075S-065+LRX24-EP	6.5	¾"	\$365.00
P2075S-070+LRX24-EP	7.0	¾"	\$365.00
P2075S-075+LRX24-EP	7.5	¾"	\$365.00
P2075S-080+LRX24-EP	8.0	¾"	\$365.00
P2075S-085+LRX24-EP	8.5	¾"	\$365.00
P2075S-090+LRX24-EP	9.0	¾"	\$365.00
P2075S-095+LRX24-EP	9.5	¾"	\$365.00
P2075S-103+LRX24-EP	10.3	¾"	\$365.00
P2100S-111+LRX24-EP	11.1	1"	\$375.00
P2100S-012+LRX24-EP	12.0	1"	\$375.00
P2100S-131+LRX24-EP	13.1	1"	\$375.00
P2100S-142+LRX24-EP	14.2	1"	\$375.00
P2100S-151+LRX24-EP	15.1	1"	\$375.00
P2100S-016+LRX24-EP	16.0	1"	\$375.00
P2100S-169+LRX24-EP	16.9	1"	\$375.00
P2100S-182+LRX24-EP	18.2	1"	\$375.00
P2125S-018+NRX24-EP	18.0	1-¼"	\$660.00
P2125S-191+NRX24-EP	19.1	1-¼"	\$660.00
P2125S-020+NRX24-EP	20.0	1-¼"	\$660.00
P2125S-211+NRX24-EP	21.1	1-¼"	\$660.00
P2125S-222+NRX24-EP	22.2	1-¼"	\$660.00
P2125S-242+NRX24-EP	24.2	1-¼"	\$660.00
P2125S-251+NRX24-EP	25.1	1-¼"	\$660.00
P2125S-262+NRX24-EP	26.2	1-¼"	\$660.00
P2125S-285+NRX24-EP	28.5	1-¼"	\$660.00

Appendix IV (Cont'd)

Model	GPM	Valve Size	Price
P2150S-281+NRX24-EP	28.1	1-½"	\$707.00
P2150S-293+NRX24-EP	29.3	1-½"	\$707.00
P2150S-321+NRX24-EP	32.1	1-½"	\$707.00
P2150S-341+NRX24-EP	34.1	1-½"	\$707.00
P2150S-352+NRX24-EP	35.2	1-½"	\$707.00
P2150S-372+NRX24-EP	37.2	1-½"	\$707.00
P2200S-327+AKRX24-EP	32.7	2"	\$978.00
P2200S-342+AKRX24-EP	34.2	2"	\$978.00
P2200S-403+AKRX24-EP	40.3	2"	\$978.00
P2200S-441+AKRX24-EP	44.1	2"	\$978.00
P2200S-479+AKRX24-EP	47.9	2"	\$978.00
P2200S-525+AKRX24-EP	52.5	2"	\$978.00
P2200S-563+AKRX24-EP	56.3	2"	\$978.00
P2200S-601+AKRX24-EP	60.1	2"	\$978.00
P2200S-654+AKRX24-EP	65.4	2"	\$978.00
P2200S-761+AKRX24-EP	76.1	2"	\$978.00
P2200S-800+AKRX24-EP	80.0	2"	\$978.00
P2200S-850+AKRX24-EP	85.0	2"	\$978.00
P2200S-900+AKRX24-EP	90.0	2"	\$978.00
P2200S-950+AKRX24-EP	95.0	2"	\$978.00
P2200S-1000+AKRX24-EP	100.0	2"	\$978.00

Appendix V

Responsibility Matrix

Task Description	Tenant Mech. Furnish	Tenant Mech. Install	Roth DDC Furnish	Roth Phone Commiss.	Tenant Elect. Furnish	Tenant Elect. Install
HVAC Controls						
Hardware (Control Panels)		x	x			
PCCIV 2 way CHW Control Valve		x	x			
Conduits and back box for T-Stat/Sensor					x	x
BAS Network cabling			x			x
120v/240v/277v/480v to Control Panel					x	x
AHUs	x	x				
Duct Heater	x	x				
Minimum OA Damper provided	x	x				
All Other Control Dampers or VAV/FPB's	x	x				
Control Valves		x	x			
Starters and or Contactors	x				x	x
Test and Balance	x					
Terminal Boxes VAV / FPB	x	x				
DDC Controller		x	x			
Flow Transmitter		x	x			
Flow Cross	x	x				
120v/240v/277v/480v to Control Panel					x	x
Conduits and back box for T-Stat/Sensor					x	x
Test and Balance	x	x				
Fan Coil Units						
Conduits and back box for T-Stat/Sensor					x	x
120v/240v/277v/480v to Control Panel					x	x
CHW Control Valves	x	x	x			
Test and Balance	x					
Fire Alarm System / Smoke Detectors						
Hardware - Smoke Duct Detectors	x	x				
Addressable equipment shut down relays					x	x
Power / Shutdown Cabling					x	x
Remote Reset	x					x
Commissioning	x	x	x	x	x	x

Appendix VI

Potential Construction Change Order Items

Description of problem	Cost/event
Transformer replaced due to Tenant improper Power Wiring	\$140.00
Replace Schneider Electric Controllers	\$350.00
Rewire Unit contactors	\$75.00
Rewire Unit Factory Controls due to Tenant altering	\$75.00
Remobilization to site after the Initial Installation Checkout *	\$500.00
Replace the Rewired Damage Cabling (Comm or other)	\$90.00
Rework Factory Mounted Dampers not to Simon Spec	\$65.00
Power Control Box (Item #1 Bulletin #2 of Simon TC Doc.)	\$125.00
Adding Space Sensor if initial rough in was not performed	\$90.00
Premium Labor	\$87.00
Lift charge if not provided by Tenant G.C.	\$125.00

* Not a per unit charge See Change Order below.

Roth contact information:

Sodexo | Roth
Kristina Rowley
3847 Crum Road
Youngstown, Ohio 44515
Toll Free: 800-872-7684
Office: 330-270-4905
Fax: 330-799-9005

Appendix VII

Sequence of Events

1. Elec. rough-in temperature sensor conduits prior to sheetrock and stub-out above ceiling.
2. Mechanical rough-in of ductwork
3. Control rough-in of communication and stat wiring
4. Mechanical equipment installation
5. Mechanical complete piping, ductwork, smoke detectors, & drain pan.
6. Control power installed adjacent to controller location, unit and duct heater power completed and smoke detectors wired to unit for shutdown.
7. Prior to ceiling grid, the control panel, unit sensors, dampers and valves should all be installed.
8. Complete mechanical start-up – fan rotation, etc. are completed by unit manufacturer or certified mechanical contractor.

I have read this bulletin and understand all of its contents

General Contractor - _____

Representative - _____

Mechanical Contractor - _____

Representative - _____

Electrical Contractor - _____

Representative - _____



CHANGE ORDER

Request

3847 Crum Rd.

Youngstown, Ohio 44515
Phone: (330) 793-5571
Fax: (330) 799-3369

No

Page No. 1 of 1 Pages

C.O. Request Submitted To:		Phone:	Date:
Street:		Job Name:	
City, State and Zip Code:		Job Location:	
Contact:	Date of Plans:		Job Phone:

We hereby propose the furnished material and labor necessary for the completion of:

Total \$0.00

	QTY.	Unit Cost	
Tax			inc.
Shipping (Overnight)			inc.
Total			\$0.00

WE PROPOSE hereby the furnished material and labor - complete in accordance with above specifications, for the sum of:

Payments to be made as follows:

All material is guaranteed to be completed in a substantial workmanlike manner according to specifications submitted, per standard practices. Any alterations or deviations from above specifications involving extra cost will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature _____

Kristina Rowley

Note: This proposal may be withdrawn by us if not accepted within 30 days.

ACCEPTANCE OF CHANGE ORDER The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Date of Acceptance: _____ Signature _____