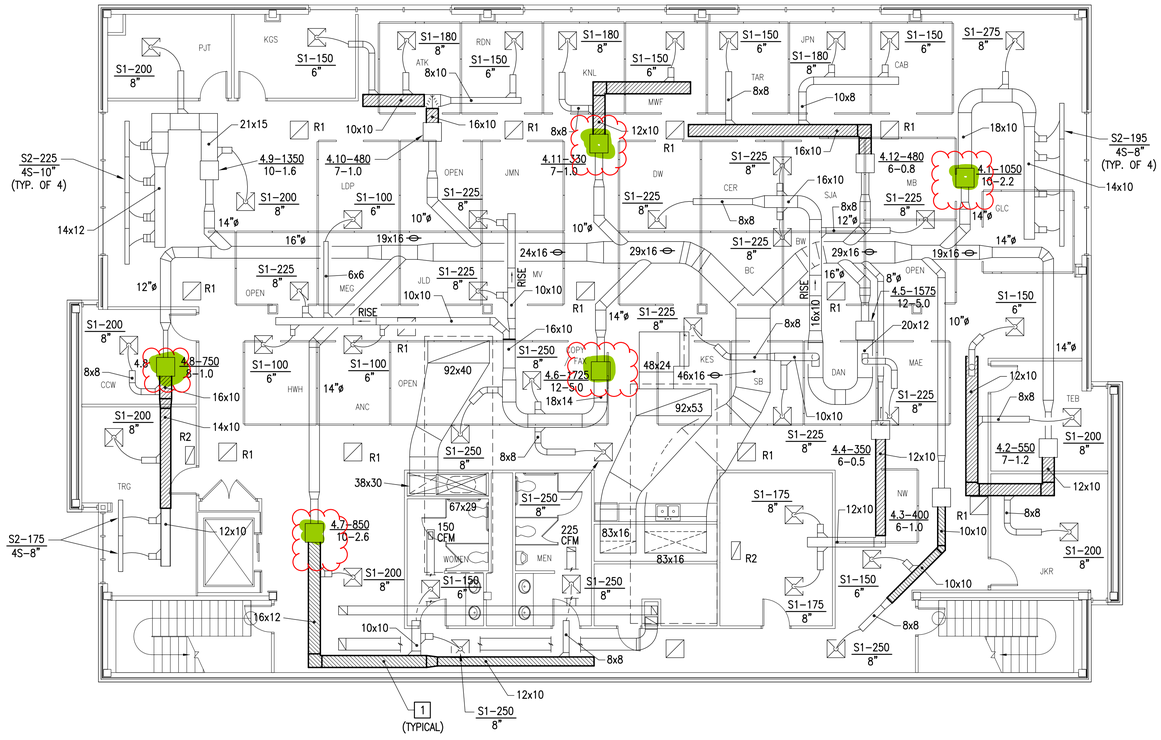


N

FOURTH FLOOR PLAN – NEW WORK – ALT. BID #1

SCALE 1/8"=1'-0"

4 0 8 16 FEET

KEYED NOTES (ALT. BID #1):

(MC) 1 PROVIDE NEW SHEET METAL DUCTWORK (MIN. 24G CONSTRUCTION) INCLUDING EXTERNAL DUCTWRAP FOR NEW LOW PRESSURE DUCTS SHOWN SHADED.

AIR DEVICE
24x24 DIFFUSERS

MARK – S3-200 8" – CFM
NECK SIZE

NOTE: FOR 24x24 AIR DEVICES PROVIDE 4-WAY PATTERN UNLESS OTHERWISE SPECIFIED.

AIR DEVICE
SLOT DIFFUSERS

MARK – S3-200 4S-8" – CFM
OF SLOTS FOR LINEAR DIFFUSERS
NECK SIZE

HW REHEAT COIL
VAV BOX #
BOX SIZE
4.1-750 9-2.5
INDICATES COIL WITH 3-WAY VALVE. COILS WITHOUT '*' SHALL HAVE 2-WAY VALVE
CFM
HW GPM

REVISION | DATE

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886

Hanson No. 02S1363
Filename M-104-NEW-ALT.DWG
Scale 1/8 = 1'-0"
Date 11/02/03

LAYOUT	HWH	8/27/03
DRAWN	HWH	8/29/03
REVIEWED	ATK	xx/xx/xx

Phone: (217) 788-2450
Fax: (217) 788-2503
www.hanson-inc.com
Offices Nationwide

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886

FOURTH FLOOR VENTILATION
NEW WORK - ALT. BID #1

HVAC UPGRADE
HANSON OFFICE BUILDING
SPRINGFIELD, ILLINOIS

M4.2VA

- of XX sheets

JAN 15, 2013 11:41 AM KOCHM0984
I:\HE-BLDG\SPRINGFIELD ORIGINAL DRAWINGS 1974, 1980, 1990, 2002, 2003 & 2007\CORPPROC0000 -- 2003 -- 01-11-13\HVAC UPGRADE 4-STORY

VAV BOX SCHEDULE (FIRST FLOOR) – FURNISHED BY TC, INSTALLED BY MC

MARK		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10
SERVICE		DMB, EAK, BAS, AJK CJC, DAB, JCP, CMB	EAST PLAN AREA MES	ERW, TEO, JAH LJD, JCF, DRH	BREAK ROOM CMP	SURVEY STORAGE	REST ROOMS CORRIDOR	RIN	LAB, RIN	ENVIROMENTAL STORAGE	LAB
INLET SIZE (IN.) (BASED ON TITUS)		8	8	8	8	4	6	4	8	4	7
MAX. CFM		800	660	700	800	180	450	150	750	175	500
MIN. CFM		200	150	150	150	–	450	30	150	30	100
MAX. AIR PRESSURE DROP		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
WATER REHEAT COIL	HEATING CFM	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	MAX. WPD. FT.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	TOTAL MBH	–	–	–	–	–	–	–	–	–	–
	GPM	1.1	1.6	1.2	0.4	0.3	1.2	0.3	1.0	0.3	0.5
	EAT	55	55	55	55	55	55	55	55	55	55
ACCESSORIES		1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4
REMARKS		1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 3, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4

VAV BOX SCHEDULE (SECOND FLOOR)–FURN. BY TC, INSTALLED BY MC

MARK		2.1	2.2	2.3
SERVICE		EAST CONF. BWM	RHG, JHW	CORR
INLET SIZE (IN.) (BASED ON TITUS)		9	5	7
MAX. CFM		880	300	500
MIN. CFM		225	60	100
MAX. AIR PRESSURE DROP		0.6	0.6	0.6
WATER REHEAT COIL	HEATING CFM	N.A.	N.A.	N.A.
	MAX. WPD. FT.	2.0	2.0	2.0
	TOTAL MBH	–	–	–
	GPM	2.0	0.5	0.4
	EAT	55	55	55
ACCESSORIES		1 THRU 4	1 THRU 4	1 THRU 4
REMARKS		1, 2, 4	1, 2, 4	1, 2, 4

VAV BOX SCHEDULE (SECOND FLOOR) – FURNISHED BY TC, INSTALLED BY MC

MARK		2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	2.12	2.13	2.14	2.15	2.16
SERVICE		CONF.	JEO, SEP, CCC, MDR DTS, BKB, SRJ, JMB	LLP, BRB, JAP, LMR JXH, JLW, BJB, JLB	ELEV., LOBBY REST ROOMS	WEST ENTRANCE	JWM, GCR	WEST CONF. MTM	SKM, CAH, JTB	TMF, JAD, DEF	GWR, KDM, LDK	KITCHEN	CAH	JAG, MLK, JAP, BAK, DPE, TXW, KAB
INLET SIZE (IN.) (BASED ON TITUS)		6	8	8	7	5	6	10	6	6	6	4	4	8
MAX. CFM		350	750	750	500	275	350	1075	450	450	450	150	175	750
MIN. CFM		50	200	200	350	50	60	250	100	100	100	50	30	175
MAX. AIR PRESSURE DROP		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
WATER REHEAT COIL	HEATING CFM	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	MAX. WPD. FT.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	TOTAL MBH	–	–	–	–	–	–	–	–	–	–	–	–	–
	GPM	0.3	1.0	1.0	1.2	0.8	0.8	1.5	1.0	1.0	1.0	0.3	0.4	1.0
	EAT	55	55	55	55	55	55	55	55	55	55	55	55	55
ACCESSORIES		1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4
REMARKS		1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 3, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4

VAV BOX SCHEDULE (THIRD FLOOR) – FURNISHED BY TC, INSTALLED BY MC

MARK		3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	3.10	3.11	3.12	3.13
SERVICE		DED, ASY, BDC	DLK, JRK	CORR.	CONF.	EAST CENTER CORE	WEST CENTER CORE	ELEV, CORR. REST ROOMS	TKL, BS	WEST PLAN AREA DAR	DDO, DLD, LKG	JPK	RGC, NJM	DJW
INLET SIZE (IN.) (BASED ON TITUS)		9	6	7	6	10	10	6	8	10	6	6	6	5
MAX. CFM		880	350	500	350	975	1175	450	675	1075	425	300	450	175
MIN. CFM		225	75	100	50	300	350	450	150	250	100	75	100	40
MAX. AIR PRESSURE DROP		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
WATER REHEAT COIL	HEATING CFM	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	MAX. WPD. FT.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	TOTAL MBH	–	–	–	–	–	–	–	–	–	–	–	–	–
	GPM	2.0	0.9	1.0	0.5	1.3	1.5	1.3	1.0	1.5	1.0	0.7	1.0	0.5
	EAT	55	55	55	55	55	55	55	55	55	55	55	55	55
ACCESSORIES		1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4
REMARKS		1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 3, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4

VAV BOX SCHEDULE (FOURTH FLOOR) – FURNISHED BY TC, INSTALLED BY MC

MARK		4–1	4–2	4–3	4–4	4–5	4–6	4–7	4–8	4–9	4–10	4–11	4–12
SERVICE		GLC, ID REF	JKR, TEB, EAST PLAN AREA	NTW, CORR.	CONF. ROOM	EAST CENTER CORE	WEST CENTER CORE	ELEV., REST RM'S CORR.	CCW, TRG	WEST PLAN AREA PJT, CATALOGS	KGS, ATK, RDN	KNL, MWF	TAR, JPN, CAB,
INLET SIZE (IN.) (BASED ON TITUS)		10	7	6	6	12	12	9	8	10	7	6	7
MAX. CFM		1050	550	400	350	1575	1725	850	750	1350	480	330	480
MIN. CFM		250	125	80	50	300	350	450	100	250	120	60	120
MAX. AIR PRESSURE DROP		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
WATER REHEAT COIL	HEATING CFM	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	MAX. WPD. FT.	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	TOTAL MBH	–	–	–	–	–	–	–	–	–	–	–	–
	GPM	2.2	1.2	1.0	0.5	5.0	5.0	2.1	1.0	1.6	1.0	0.8	1.0
	EAT	55	55	55	55	55	55	55	55	55	55	55	55
ACCESSORIES		1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4	1 THRU 4
REMARKS		1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 3, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4	1, 2, 4

ACCESSORIES (TYP.)

1. FACTORY INSTALLED TRANSFORMER.
2. NEMA 1 CONTROL ENCLOSURE.
3. STERI–LOC LINER.
4. HW COIL ACCESS DOOR (NOT LOCATED ON SAME SIDE AS COIL CONNECTION).

REMARKS (TYP.)

1. FACTORY INSTALLED VAV CONTROLLER AND DAMPER ACTUATOR.
2. LH/RH COIL CONNECTION SHALL BE COORDINATED WITH CONTRACTOR. TC IS RESPONSIBLE FOR FIELD DETERMINATION OF EXISTING LH/RH CONNECTIONS.
3. MINIMUM CFM (FULL DESIGN FLOW) IS DURING OCCUPIED PERIODS ONLY. ZERO MINIMUM OTHERWISE.
4. ACCEPTABLE MANUFACTURERS: TITUS, KRUGER, E H PRICE, TRANE, ANEMOSTAT.

REVISION | DATE

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Phone: (217) 788-2450
Fax: (217) 788-2503
www.hanson-inc.com
Offices Nationwide

Hanson No. 02S1363
Filename M-501.DWG
Scale
Date 11/02/03

LAYOUT	HWH	8/27/03	
DRAWN	HWH	8/29/03	
REVIEWED	ATK	xx/xx/xx	

HANSON
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Phone: (217) 788-2450
Fax: (217) 788-2503
www.hanson-inc.com
Offices Nationwide

SCHEDULES

HVAC UPGRADE
HANSON OFFICE BUILDING
SPRINGFIELD, ILLINOIS

M5.1
- of XX sheets

AIR DEVICE SCHEDULE (BY MC)

MARK	S1	S2	R1	R2	E1
SERVICE	SUPPLY	SUPPLY	RETURN	RETURN	EXHAUST
MODEL # (BASED ON TITUS)	TMS–AA	MP–38	PAR–AA	PAR–AA	50F
MAX. APD (IN. WG)	0.1	0.1	0.1	0.1	0.1
THROW (FT/50 FPM)	–	–	–	–	–
MAXIMUM NC	25	25	25	25	25
ADAPTER SIZE, IN	–	–	–	–	–
NOMINAL NECK SIZE, IN	SEE PLANS	SEE PLANS	22x22	10x22	SEE PLANS
MODULE SIZE, IN	24x24	48"	24x24	12x24	24x24
PATTERN	–	SLOT	–	–	–
FRAME	LAY–IN	LAY–IN	LAY–IN	LAY–IN	LAY–IN
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE
MATERIAL	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
ACCESSORIES	1	2 THRU 5	–	–	1
REMARKS	–	1	3	3	–

ACCESSORIES:

1. OPPOSED BLADE DAMPER AND INSULATION BLANKET ON BACKPAN FOR SUPPLY AIR DEVICES.
2. INSULATED PLENUM WITH INLET DAMPER.
3. END CAPS.
4. PATTERN CONTROLLER.
5. HANGER BRACKETS FOR SUSPENSION.

REMARKS:

1. PLENUM HEIGHT SHALL BE APPROX. 11 INCHES. INLET CONNECTION TO THE PLENUM SHALL BE AS HIGH AS POSSIBLE TO PREVENT CONFLICT WITH ADJACENT LIGHT FIXTURES.
2. PROVIDE ENVIROTHANE PROTECTIVE COATING FOR AIR DEVICES SPECIFICALLY IDENTIFIED.
3. PROVIDE RECTANGULAR DUCT WITH OPEN NECK AT ALL RETURN AIR DIVICES.

GENERAL NOTES (HEATING):

(MC, TC) 1. CONTRACTOR SHALL INCLUDE NECESSARY AND ASSOCIATED COSTS TOWARDS ACCOMPLISHING THE SCOPE IDENTIFIED ON THE DRAWINGS.

(MC, TC) 2. COORDINATE LOCATION OF VAV'S, CONTROL VALVES, ETC. FOR EASE OF ACCESSIBILITY DURING MAINTENANCE.

(MC) 3. ENTIRE HYDRONIC SYSTEM SHALL BE MAINTAINED DUST AND GRIT FREE DURING THE CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OF ALL COMPONENTS TO A/E SATISFACTION PRIOR TO START–UP.

(TC) 4. PROVIDE INSULATED BASE FOR SENSORS INSTALLED ON EXTERIOR WALL AND WHERE SPECIFICALLY INDICATED.

GENERAL NOTES (TEMPERATURE CONTROLS): (TC)

1. LOCATION AND TYPE OF ALL SENSORS SHALL BE CAREFULLY REVIEWED SO AS TO GET THE BEST REPRESENTATION FOR THE TASK IT HAS BEEN SET TO ACCOMPLISH.
2. CONTRACTOR SHALL INCLUDE COST FOR GRAPHICS AND PROGRAMMING OF ALL SYSTEMS WHICH WILL BE CONTROLLED BY BAS.
3. CONTRACTOR SHALL PROVIDE ALL LOW VOLTAGE WIRING REQUIRED FROM EMS PANELS TO SENSORS AND EQUIPMENT. WIRING INSTALLED ABOVE 8'–0" SHALL BE BUNDLED AND TIE–WRAPPED AND SUPPORTED FROM STRUCTURAL MEMBERS. EXPOSED WIRING IN OCCUPIED AREAS SHALL BE PROVIDED IN CONCEALED CONDUIT (SIZED AS REQUIRED). ALL WIRING IN MECH. ROOMS SHALL BE PROVIDED IN CONDUIT.
4. EMS PANELS SHALL BE MOUNTED TO FLOOR MOUNTED STRUT STANTION ASSEMBLIES OR WALL MOUNTED TO STRUT SUPPORTS. BOTTOM OF PANELS SHALL BE APPROXIMATELY 48" A.F.F. STRUTS FOR WALL MOUNTED PANELS SHALL BE SECURED TO CONCRETE OR MASONRY WITH EXPANSION ANCHORS OR SECURED TO EXISTING WALL FRAMING AS REQUIRED. STANTION ASSEMBLIES SHALL HAVE ADEQUATE BRACING AND BE PROVIDED WITH BASE PLATES ANCHORED TO CONCRETE FLOOR. STRUT SUPPORTS SHALL BE SIZED AND DESIGNED FOR SAFE AND RIGID SUPPORT OF PANELS.
5. PROVIDE ONE OUTDOOR AIR TEMP. SENSOR AND HUMIDITY SENSOR ON NORTH SIDE OF THE BUILDING. SHIELD SENSORS FROM SOLAR RADIATION EFFECTS AND WEATHER ELEMENTS WITHOUT AFFECTING AIR CIRCULATION.
6. TYPE AND SIZE OF SENSOR WIRE AND COMMUNICATION/NETWORK CABLE SHALL BE AS PER EMS MANUFACRURERS RECOMMENDATIONS. COMMUNICATION/NETWORK CABLES SHALL BE TWISTED PAIR OR COAX AS PER EMS MANUFACTURERS RECOMMENDATIONS. USE PLENUM RATED CABLES.
7. TC CONTRACTOR SHALL PROVIDE ELECTRONIC REPEATERS/AMPLIFIERS AS RECOMMENDED BY BAS MANUFACTURER. CONTRACTOR SHALL BE RESPONSIBLE FOR POWER AND COMMUNICATIONS WIRING AT REPEATERS (IF REQUIRED).
8. ROOM SENSORS FOR SPACES SHALL BE PROVIDED WITH SENSING ELEMENT, SET POINT ADJUSTMENT, AND DIGITAL READ–OUT. SENSOR WITH SENSING ELEMENT ONLY SHALL BE FLAT PLATE STAINLESS STEEL TYPE. PROVIDE SENSORS WITH OVERRIDE SWITCH WHERE SHOWN. EACH SPACE TEMP SENSOR SHALL BE A SEPARATE BAS INPUT.
9. THE FOLLOWING OUTLINES THE SCOPE FOR COORDINATION/DIVISION OF WORK BETWEEN ELECTRICAL (EC) AND MECHANICAL CONTRACTOR. ALL ELECTRICAL WORK IDENTIFIED AS PERFORMED BY EC SHALL BE THE SCOPE AND/OR RESPONSIBILITY OF THE TEMP. CONTROLS CONTRACTOR.

   A. POWER WIRING FROM DEDICATED CIRCUITS TO ALL VAV BOXES AND OTHER BAS PANELS INCLUDING TERMINATION SHALL BE THE SCOPE OF TC. A 120/24V TRANSFORMER SHALL BE FACTORY FURNISHED AND INSTALLED BY VAV BOX MANUFACTURER. SEE FLOOR SHEETS FOR LOCATION OF VAV BOXES. TC SHALL ASSUME THAT SPARE CIRCUITS ARE AVAILABLE AT SW CORNER ON EACH FLOOR.

   B. OUTLET BOX WITH STUB AND CONDUIT FOR ROOM SENSOR WIRING SHALL BE PROVIDED BY TC. ALL LOW VOLTAGE CONTROL WIRING AND CONDUIT (WHEREVER NECESSARY) SHALL BE THE SCOPE OF TC. INSTALL (TOP OF) SENSOR AT SAME HEIGHT AS LIGHT SWITCH.

   C. TWISTED PAIR/COAX/FIBER (INCLUDING CONDUIT WHEREVER NECESSARY) FOR COMMUNICATION BETWEEN CONTROLLERS SHALL BE THE SCOPE OF THE TC.

   D. ALL INPUT/OUTPUT CONTROL WIRING (INCLUDING NECESSARY CONDUIT) FROM BAS PANELS OR TERMINAL CONTROLLERS TO RESPECTIVE I/O DEVICES SHALL BE THE SCOPE OF TC. ALL I/O DEVICES (EXCEPT SMOKE DETECTORS) SHALL BE PROVIDED BY TC.

   E. TERMINAL CONTROLERS FOR EXISTING UNIT HEATERS AND CABINET UNIT HEATERS SHALL BE PROVIDED WITH 120/24TRANSFORMER BY TC. ELECTRICAL CONTRACTOR (OR TC) SHALL PROVIDE DEDICATED POWER SIMILAR TO VAV CONTROLLERS.

(TC, MC) 10. PIPING ACCESSORIES SUCH AS HW/CHW TEMP. SENSORS, DIFFERENTIAL PRESSURE SWITCHES, MOTORIZED CONTROL VALVES, ETC. SHALL BE FURNISHED BY TC AND INSTALLED BY MC.

11. BAS SHALL BE LIMITED TO INVENSYS, ANDOVER, AUTOMATED LOGIC AND TRANE.

GENERAL NOTES (VENTILATION):

(MC) 1. PROVIDE BALANCING DAMPERS AT ALL BRANCH TAKE–OFF'S AND OTHER LOCATIONS FOR A BALANCEABLE AIR DISTRIBUTION. SUCH DAMPERS SHALL BE PROVIDED IRRESPECTIVE OF WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE DRAWINGS. PROVIDE SPLITTER DAMPERS AT TEES AND TURNING VANES AT ELBOWS.

(MC) 2. NEW SUPPLY DUCT JOINTS SHALL BE CONSTRUCTED USING DUCTMATE, NEXUS, OR PYRAMID LOC DUCT CONNECTION. ALL NEW DUCTWORK SHALL BE MINIMUM 24G CONSTRUCTION.

(MC) 3. COORDINATE LOCATION OF VAV'S, ETC. FOR EASE OF ACCESSIBILITY.

(MC) 4. WHENEVER FEASIBLE, PROVIDE MINIMUM 6'–0" LENGTH OF DUCT DOWNSTREAM OF REHEAT COIL BEFORE TAKE–OFF'S/TEE'S.

(MC) 5. ENTIRE AIR DISTRIBUTION SYSTEM INCLUDING SUPPLY/RETURN/EXHAUST DUCTWORK, GRILLES, DIFFUSERS, AND VAV BOXES, SHALL BE MAINTAINED DUST AND GRIT FREE DURING CONSTRUCTION PERIOD. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OF ALL COMPONENTS TO A/E SATISFACTION PRIOR TO STARTUP OF THE SYSTEM.

(MC, TC) 6. PIPING AND DUCT INSTALLATION HEIGHTS WHENEVER PROVIDED ON THE DRAWINGS ARE INTENDED FOR GUIDANCE PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR SHOP DRAWINGS, COORDINATION AND PROPER INSTALLATION OF SYSTEM.

(MC) 7. DUCTWORK ARRANGEMENT SHOWN ON DRAWINGS HAVE BEEN DESIGNED TO MINIMIZE NOISE IN THE SYSTEM. ALL TAKE–OFF'S SHALL BE EXTENDED PLENUM. ALL SIZE CHANGES SHALL BE WITH GRADUAL TRANSITION. DIFFUSERS SHALL BE SIZED FOR MAX. NC OF 25. ALL ELBOWS SHALL BE OF RADIUS TYPE WITH TURNING VANES. NO SQUARE ELBOWS SHALL BE ALLOWED UNLESS APPROVED BY ENGINEER.

(MC) 8. NEW SUPPLY DUCTS SHALL BE INSULATED WITH 1.5" THICK. 1.5 PCF DENSITY DUCTWRAP.

(TC) 9. CONTRACTOR SHALL PROVIDE ID STICKERS ON CEILING TILES TO INDICATE OVERHEAD VAV BOX. ALL ROOM THERMOSTATS/SENSORS SHALL ALSO BE LABELED TO SPECIFICALLY IDENTIFY WITH VAV BOX, FINTUBE, CABINET UNIT HEATER, ETC.

(MC, TC) 10. CONTRACTOR SHALL BE REQUIRED TO COMPLETE ONE FLOOR BEFORE PROCEEDING TO THE NEXT.

(MC) 11. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASURING EXACT DIMENSIONS AND LOCATIONS OF SUPPLY AND RETURN DUCTS.

(MC, TC) 12. REMOVAL AND REPLACEMENT OF CEILING TILES AND OTHER CEILING MOUNTED DEVICES (AS REQUIRED) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

(MC, TC) 13. ALL NEW VAV BOXES, DUCTWORK AND AIR DEVICES ARE SHOWN IN BOLD. CONTRACTOR SHALL BE RESPONSIBLE FOR DUCT TRANSITIONS AT INLET AND OUTLET OF VAV BOXES.

(MC) 14. SHADED RETURN AIR DEVICES SHALL BE PROVIDED WITH RETURN DUCT ELBOW AS SHOWN ON DETAIL SHEET.

(MC) 15. TESTING AND BALANCING SHALL BE LIMITED TO SUPPLY AIR DISTRIBUTION, REST ROOM EXHAUST SYSTEM AND HOT WATER HEATING SYSTEM.

SPECIAL NOTES (MC, TC):

1. CONTRACTOR SHALL BE ALLOWED THREE WORKING WEEKS TOWARDS DOWNTIME FOR EACH RTU. THUS, ALL VAV BOXES INCLUDING RH COIL CONNECTION SHALL BE PERFORMED DURING THIS PERIOD. PERIMETER HEATING SYSTEM SHALL BE KEPT FUNCTIONAL DURING THIS PERIOD. INSTALLATION OF DOWNSTREAM LOW PRESSURE DUCTWORK AND AIR DEVICES CAN BE INSTALLED WITH RTU IN OPERATION. ALL WORK RELATIVE TO ONE RTU SHALL BE COMPLETED BEFORE PROCEEDING TO NEXT. NOTE THAT EACH RTU SERVES TWO FLOORS.
2. TOTAL CONTRACT PERIOD UNDER BASE BID SHALL BE 14 WEEKS TO SUBSTANTIAL COMPLETION AND ANOTHER 1 WEEK FOR ADDRESSING PUNCH LIST ITEMS.
3. LINE ITEM BREAKDOWN (FOR BASE BID) REQUESTED ON BID FORM IS FOR OWNER'S ACCOUNTING PURPOSES ONLY. IT IS NOT INTENDED TO LIMIT THE SCOPE OF WORK.
4. IF ALTERNATE BID #1 IS ACCEPTED, DOWNTIME FOR EACH RTU SHALL BE EXTENDED TO FOUR WEEKS. ALSO, THE CONTRACT PERIOD SHALL BE EXTENDED TO 20 WEEKS FOR SUBSTANTIAL COMPLETION AND ANOTHER 1 WEEK FOR ADDRESSING PUNCH LIST ITEMS.
5. UNDER BASE BID PROVIDE TWO YEAR PARTS AND WARRANTY FOR VAV BOXES, CONTROL VALVES AND OTHER COMPONENTS OF BAS SYSTEM.
6. UNDER ALT–BID #2, PROVIDE FOR ADDITIONAL THREE YEARS WARRANTY (PARTS & LABOR) FOR ENTIRE BAS SYSTEM (INCLUDING ACTUATOR, CONTROLLER & PERIM/REHEAT CONTROL VALVES) FURNISHED UNDER THIS PROJECT.
7. SCOPE FOR EACH TRADE IS IDENTIFIED ALONGSIDE (TO THE LEFT) OF EACH NOTE. THIS IS DONE WITH A VIEW TO ASSIST THE TRADES IN BIDDING PROCESS. SINCE TC WILL BE ASSIGNED TO MC, ALL WORK FOR THIS PROJECT SHALL BE THE RESPONSIBILITY OF MC. SUCCESSFULL TC SHALL BE IDENTIFIED TO ALL MECHANICAL CONTRACTORS PRIOR TO BIDDING THIS PROJECT.

REVISION | DATE

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Phone: (217) 788-2450
Fax: (217) 788-2503
www.hanson-inc.com
Offices Nationwide

Hanson No. 02S1363
Filename M–502.DWG
Scale
Date 11/02/03

LAYOUT	HWH	8/27/03
DRAWN	HWH	8/29/03
REVIEWED	ATK	xx/xx/xx

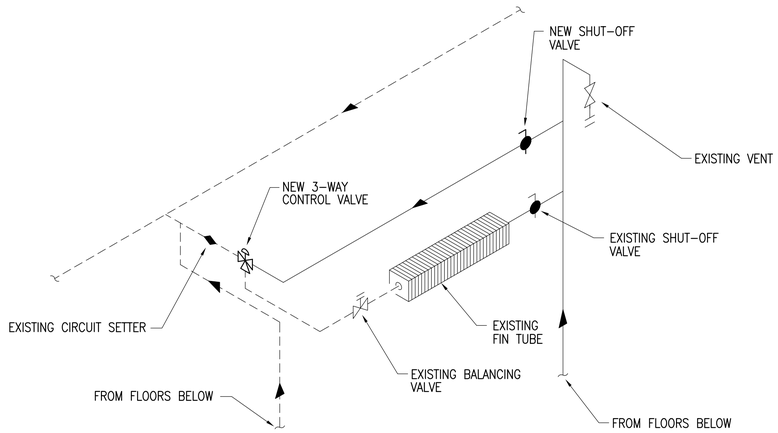
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886

SHEDULES, GENERAL NOTES

HVAC UPGRADE
HANSON OFFICE BUILDING
SPRINGFIELD, ILLINOIS

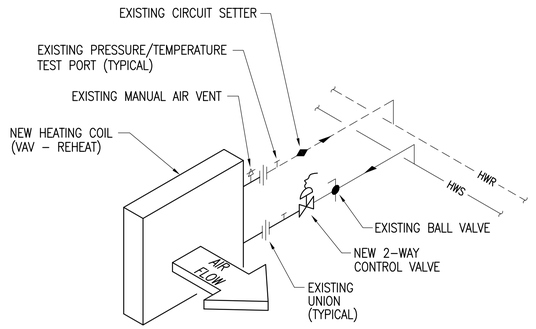
M5.2

- of XX sheets



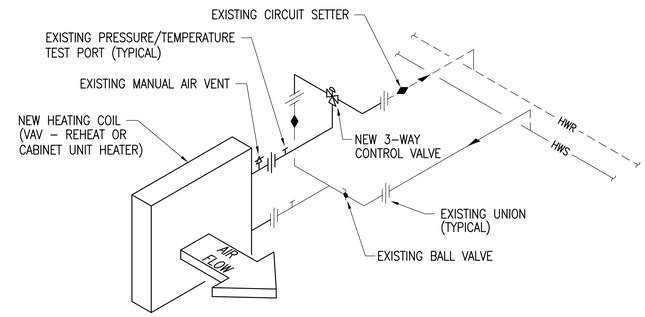
1 M5.3 FIN TUBE RADIATION PIPING SCHEMATIC (FOURTH FLOOR)

SCALE: NONE



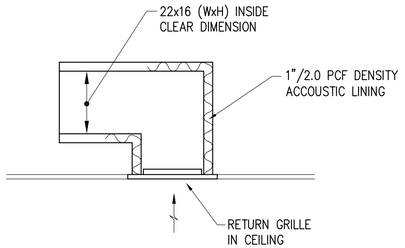
2 M5.3 HEATING COIL PIPING SCHEMATIC 2-WAY VALVE (TYPICAL)

SCALE: NONE



3 M5.3 HEATING COIL PIPING SCHEMATIC 3-WAY VALVE (TYPICAL)

SCALE: NONE

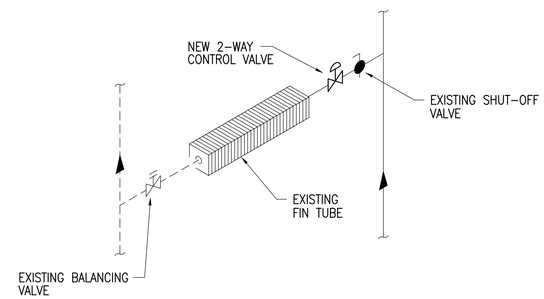


4 M5.3 DUCTED ELBOW RETURN AIR DEVICE DETAIL

SCALE: NONE

5 M5.3 BOILER PIPING ISOMETRIC

SCALE: NONE



6 M5.3 FIN TUBE RADIATION PIPING SCHEMATIC (FIRST THRU THIRD FLOORS)

SCALE: NONE

JAN 15, 2013 11:43 AM KOCHM00984
I:\HEI-BLDG\SPRINGFIELD ORIGINAL DRAWINGS 1974, 1980, 1990, 2002, 2003 & 2007\CORPPROC0000 -- 2003 -- 01-11-13\HVAC UPGRADE 4-STORY

REVISION | DATE

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886

Hanson No. 02S1363
Filename M-503.DWG
Scale
Date 11/02/03

LAYOUT	HWH	8/27/03
DRAWN	HWH	8/29/03
REVIEWED	ATK	xx/xx/xx

Phone: (217) 788-2450
Fax: (217) 788-2503
www.hanson-inc.com
Offices Nationwide

HANSON

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886

DETAILS

HVAC UPGRADE
HANSON OFFICE BUILDING
SPRINGFIELD, ILLINOIS

M5.3

- of XX sheets