

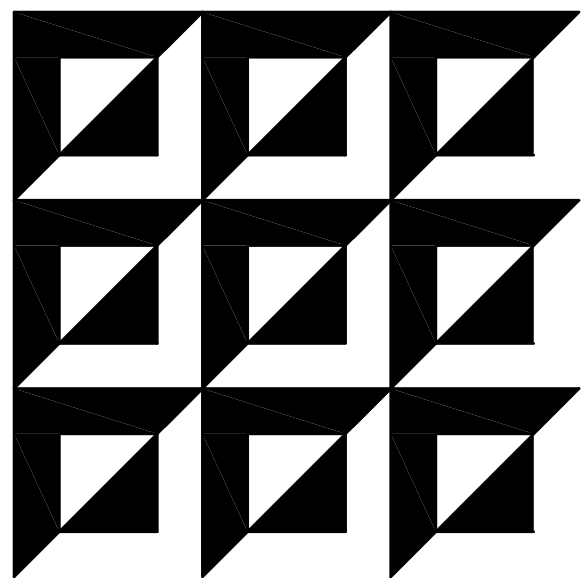
SPC - EPICENTER TECHNOLOGY BUILDING
13805 58TH ST N. CLEARWATER, FL.
VENTILATION COMMISSIONING
SPC PROJECT NUMBER - 1707-X-11-0
FEBRUARY 21, 2013 CONSTRUCTION DOCUMENTS



TABLE OF CONTENTS	
MECHANICAL & ELECTRICAL DRAWINGS	
ME2.1	PARTIAL FIRST FLOOR MECHANICAL PLAN
ME2.2	PARTIAL FIRST FLOOR MECHANICAL PLAN
ME2.3	PARTIAL FIRST FLOOR MECHANICAL PLAN
ME2.4	PARTIAL FIRST FLOOR MECHANICAL PLAN
ME2.5	PARTIAL SECOND FLOOR MECHANICAL PLAN
ME2.6	PARTIAL SECOND FLOOR MECHANICAL PLAN
ME2.7	PARTIAL SECOND FLOOR MECHANICAL PLAN
ME2.8	PARTIAL SECOND FLOOR MECHANICAL PLAN
ME2.9	FIRST FLOOR ZONING PLAN
ME2.10	SECOND FLOOR ZONING PLAN
ME3.1	LIGHTING CONTROL DETAILS
ME3.2	LIGHTING CONTROL DETAILS
ME4.1	CONTROLS DIAGRAMS
E2.1	PARTIAL FIRST FLOOR LIGHTING PLAN
E2.2	PARTIAL FIRST FLOOR LIGHTING PLAN
E2.3	PARTIAL FIRST FLOOR LIGHTING PLAN
E2.4	PARTIAL FIRST FLOOR LIGHTING PLAN
E2.5	PARTIAL SECOND FLOOR LIGHTING PLAN
E2.6	PARTIAL SECOND FLOOR LIGHTING PLAN
E2.7	PARTIAL SECOND FLOOR LIGHTING PLAN
E2.8	PARTIAL SECOND FLOOR LIGHTING PLAN

"TO THE BEST OF MY KNOWLEDGE,
THESE DRAWINGS AND THE PROJECT
MANUAL ARE COMPLETE AND COMPLY
WITH THE 'STATE REQUIREMENTS FOR
EDUCATIONAL FACILITIES.'"

SEAL



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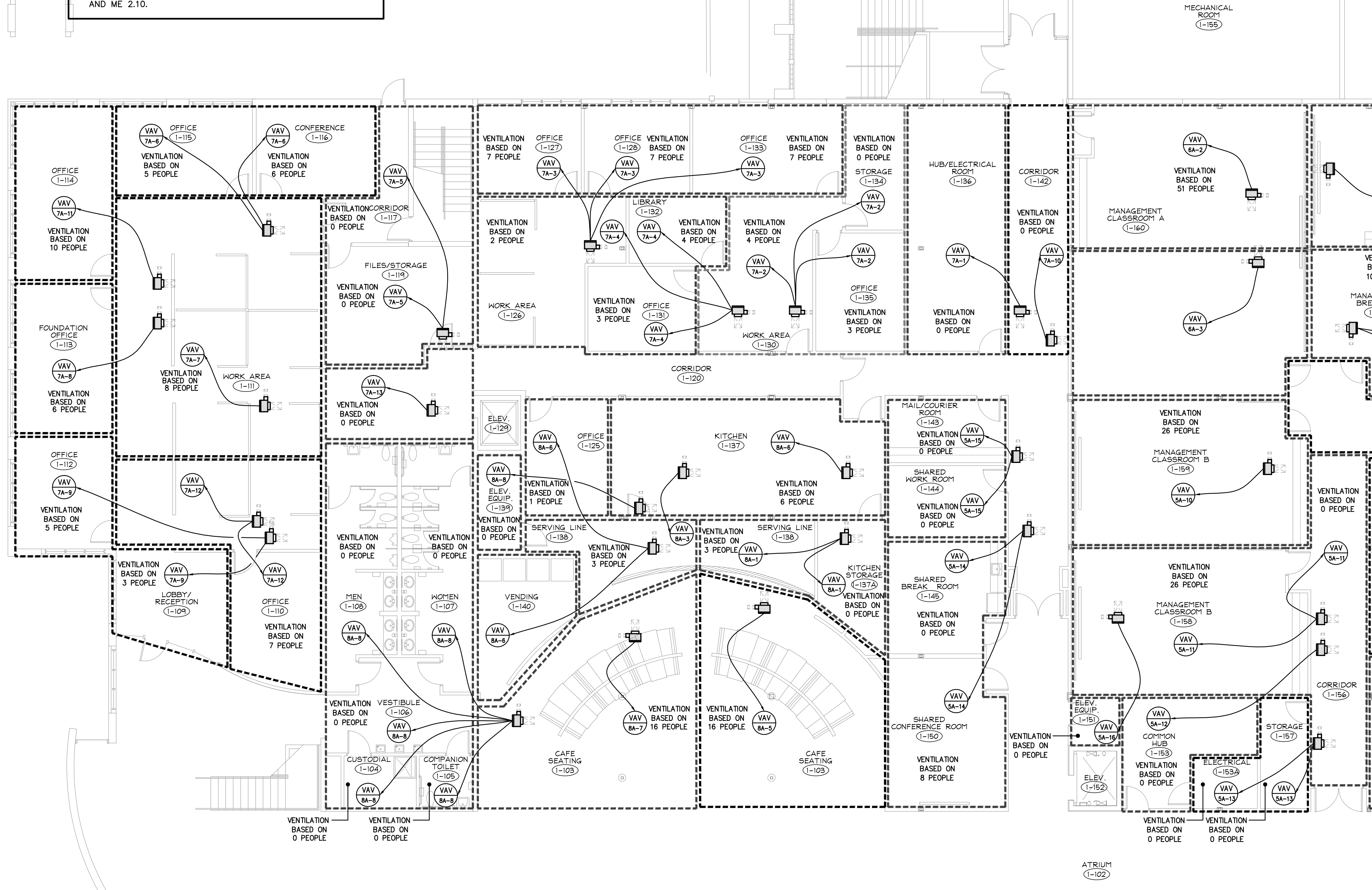
CERT. OF AUTHORIZATION NO. 4288

EMI JOB NO. 12-0210

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BASE BID SCOPE OF WORK NOTES

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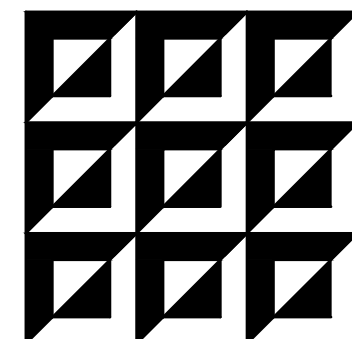
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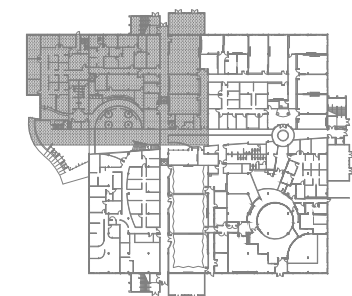
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TECHNOLOGY & BUSINESS DEVELOPMENT CENTER
VENTILATION COMMISSIONING
13805 58TH STREET - LARGO, FLORIDA

KEY PLAN:



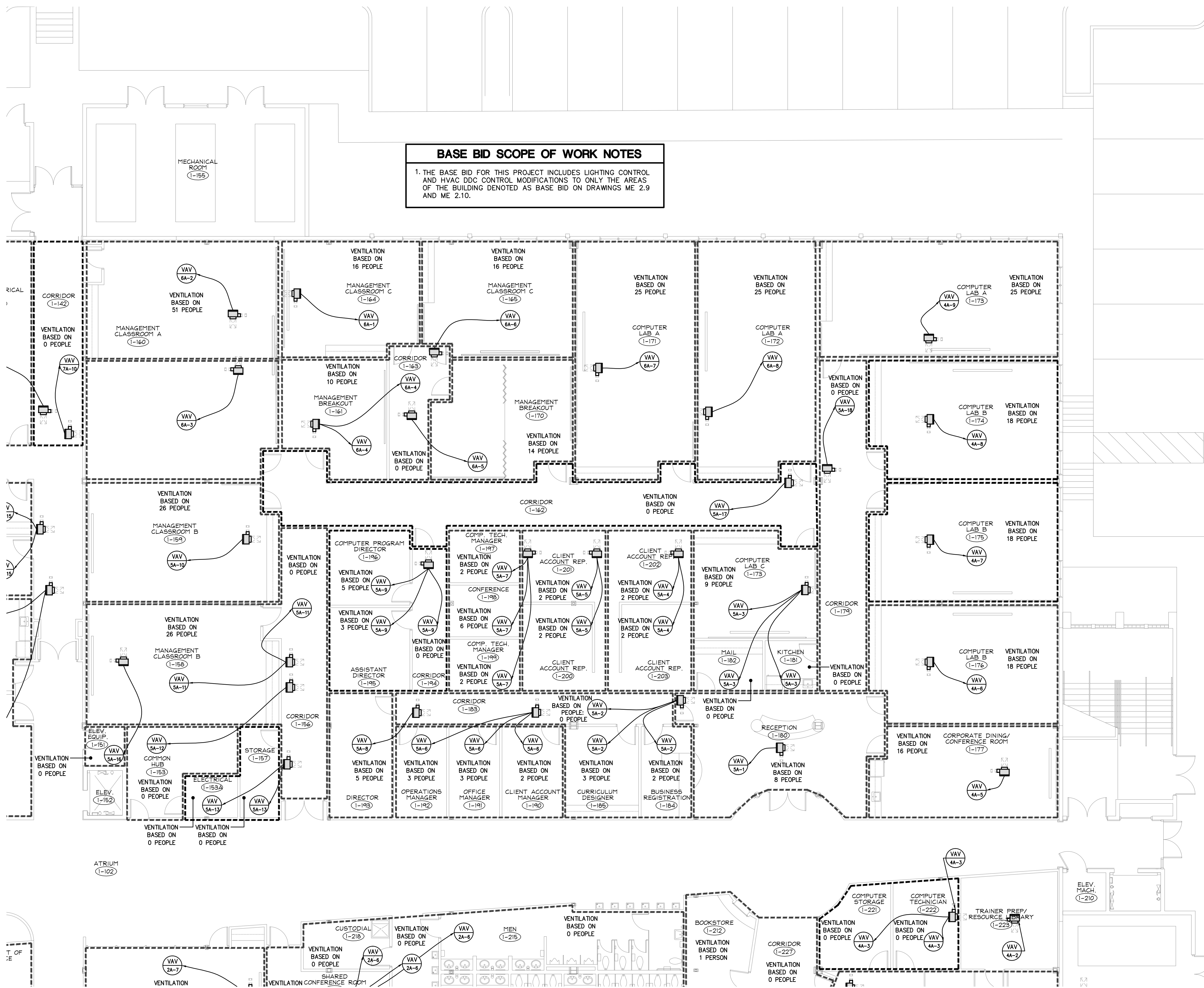
SEAL:

DRAWING TITLE:
**PARTIAL
FIRST FLOOR
MECHANICAL PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

ME2.1



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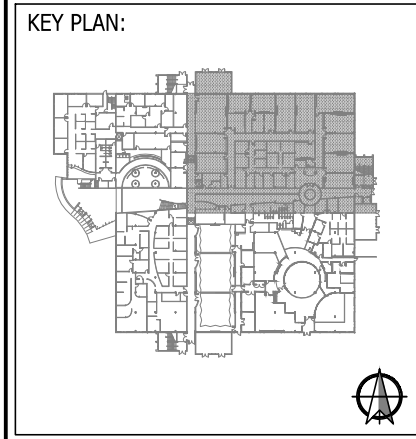
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VENTILATION COMMISSIONING

13805 58TH STREET - LARGO, FLORIDA



SEAL:

DRAWING TITLE:

**PARTIAL
FIRST FLOOR
MECHANICAL PLAN**

SCALE: 1/8" = 1'-0"

NORTH:

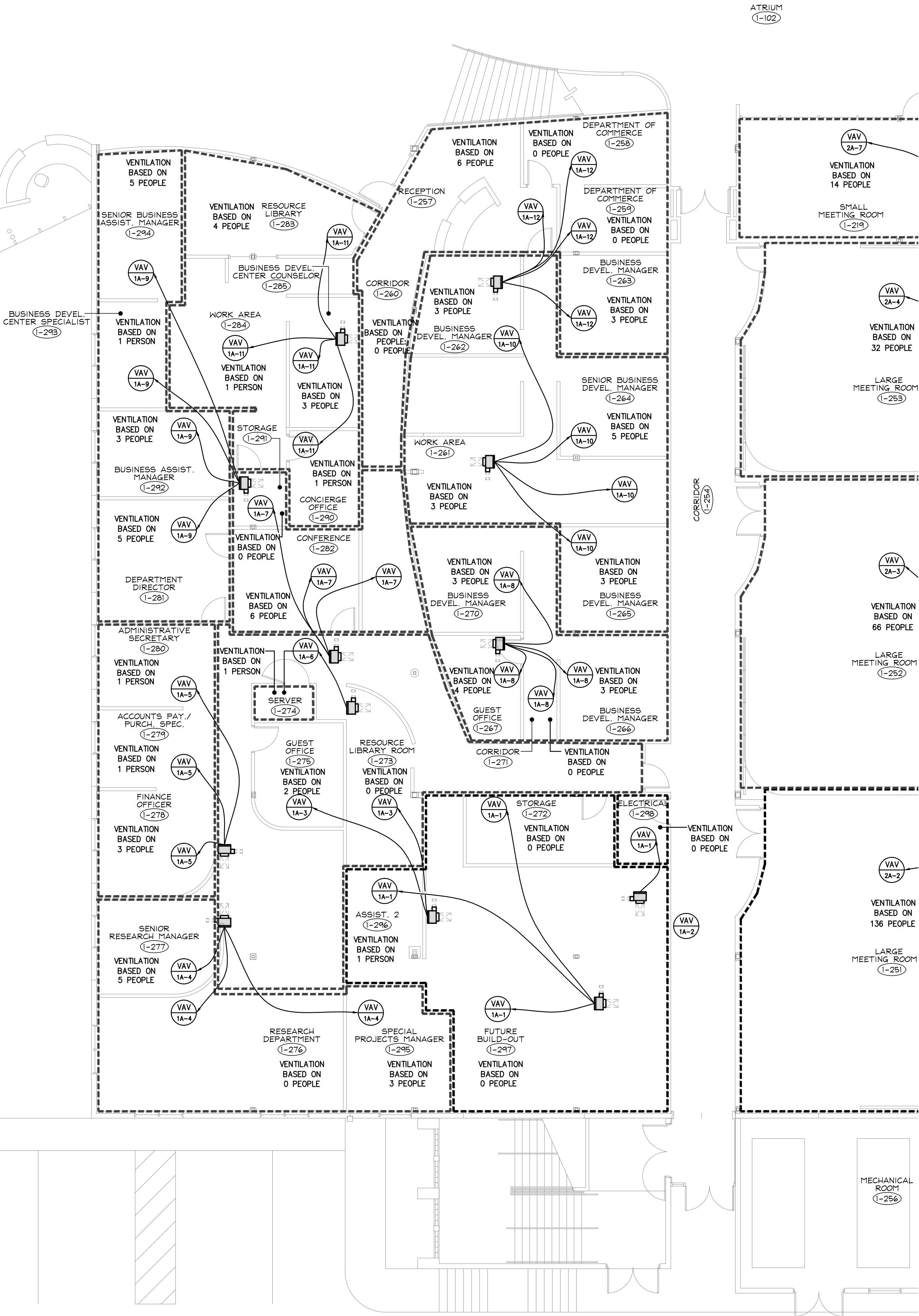
DRAWING NUMBER:

ME2.2

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LOBBY
1-101

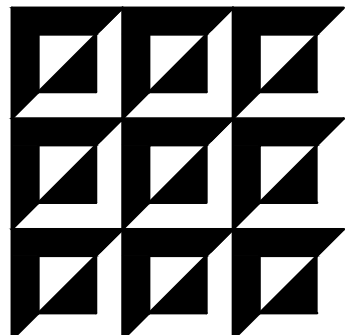


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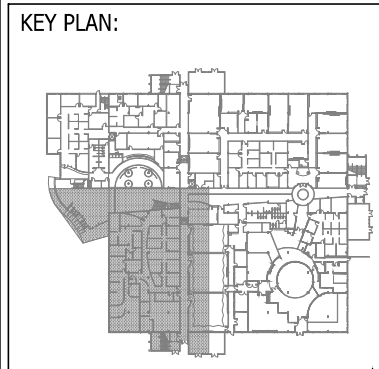
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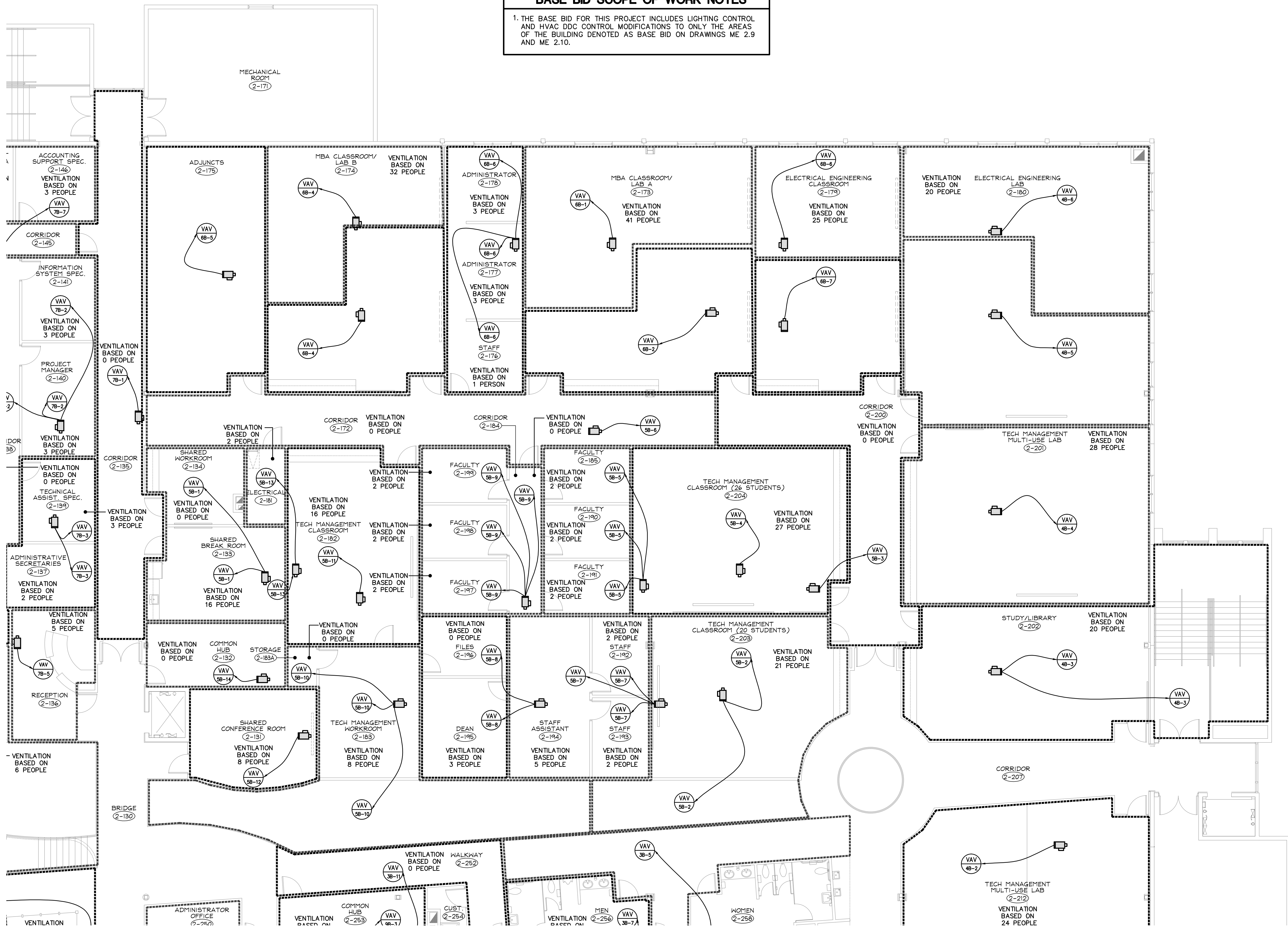


SEAL:

DRAWING TITLE:
**PARTIAL
FIRST FLOOR
MECHANICAL PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:
ME2.4



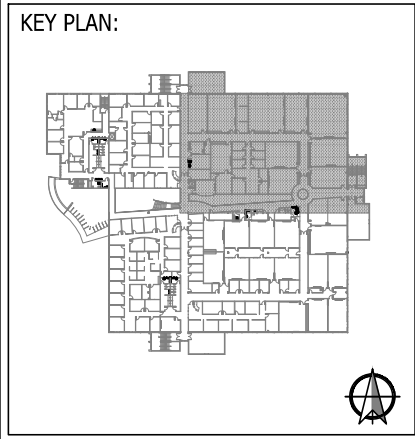
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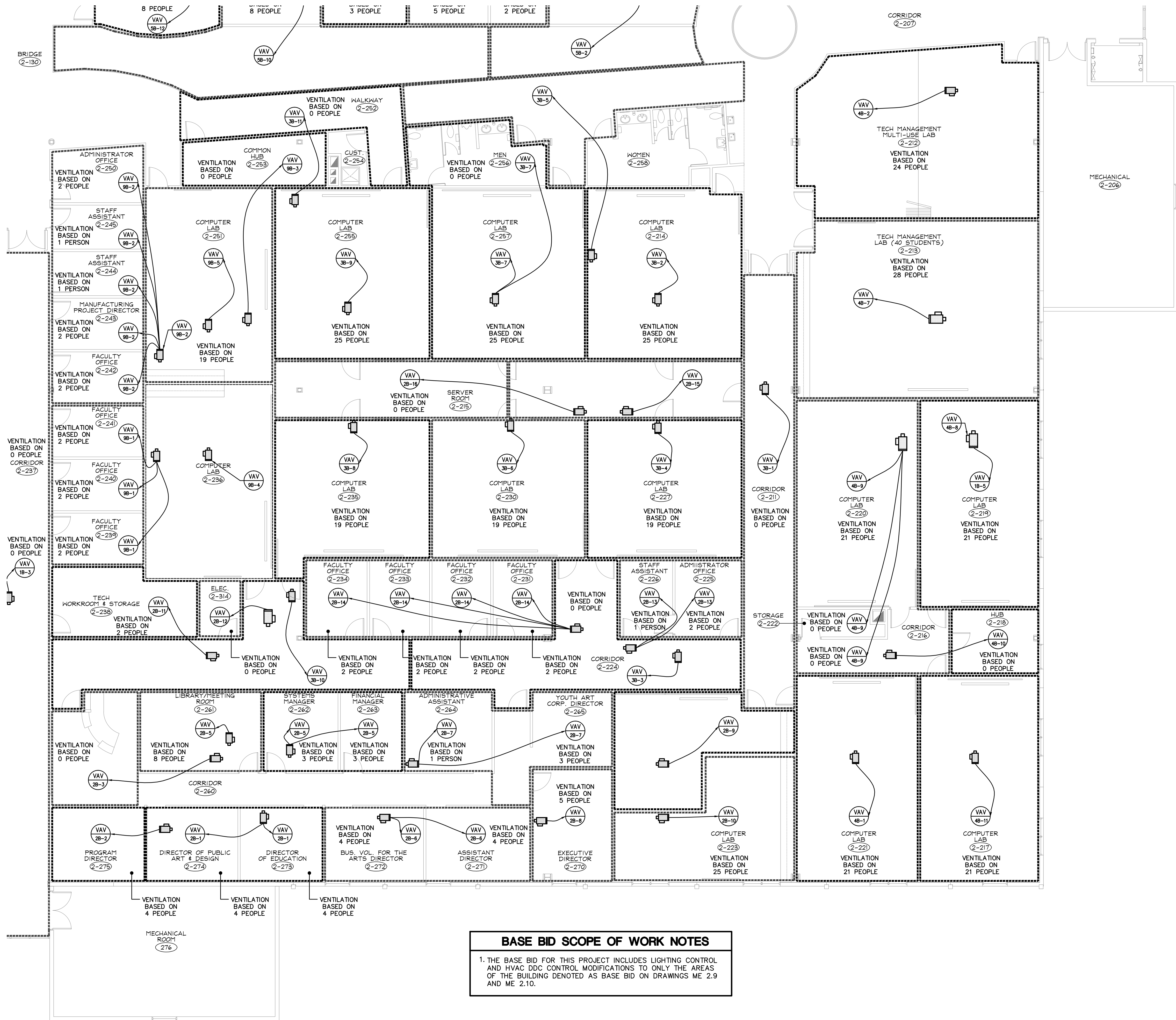
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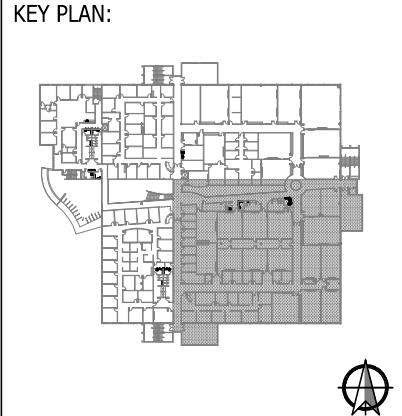
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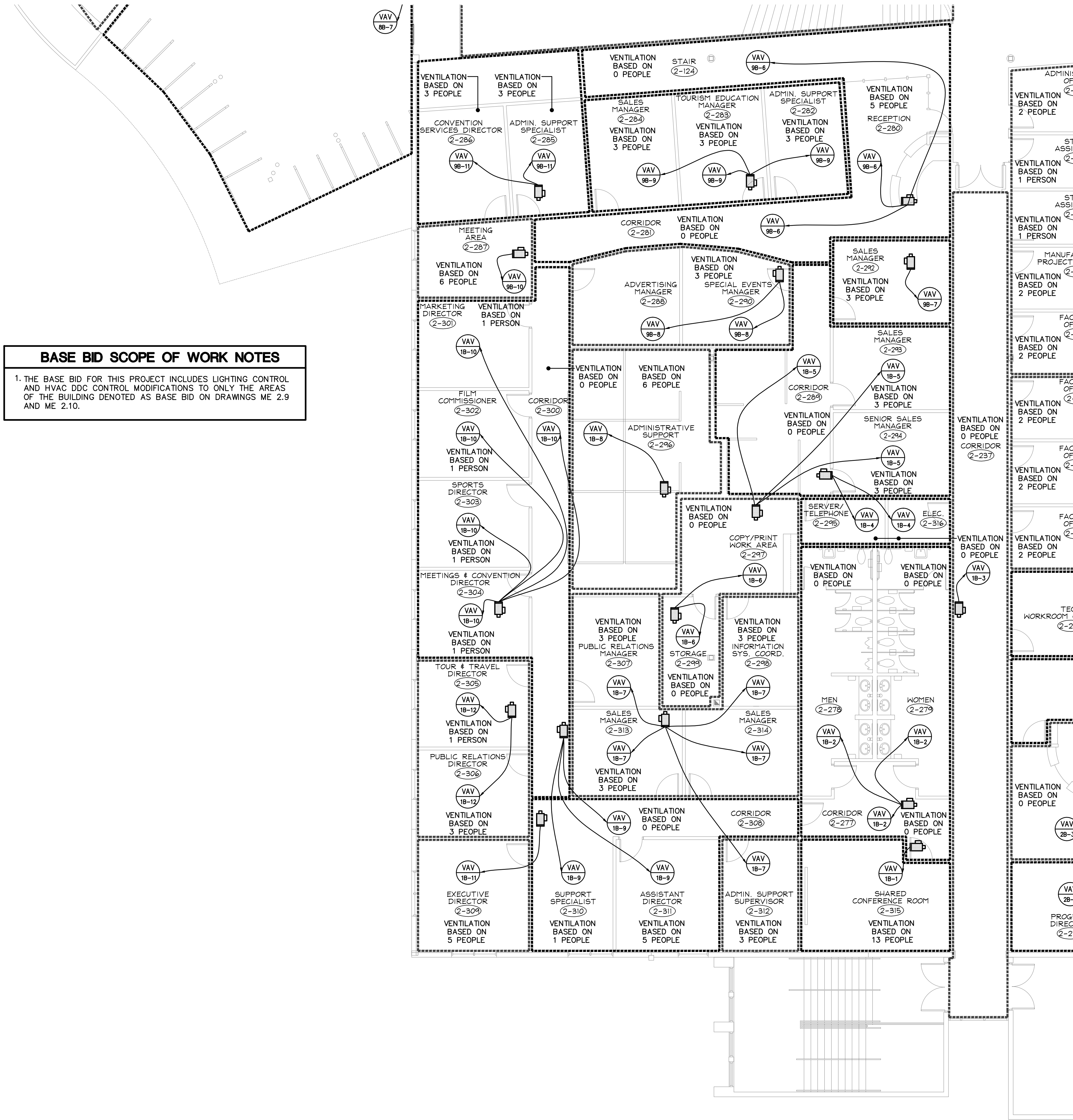
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1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.

2. ANY WALL, ROOF, FLOOR, EQUIPMENT, ETC. DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING. COORDINATE WITH GENERAL CONTRACTOR AND/OR OWNER.

3. THE SCOPE OF WORK INTENT IS TO PROVIDE A COMPLETELY NEW DIGITAL LIGHTING CONTROL SYSTEM FOR THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10. REFER TO DIGITAL LIGHTING SCOPE OF WORK NOTES FOR MORE DETAILED REQUIREMENTS. ADDITIONALLY, THE EXISTING HVAC BUILDING AUTOMATION SYSTEM SHALL BE UPGRADED AS REQUIRED TO DIRECTLY COMMUNICATE WITH THE NEW DIGITAL LIGHTING CONTROL SYSTEM. THE INTENT IS FOR THE BAS TO BE ABLE TO COMMUNICATE VIA A GATEWAY DEVICE TO PERFORM SCHEDULING, SENSITIVITY ADJUSTMENTS AND VENTILATION RESET ALGORITHMS BASED UPON THE OCCUPIED/UNOCCUPIED STATUS OF EACH OF THE ROOM OCCUPANCY SENSORS.

4. THE INFORMATION SHOWN ON THIS DRAWING IS PROVIDED SUCH THAT THE CONTROLS CONTRACTOR CAN DETERMINE THE FOLLOWING:
A. WHICH ROOMS ARE SERVICED BY WHICH AHU
B. DESIGN PEOPLE OCCUPANCY ASSOCIATED WITH EACH ROOM.

THIS INFORMATION COMBINED WITH THE ROOM VENTILATION RATES AND THE MIN-MAX OA CFM VALUES SHOWN ON DRAWING ME 4.1 WILL ALLOW THE CONTROLS CONTRACTOR TO PROVIDE THE REQUIRED OA CFM RESET ALGORITHM THAT WILL REDUCE OA CFM VENTILATION RATES BASED UPON ROOM OCCUPANCY SENSOR STATUS.

LIGHTING CONTROL NOTES

1. PROVIDE SENSOR SWITCH "NIGHT" DIGITAL LIGHTING CONTROLS IN ALL SPACES, EXCEPT MECHANICAL ROOMS, ELECTRICAL ROOMS, AND IDF/MDF ROOMS. SUBMIT LOCATIONS AND EQUIPMENT CATALOG CUT SHEETS TO OWNER/ENGINEER FOR REVIEW.

2. PROVIDE A SINGLE RELAY ROOM CONTROLLER FOR ALL ROOMS EXCEPT IN AREAS WITH MULTIPLE VOLTAGES OR MULTIPLE CIRCUITS THAT WOULD REQUIRE EITHER MULTIPLE ROOM CONTROLLERS OR MULTIPLE RELAY ROOM CONTROLLERS. ROOM CONTROLLER SHALL COMMUNICATE TO THE E.M.S. VIA A NETWORK BACKBONE PROVIDED BY SENSOR SWITCH.

3. ALL SENSORS SHALL BE DUAL TECHNOLOGY OCCUPANCY SENSORS.

4. THIS CONTRACTOR SHALL PROVIDE AND INSTALL WIRING FROM ALL ROOM CONTROLLERS AND NETWORK BRIDGES TO THE ENERGY MANAGEMENT SYSTEM.

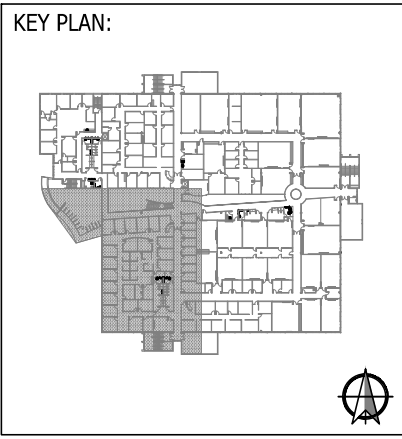
5. THE CONTRACTOR SHALL VERIFY TYPE AND QUANTITY OF DUAL TECHNOLOGY OCCUPANCY SENSORS WITH THE MANUFACTURER'S REPRESENTATIVE FOR CORRECT COVERAGE OF EACH SPACE PRIOR TO BID.

6. DUAL TECHNOLOGY CEILING MOUNT SENSORS SHOULD BE LOCATED A MINIMUM OF SIX (6) FEET FROM HVAC SUPPLY/RETURN VENTS.

7. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS.

8. PROVIDE FACTORY TRAINING FOR THE OWNER'S MAINTENANCE STAFF FOR THE ENTIRE DIGITAL LIGHTING CONTROL SYSTEM.

DRAWING PHASE:	
CONSTRUCTION DOCUMENTS	
ISSUE DATE:	EMI JOB NO.
02/21/13	12-0210
DRAWING REVISIONS:	
DATE	ISSUANCE



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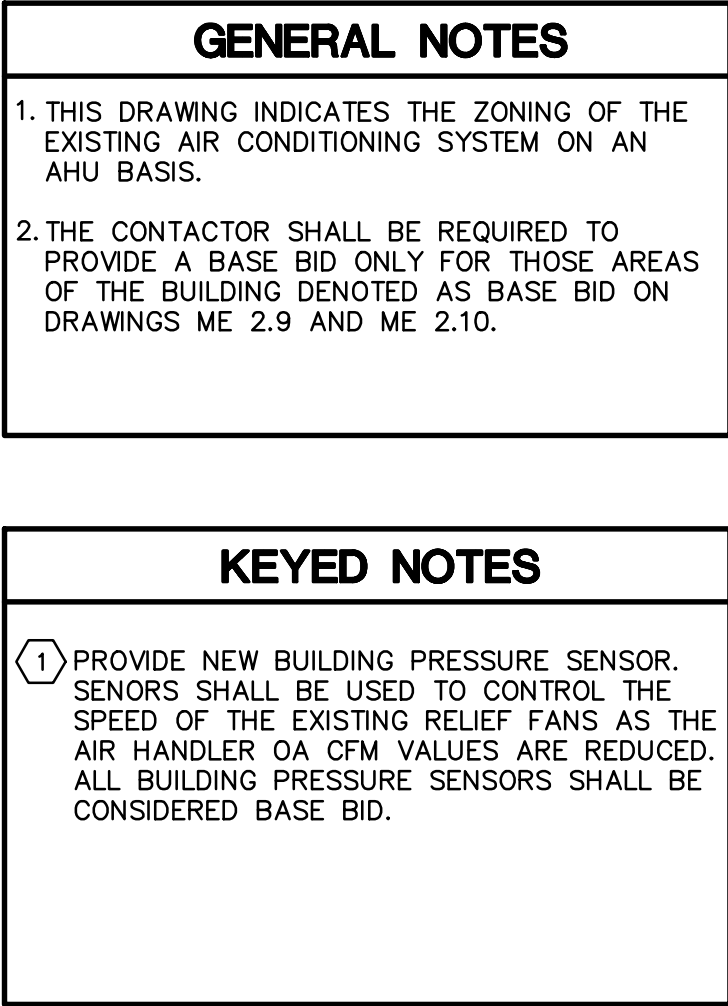
DRAWING TITLE:

**PARTIAL
SECOND FLOOR
MECHANICAL PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

ME2.8



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ISSUE DATE: 02/21/13	EMI JOB NO. 12-0210
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DATE	ISSUANCE
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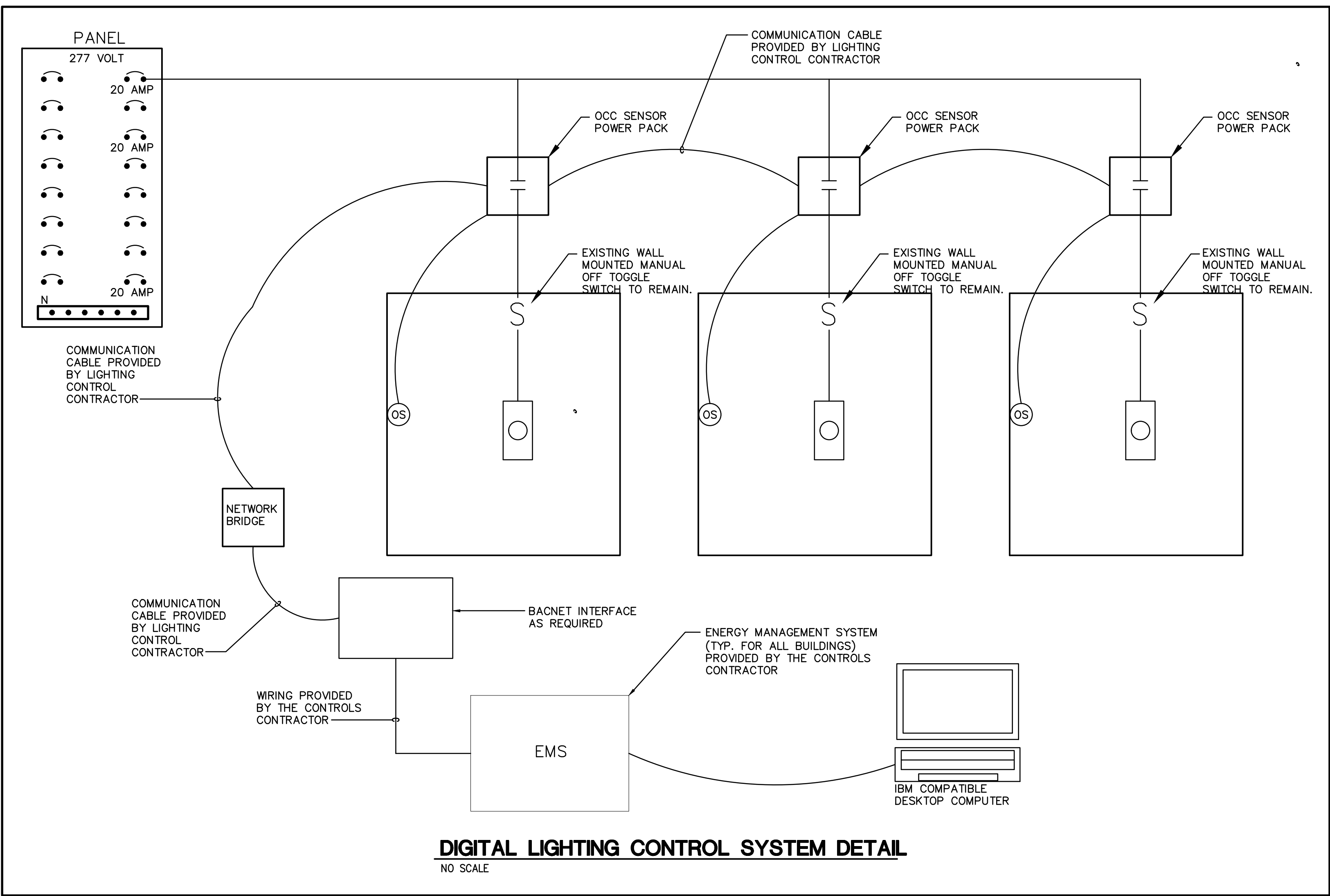
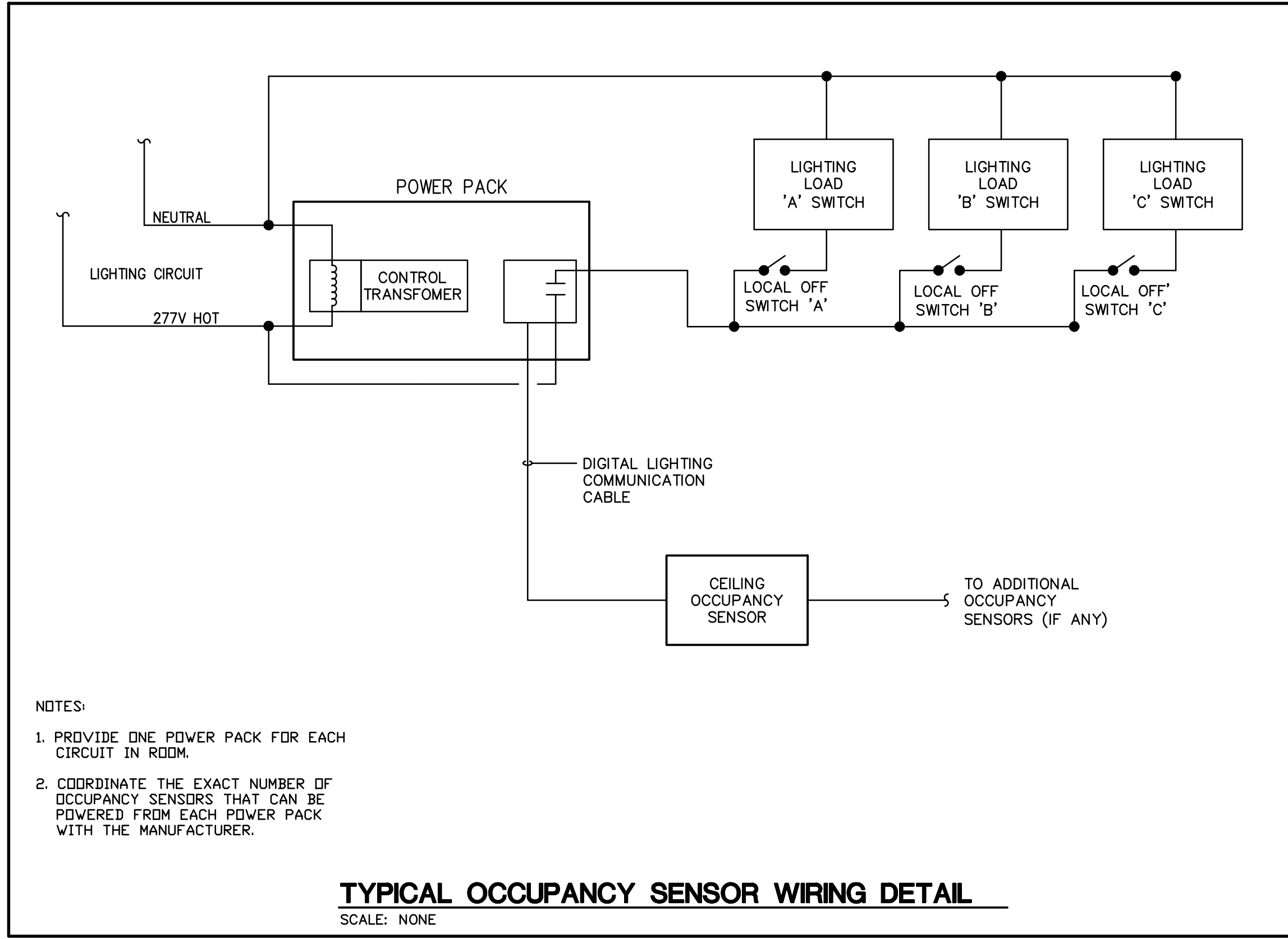
SEAL:

**FIRST FLOOR
ZONING PLAN**

DRAWING NUMBER:

ME2.9

2/20/2013 11:35:07 AM M:_2013\12-0210 SPC Epi Tech Bldg Ventilation Commissioning\Mechanical\12-0210_ME3.1_ME3.2_ME3.3_Details.dwg



EXISTING RELIEF FAN SCHEDULE												
MARK	-	RF-2A	RF-2B	RF-3A	RF-4A	RF-4B-1	RF-4B-2	RF-5A	RF-5B	RF-6A	RF-6B	RF-9B
MANUFACTURER	-	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER	-	G-121-A	G-121-A	G-180-7	G-121-A	G-101-A	G-141-B	G-095-D	G-095-D	G-170-B	G-160-B	G-101-A
SERVICE	-	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF	RELIEF
AIR QUANTITY	CFM	535	545	2860	520	810	795	315	460	1680	910	645
EXT. STATIC PRESSURE	IN H ₂ O	.68	.56	.7	.69	.6	.6	.68	.58	.7	.6	.52
FAN TYPE	-	BI	BI	BI	BI	BI	BI	BI	BI	BI	BI	BI
DRIVE TYPE	-	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MAXIMUM GENERATED NOISE	SONES	10.7	9.7	11.4	10.8	9.4	8.3	12.1	8.3	12.7	9.6	7.9
MAXIMUM FAN SPEED	RPM	1354	1245	967	1359	1501	1120	1542	1475	1018	964	1725
MOTOR SIZE	-	1/4 HP	1/4 HP	3/4 HP	1/4 HP	1/4 HP	1/6 HP	1/8 HP	1/8 HP	1/2 HP	1/3 HP	1/4 HP
CONTROLS	-	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU	INTERLOCK WITH ASSOC. AHU
LOCATION	-	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF	ROOF
ELECTRICAL CHARACTERISTICS	V/ø/HZ	115/1/60	115/1/60	480/3/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60
NOTES	-	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤	①②③④⑤

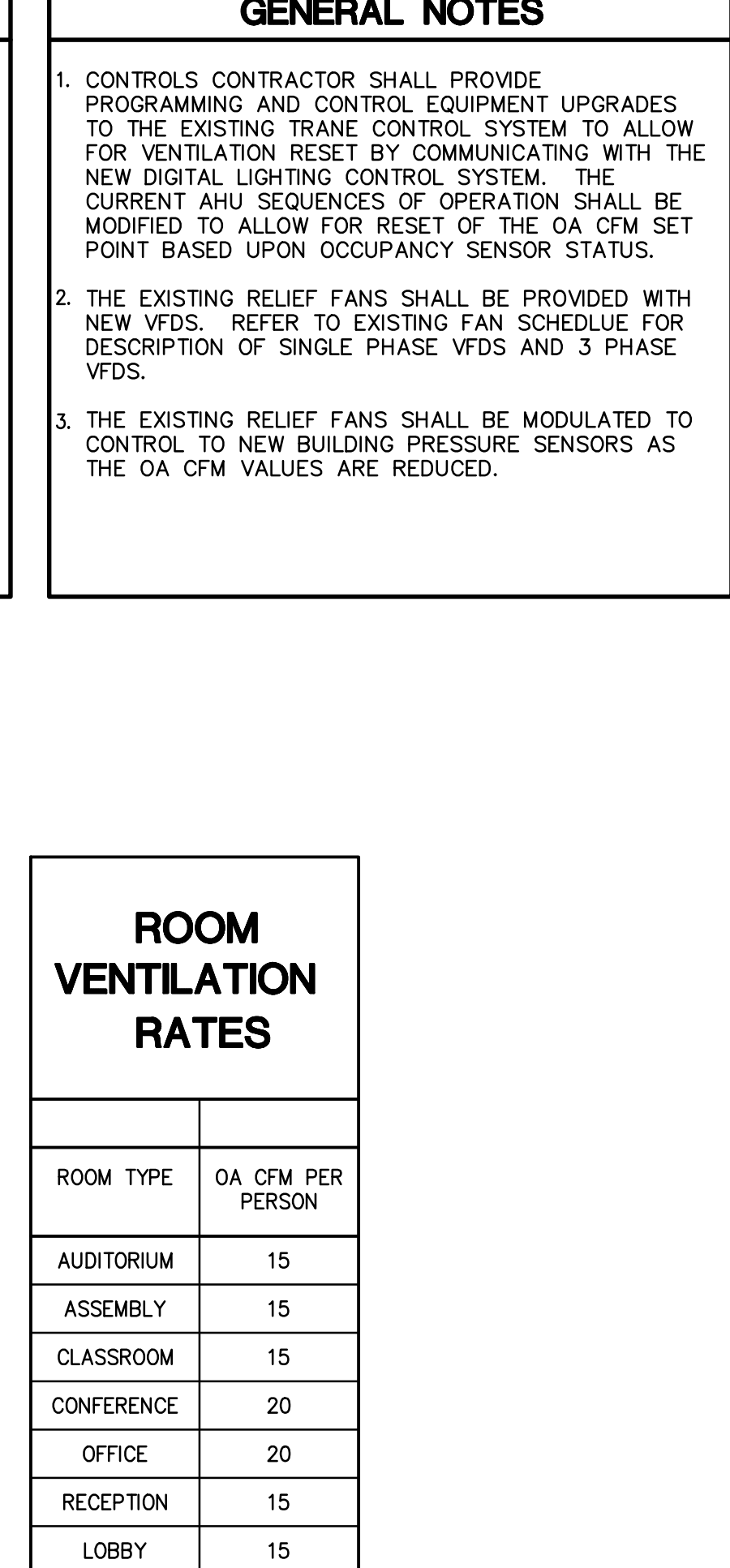
RELIEF FAN VFD UPGRADE NOTES:

1. THE EXISTING SINGLE PHASE MOTOR RELIEF FANS SHOULD ALL BE PERMANENT SPLIT CAPACITOR (PSC) STYLE MOTORS. CONTRACTOR SHALL CONFIRM AND NOTIFY THE ENGINEER IF ANY OF THE EXISTING MOTORS ARE NOT PSC STYLE MOTORS. ALL SINGLE PSC STYLE MOTOR FANS SHALL BE PROVIDED WITH A NEW SINGLE PHASE INPUT-SINGLE PHASE OUTPUT VARIABLE SPEED DRIVE. DRIVES SHALL BE BY OPTIDRIVE OR APPROVED EQUAL.
2. THE EXISTING THREE PHASE MOTOR RELIEF FANS SHOULD BE PROVIDED WITH NEW THREE PHASE INPUT-THREE PHASE OUTPUT VARIABLE SPEED DRIVES. DRIVES SHALL BE BY TRANE.

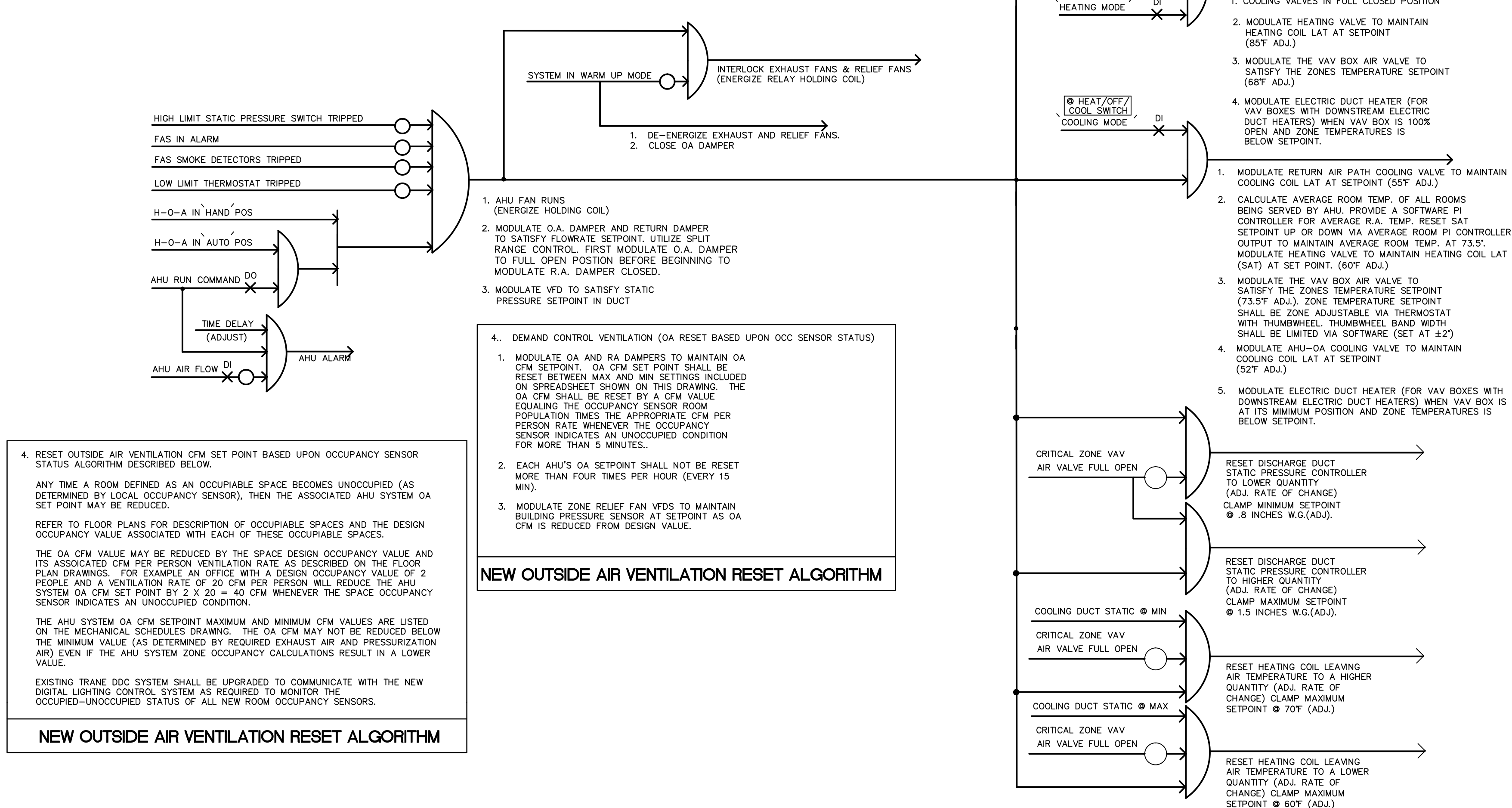
EXISTING RELIEF FAN NOTES

- ① PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO FAN. REFER TO STANDARD MECHANICAL DETAILS FOR FURTHER DETAILS.
- ② PROVIDE FAN WITH GRAVITY BACKDRAFT DAMPER.
- ③ PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.
- ④ PROVIDE WITH FACTORY PREFABRICATED ROOF CURB.
- ⑤ PROVIDE FAN WITH SPEED CONTROLLER. MOUNT SPEED CONTROLLER IN 2X4 METALLIC BOX ADJACENT TO FAN IN CEILING. TEST AND BALANCE CONTRACTORS SHALL ADJUST FAN PERFORMANCE THROUGH USE OF SPEED CONTROLLER.
- ⑥ PROVIDE WITH HORIZONTAL INLET AND VERTICAL DISCHARGE.
- ⑦ INTERLOCK WITH REFRIGERANT MONITOR.

DRAWING REVISIONS:	
DATE	ISSUANCE



ROOM VENTILATION RATES	
ROOM TYPE	OA CFM PER PERSON
AUDITORIUM	15
ASSEMBLY	15
CLASSROOM	15
CONFERENCE	20
OFFICE	20
RECEPTION	15
LOBBY	15



			TOTAL PEOPLE OA CFM	EXHAUST CFM	.05 CFM/SF POSITIVE PRESSURE CFM	PRESSURE CFM PER SF	TOTAL EA + PRESSURE CFM	RELIEF FAN CFM	DESIGN OA CFM (GREATER OF PEOPLE OA AND EA-PRESSURE)	MAX DESIGN OA CFM	MIN DESIGN OA CFM	AHU SCHEDULED OA CFM	EXHAUST DRIVEN ZONE	
	AHU #	SF	# PEOPLE											NOTES
BASE BID	1A	7817	79	1580	245	391	0.05	636	0	1580	1580	636	1580	
	2A	7492	256	3950	2350	375	0.05	2729	534	3950	3950	2729	3950	
BASE BID	3A	10380	214	4420	0	519	0.05	519	2860	4420	4420	519	4420	
BASE BID	4A	5724	115	1825	520	286	0.05	806	520	1825	1825	806	1825	
	5A	7756	125	2240	770	388	0.05	1158	315	2240	2240	1158	2240	
BASE BID	6A	4515	157	2355	0	226	0.05	226	1680	2355	2355	226	2355	
	7A	6504	87	1740	0	325	0.05	325	0	1740	1740	325	1740	
	8A	4267	45	900	2355	213	0.05	2548	0	2548	2548	2548	2971	YES 1
	1B	6884	62	1240	1620	344	0.05	1964	0	1964	1964	1964	2683	YES 2
	2B	5236	88	1635	295	262	0.05	557	545	1635	1635	557	1635	
	3B	6722	132	2190	1180	336	0.05	1516	0	2190	2190	1516	2190	
BASE BID	4B	9685	204	3060	0	484	0.05	484	1605	3060	3060	484	3060	
	5B	8062	120	2000	340	403	0.05	743	460	2000	2000	743	2000	
BASE BID	6B	4669	105	1610	0	233	0.05	233	910	1610	1610	233	1610	
	7B	5380	92	1840	145	419	0.05	564	445	1840	1840	564	1600	
	8B	6542	39	780	1420	327	0.05	1747	0	1747	1747	1747	2400	YES 3
	9B	5697	86	1540	0	285	0.05	285	645	1540	1540	285	1460	

NOTES	TOTALS	38,245	17,037
1. OA CFM CAN BE REDUCED FROM 2971 DOWN TO 2548 CFM AS LONG AS NO NEGATIVE PRESSURE CONDITIONS ARE EXPERIENCED.			
2. OA CFM CAN BE REDUCED FROM 2683 DOWN TO 1964 CFM AS LONG AS NO NEGATIVE PRESSURE CONDITIONS ARE EXPERIENCED.			
3. OA CFM CAN BE REDUCED FROM 2400 DOWN TO 1747 CFM AS LONG AS NO NEGATIVE PRESSURE CONDITIONS ARE EXPERIENCED.			

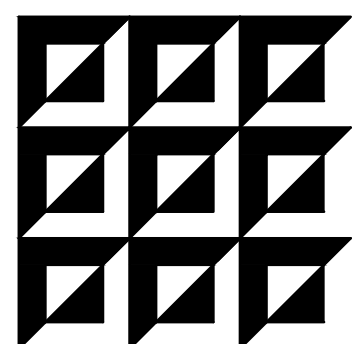
BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.

EXISTING VARIABLE VOLUME AHU - CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE

PCM'S SHALL NOT BE INSTALLED ON AIR HANDLING UNITS. COORDINATE WITH OWNER AND MECHANICAL ROOM CONFIGURATION FOR LOCATIONS AND CLEARANCES.



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DRAWING PHASE:

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ISSUE DATE: 02/21/13	EMI JOB NO. 12-0210

DRAWING REVISIONS:

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KEY PLAN:

SEAL:

DRAWING TITLE:

CONTROLS DIAGRAMS

SCALE:	NORTH:
N.T.S.	

DRAWING NUMBER:

ME4.1



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

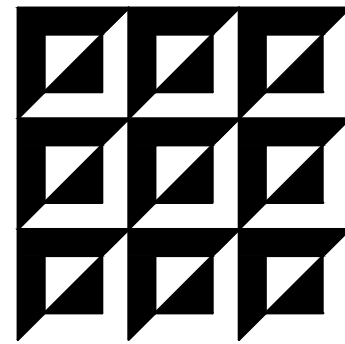
- 1 LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
- 2 PROVIDE A LIGHTING CONTACTOR (NUMBER OF POLES AS REQUIRED) THAT SHALL CONTROL EXTERIOR LIGHTING VIA THE EMS. COORDINATE CONTROL REQUIREMENT WITH MECHANICAL CONTRACTOR. LOCATE CONTACTORS IN ELECTRICAL ROOM.
- 3 ROUTE CIRCUIT THROUGH ZONE 'A' CONTACTOR CONTROLLER IN ELECTRICAL ROOM.
- 4 ROUTE CIRCUIT THROUGH ZONE 'B' CONTACTOR CONTROLLER IN ELECTRICAL ROOM.
- 5 PROVIDE MULTIPOLE CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
- 6 ROUTE CIRCUIT THROUGH ZONE 'S' CONTACTOR CONTROLLER IN ELECTRICAL ROOM.

REFERENCE DWG NOTES

1. THIS IS AN EXISTING LIGHTING DRAWING BEING PROVIDED FOR REFERENCE PURPOSES ONLY. THE DRAWING IS BEING PROVIDED TO ASSIST IN THE PREPARATION OF BIDS FOR THE NEW PROPOSED DIGITAL LIGHTING CONTROL SYSTEM.

BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.



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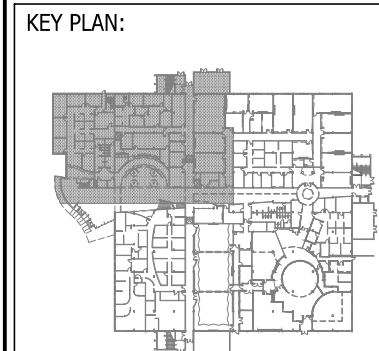
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ISSUE DATE:	EMI JOB NO.
02/21/13	12-0210

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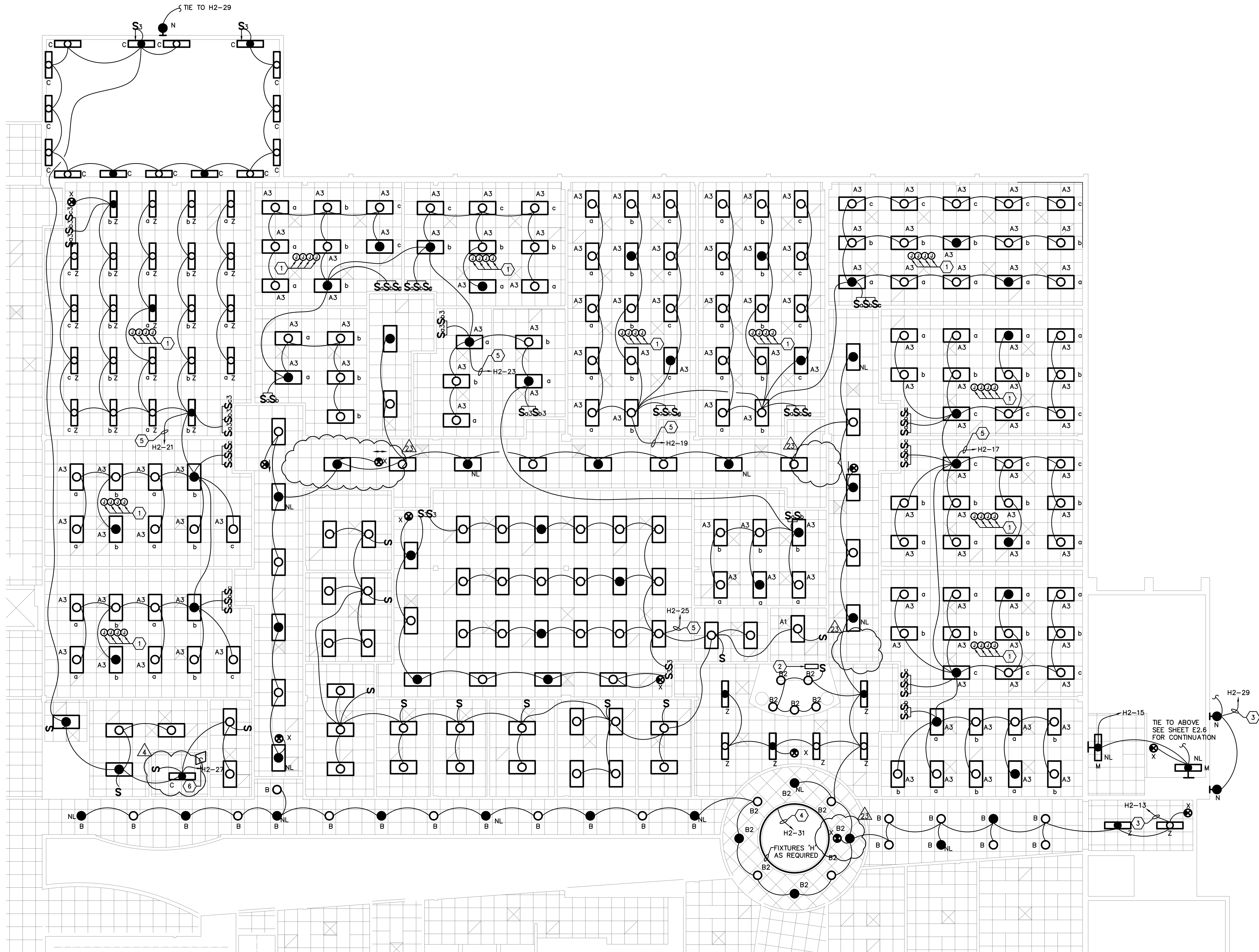
DRAWING TITLE:

**PARTIAL
FIRST FLOOR
LIGHTING PLAN**

SCALE: 1/8" = 1'-0"	NORTH:
------------------------	------------

DRAWING NUMBER:

E2.1



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

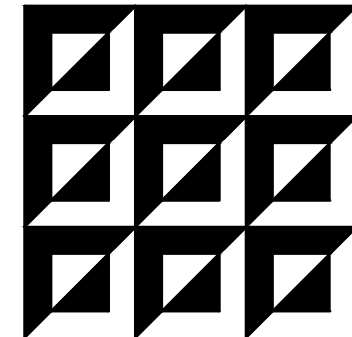
- 1) JUNCTION BOXES FOR OCCUPANCY SENSORS AND SWITCH PACKS. PROVIDE 1 (ONE) NOVITAS, INC. MODEL # 01-300 SENSOR AND 3 (THREE) MODEL # 13-051 SWITCHPACKS. PROVIDE ALL COMPONENTS (JUNCTION BOXES, TRANSFORMERS, DEVICES, CONDUITS, CONTROL WIRING, ETC.) NECESSARY FOR CONTROL.
- 2) LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
- 3) PROVIDE A LIGHTING CONTACTOR (NUMBER OF POLES AS REQUIRED) THAT SHALL CONTROL EXTERIOR LIGHTING VIA EMS. COORDINATE CONTROL REQUIREMENT WITH MECHANICAL CONTRACTOR. LOCATE CONTACTORS IN ELECTRICAL ROOM.
- 4) ROUTE CIRCUIT THROUGH ZONE 'C' CONTACTOR IN ELECTRICAL ROOM.
- 5) ROUTE CIRCUIT THROUGH ZONE 'D' CONTACTOR IN ELECTRICAL ROOM.
- 6) PROVIDE MULTIPOLE CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.

REFERENCE DWG NOTES

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BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.



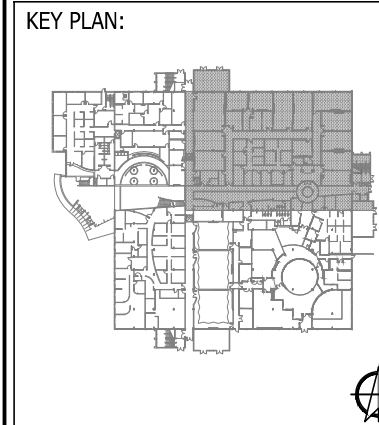
ENGINEERING MATRIX, INC.
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DATE	ISSUANCE

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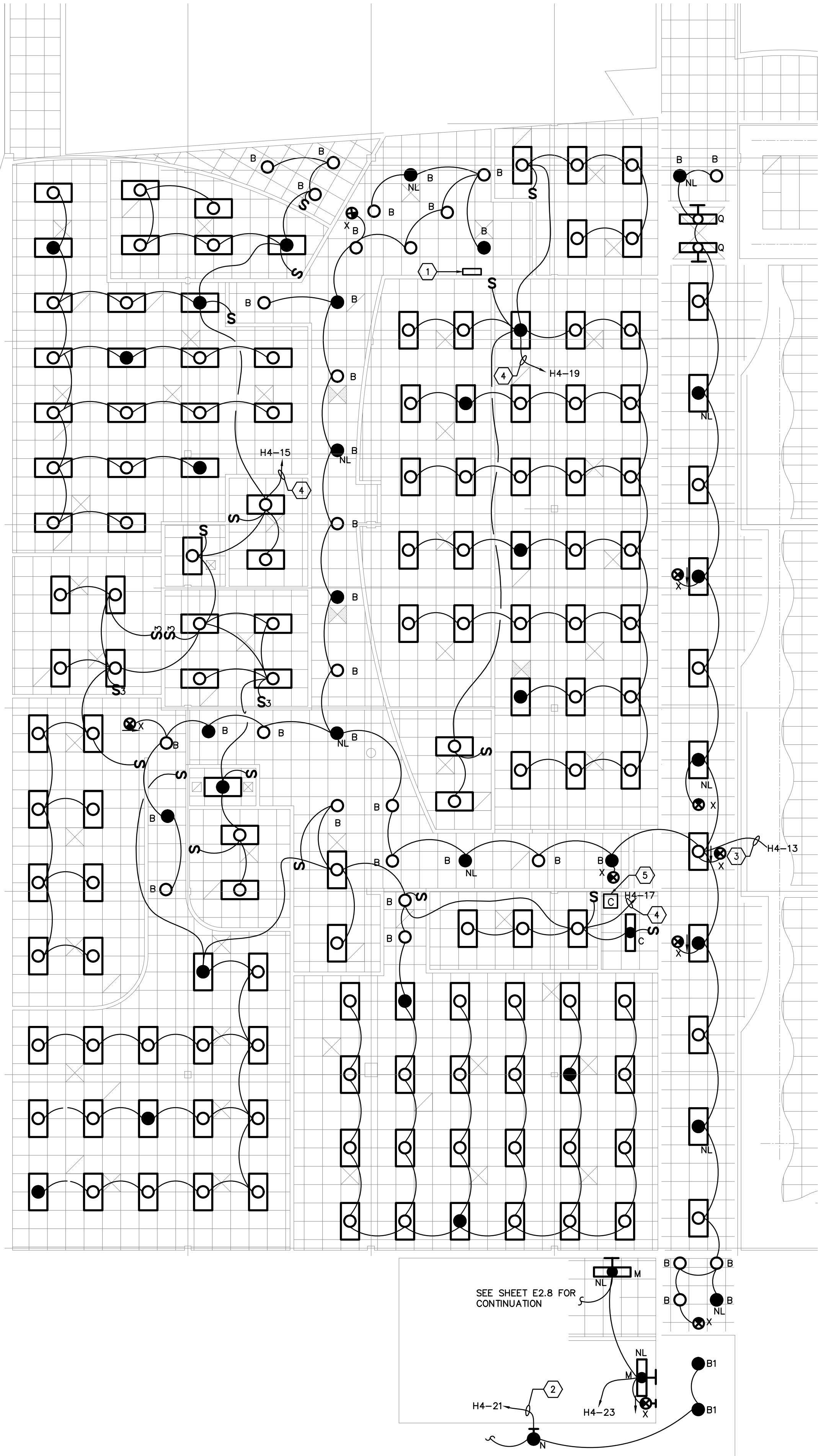
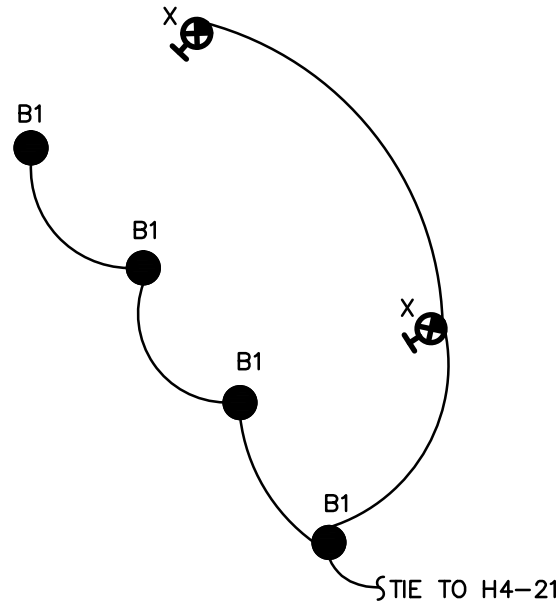
SEAL:

DRAWING TITLE:
**PARTIAL
FIRST FLOOR
LIGHTING PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

E2.2



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

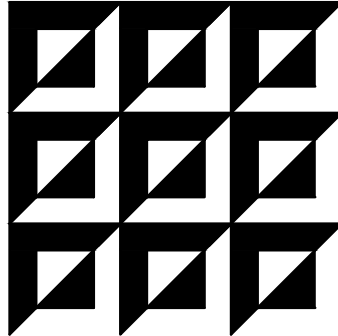
- 1 LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
- 2 PROVIDE A LIGHTING CONTACTOR (NUMBER OF POLES AS REQUIRED) THAT SHALL CONTROL EXTERIOR LIGHTING VIA THE EMS. COORDINATE CONTROL REQUIREMENT WITH MECHANICAL CONTRACTOR. LOCATE CONTACTORS IN ELECTRICAL ROOM.
- 3 ROUTE CIRCUIT THROUGH ZONE 'G' CONTACTOR IN ELECTRICAL ROOM.
- 4 ROUTE CIRCUIT THROUGH ZONE 'H' CONTACTOR IN ELECTRICAL ROOM.
- 5 PROVIDE MULTIPOLE CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.

REFERENCE DWG NOTES

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BASE BID SCOPE OF WORK NOTES

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CONSTRUCTION DOCUMENTS

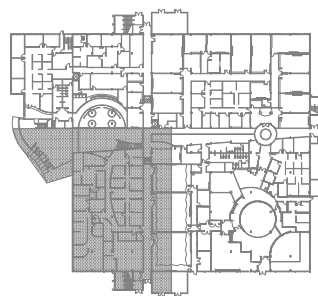
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DRAWING REVISIONS:

DATE	ISSUANCE

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KEY PLAN:



SEAL:

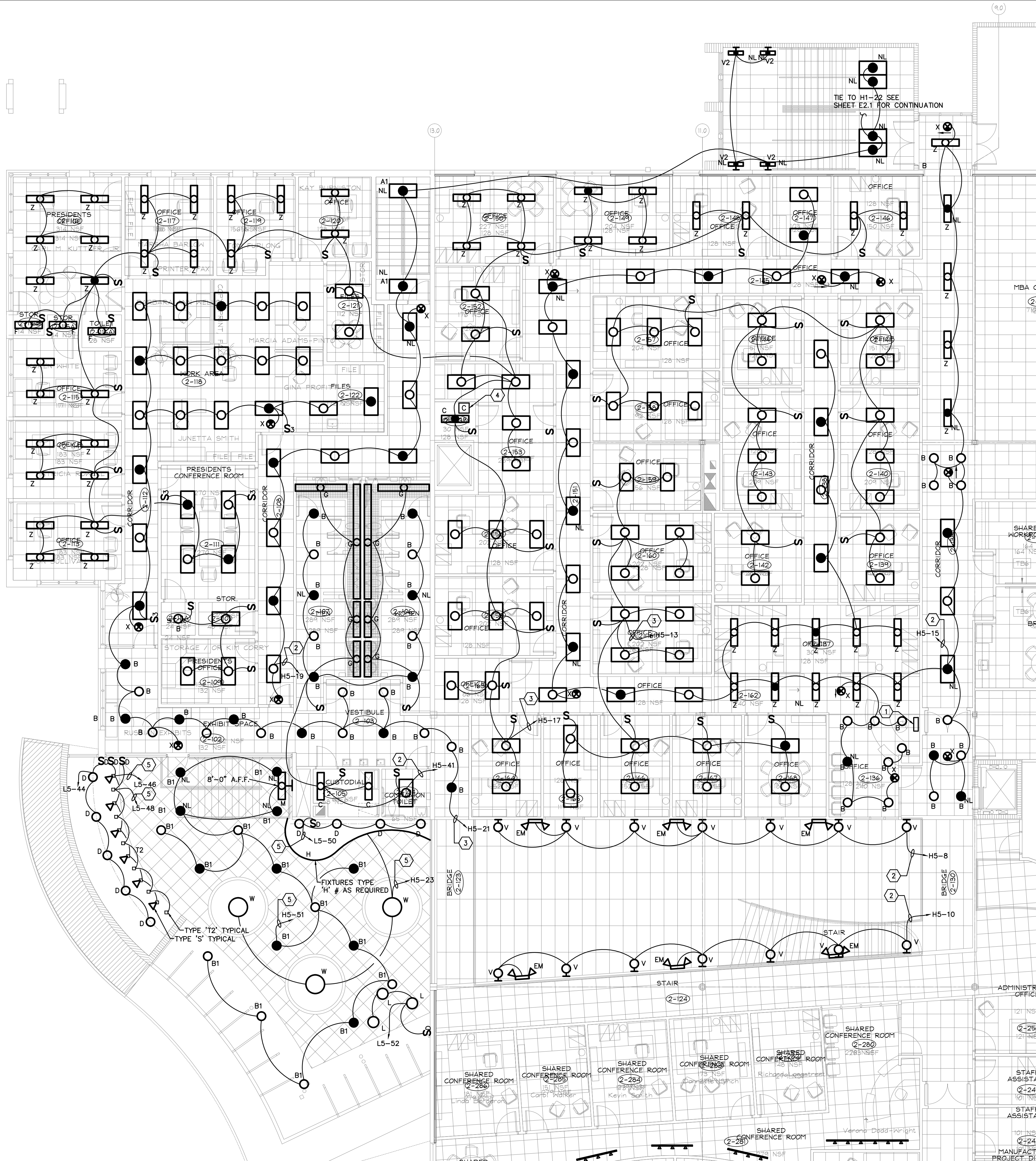
DRAWING TITLE:

**PARTIAL
FIRST FLOOR
LIGHTING PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

E2.4



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

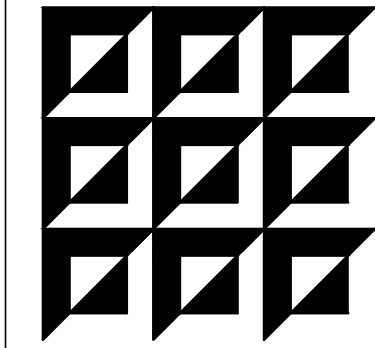
1. LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
2. ROUTE CIRCUIT THROUGH ZONE 'I' CONTACTOR IN ELECTRICAL ROOM.
3. ROUTE CIRCUIT THROUGH ZONE 'J' CONTACTOR IN ELECTRICAL ROOM.
4. PROVIDE MULTIPOLAR CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
5. ROUTE CIRCUIT THROUGH ZONE 'R' CONTACTOR IN ELECTRICAL ROOM.

REFERENCE DWG NOTES

1. THIS IS AN EXISTING LIGHTING DRAWING BEING PROVIDED FOR REFERENCE PURPOSES ONLY. THE DRAWING IS BEING PROVIDED TO ASSIST IN THE PREPARATION OF BIDS FOR THE NEW PROPOSED DIGITAL LIGHTING CONTROL SYSTEM.

BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.



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CERT. OF AUTHORIZATION NO. 4358
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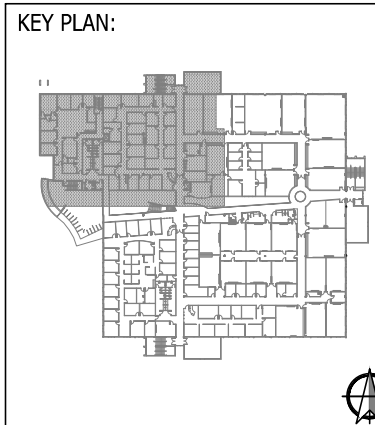
SPC
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COLLEGE

DRAWING PHASE:
CONSTRUCTION DOCUMENTS

ISSUE DATE: 02/21/13 EMI JOB NO. 12-0210

DRAWING REVISIONS:
DATE ISSUANCE

ST. PETERSBURG COLLEGE
TECHNOLOGY & BUSINESS DEVELOPMENT CENTER
VENTILATION COMMISSIONING
13805 58TH STREET - LARGO, FLORIDA



SEAL:

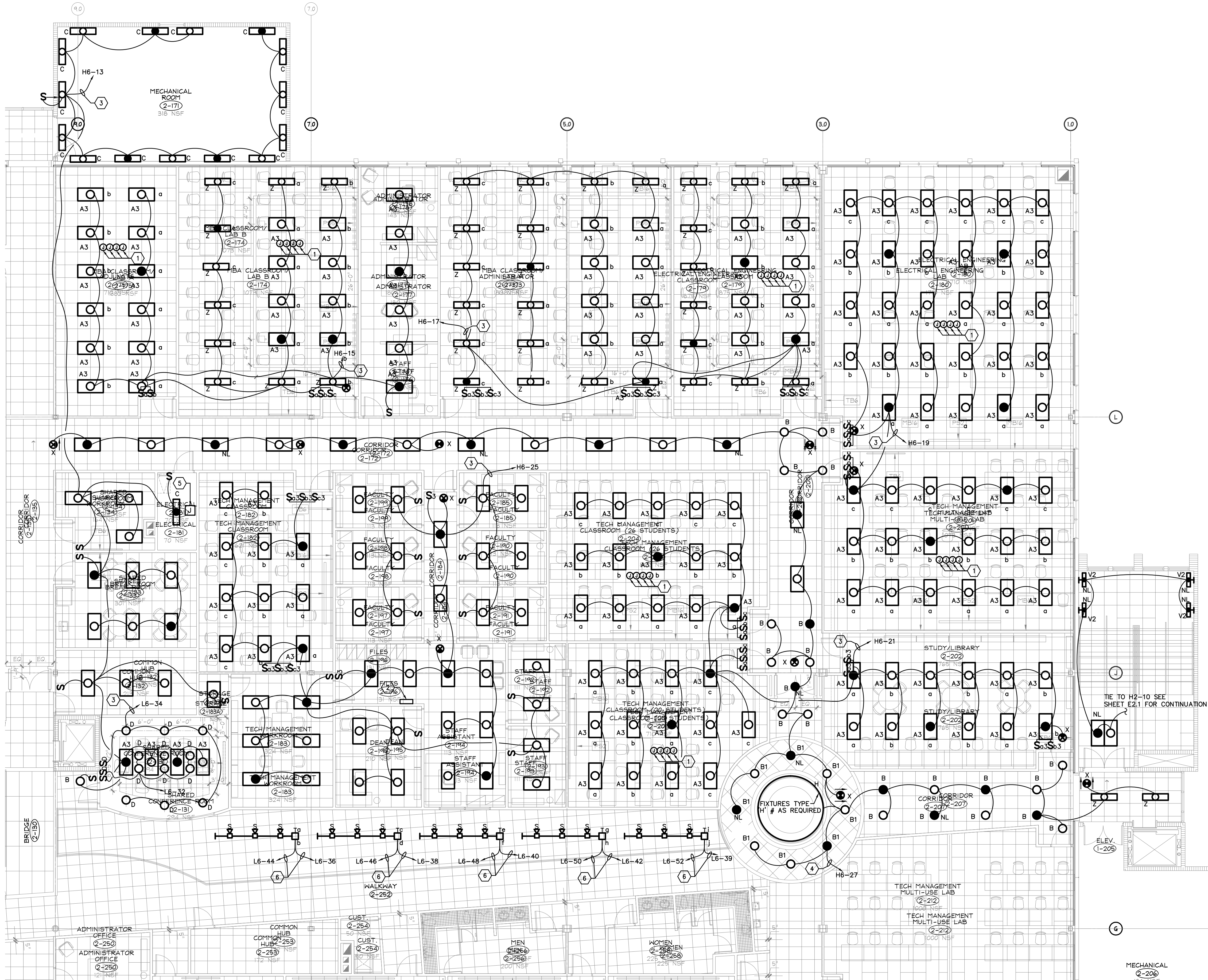
DRAWING TITLE:

**PARTIAL
SECOND FLOOR
LIGHTING PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

E2.5



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

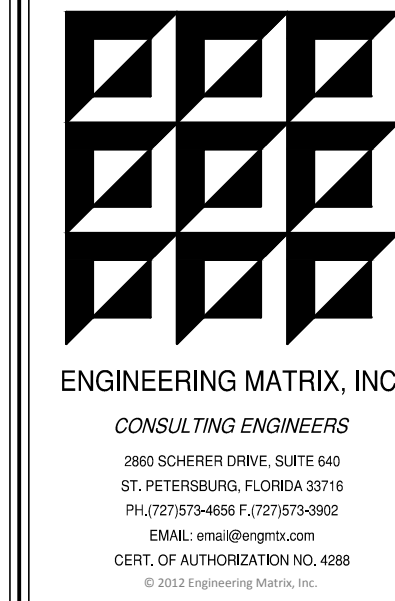
- 1 JUNCTION BOXES FOR OCCUPANCY SENSORS AND SWITCH PACKS. PROVIDE 1 (ONE) NOVITAS, INC. MODEL # 01-300 SENSOR AND 3 (THREE) MODEL # 13-051 SWITCHPACKS. PROVIDE ALL COMPONENTS (JUNCTION BOXES, TRANSFORMERS, DEVICES, CONDUITS, CONTROL WIRING, ETC.) NECESSARY FOR CONTROL.
- 2 LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
- 3 ROUTE CIRCUIT THROUGH ZONE 'K' CONTACTOR IN ELECTRICAL ROOM.
- 4 ROUTE CIRCUIT THROUGH ZONE 'L' CONTACTOR IN ELECTRICAL ROOM.
- 5 PROVIDE MULTIPLE CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.
- 6 PROVIDE 2000 WATT DIMMER SWITCH. COORDINATE SWITCH LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN. ROUTE CIRCUIT THROUGH ZONE 'L' CONTACTOR IN ELECTRICAL ROOM.

REFERENCE DWG NOTES

1. THIS IS AN EXISTING LIGHTING DRAWING BEING PROVIDED FOR REFERENCE PURPOSES ONLY. THE DRAWING IS BEING PROVIDED TO ASSIST IN THE PREPARATION OF BIDS FOR THE NEW PROPOSED DIGITAL LIGHTING CONTROL SYSTEM.

BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.

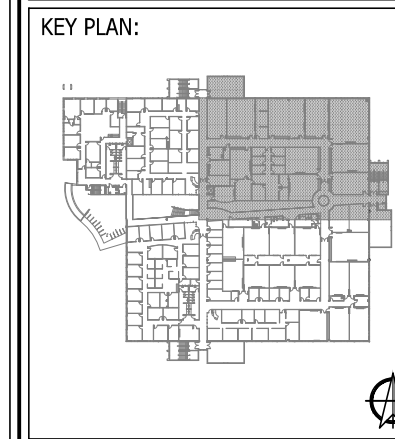


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SEAL:

DRAWING TITLE:
**PARTIAL
SECOND FLOOR
LIGHTING PLAN**

SCALE: 1/8" = 1'-0" NORTH:

DRAWING NUMBER:

E2.6



EXISTING GENERAL NOTES

1. ALL FIXTURES SHALL BE TYPE 'A' U.O.N.
2. PROVIDE SWITCHING AS NECESSARY TO ACCOMMODATE SWITCHING FUNCTION AS INDICATED ON FLOOR PLAN.
3. ALL EMERGENCY FIXTURES AND EXIT SIGNS SHALL BE CONNECTED TO A LOCAL (WITHIN SAME ROOM) LIGHTING CIRCUIT AHEAD OF SWITCHING.

EXISTING KEYED NOTES

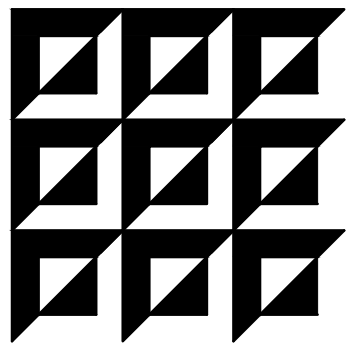
- 1 JUNCTION BOXES FOR OCCUPANCY SENSORS AND SWITCH PACKS. PROVIDE 1 (ONE) NOVITAS, INC. MODEL # 01-300 SENSOR AND 3 (THREE) MODEL # 13-051 SWITCHPACKS. PROVIDE ALL COMPONENTS (JUNCTION BOXES, TRANSFORMERS, DEVICES, CONDUITS, CONTROL WIRING, ETC.) NECESSARY FOR CONTROL.
- 2 LIGHTING CONTROL STATION. CONTROL STATION SHALL CONTROL LIGHTING CONTROL PANEL. SWITCHES SHALL BE PROVIDED BY CONTROLS CONTRACTOR. COORDINATE ZONING AND LABELING WITH CONTROLS CONTRACTOR.
- 3 ROUTE CIRCUIT THROUGH ZONE 'P' CONTACTOR IN ELECTRICAL ROOM.
- 4 ROUTE CIRCUIT THROUGH ZONE 'N' CONTACTOR IN ELECTRICAL ROOM.
- 5 PROVIDE MULTIPOLE CONTACTORS FOR CONTROL OF LIGHTING ZONES. REFER TO LIGHTING ZONE SCHEDULE. PROVIDE NUMBER OF POLES / CONTACTS AS REQUIRED. COORDINATE EXACT NUMBER AND LOCATION WITH CONTROLS CONTRACTOR PRIOR TO ROUGH-IN.

REFERENCE DWG NOTES

1. THIS IS AN EXISTING LIGHTING DRAWING BEING PROVIDED FOR REFERENCE PURPOSES ONLY. THE DRAWING IS BEING PROVIDED TO ASSIST IN THE PREPARATION OF BIDS FOR THE NEW PROPOSED DIGITAL LIGHTING CONTROL SYSTEM.

BASE BID SCOPE OF WORK NOTES

1. THE BASE BID FOR THIS PROJECT INCLUDES LIGHTING CONTROL AND HVAC DDC CONTROL MODIFICATIONS TO ONLY THE AREAS OF THE BUILDING DENOTED AS BASE BID ON DRAWINGS ME 2.9 AND ME 2.10.



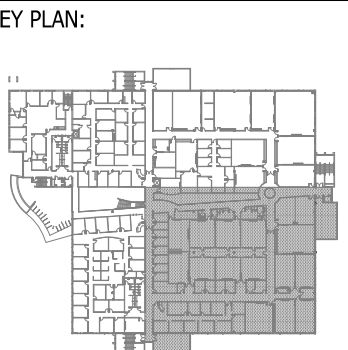
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SEAL:

DRAWING TITLE:
**PARTIAL
SECOND FLOOR
LIGHTING PLAN**

SCALE:
1/8" = 1'-0"
NORTH:
DRAWING NUMBER:

E2.7

