

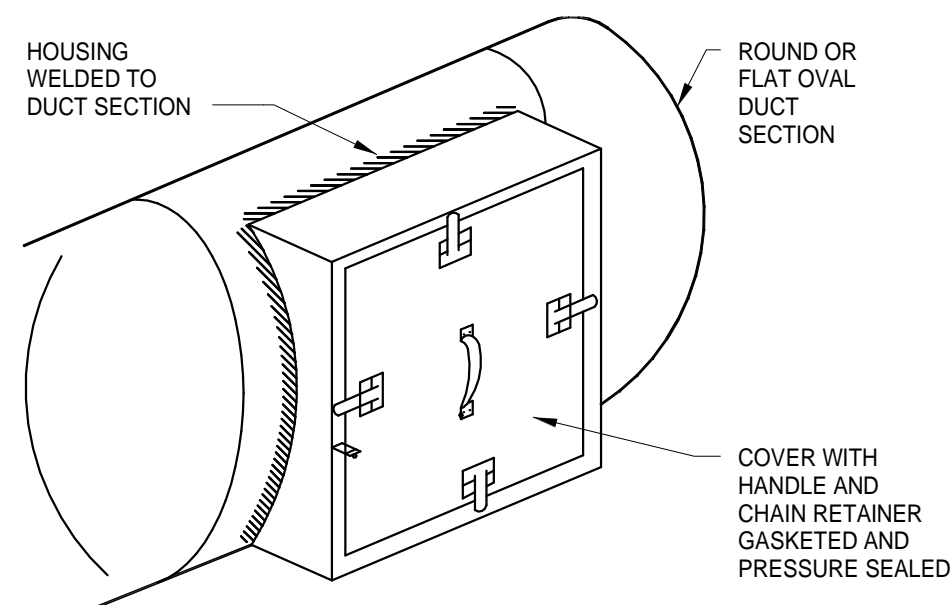
NOTES:  
SEE SPECIFER FOR DETAILED  
HANGER REQUIREMENTS

SIDE VIEW TRAPEZE HANGER FOR UP  
TO 1000 LB. (453KG) UNIFORM LOAD

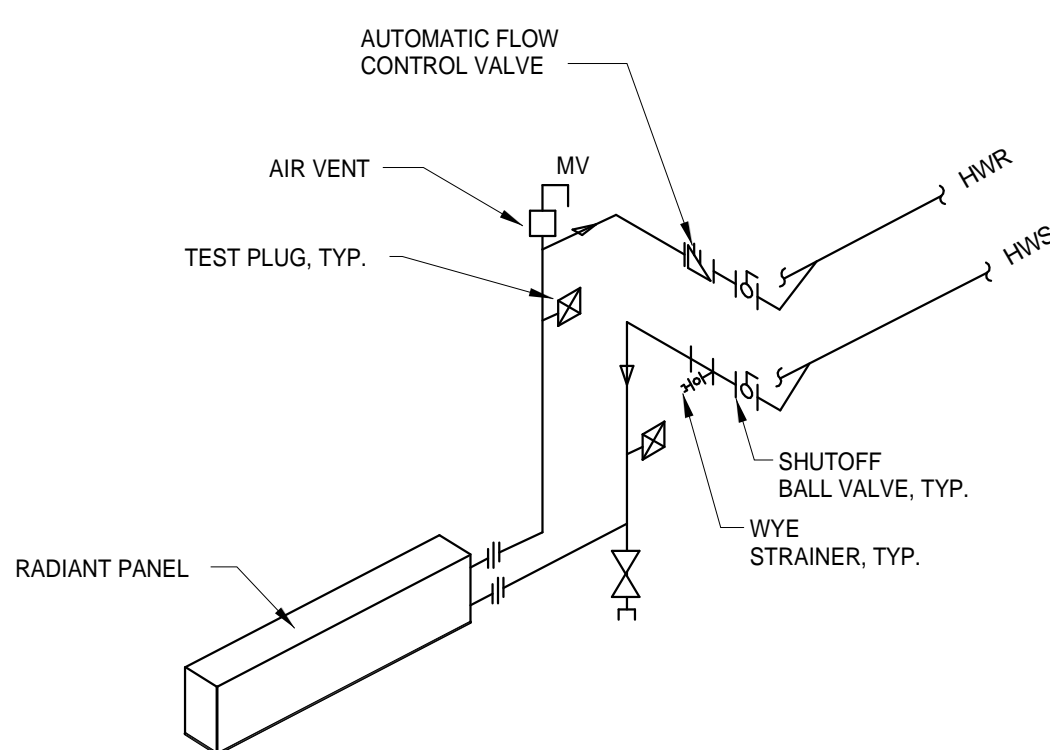
MAXIMUM PIPE/TUBING SUPPORT SPACING																							
NOM. SIZE	IN. [mm]	THRU 3/4 THRU [20]	1 [25]	1 1/4 [32]	1 1/2 [40]	2 [50]	2 1/2 [65]	3 [75]	4 [100]	5 [125]	6 [150]	8 [200]	10 [250]	12 [300]	14 [350]	16 [400]	18 [450]	20 [500]	24 [600]				
PIPE	FT. [mm]	5 FT. [1500]	6 [1800]	7 [2100]	8 [2400]	10 [3000]	11 [3400]	12 [3700]	14 [4100]	16 [4900]	17 [5200]	19 [5800]	22 [6700]	23 [7000]	25 [7600]	27 [8200]	28 [8500]	30 [9100]	32 [9900]				
TUBING	FT. [mm]	5 FT. [1500]	6 [1800]	7 [2100]	8 [2400]	10 [3000]	11 [3400]	12 [3700]	14 [4100]	16 [4900]	17 [5200]	19 [5800]	22 [6700]	23 [7000]	25 [7600]	27 [8200]	28 [8500]	30 [9100]	32 [9900]				

NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

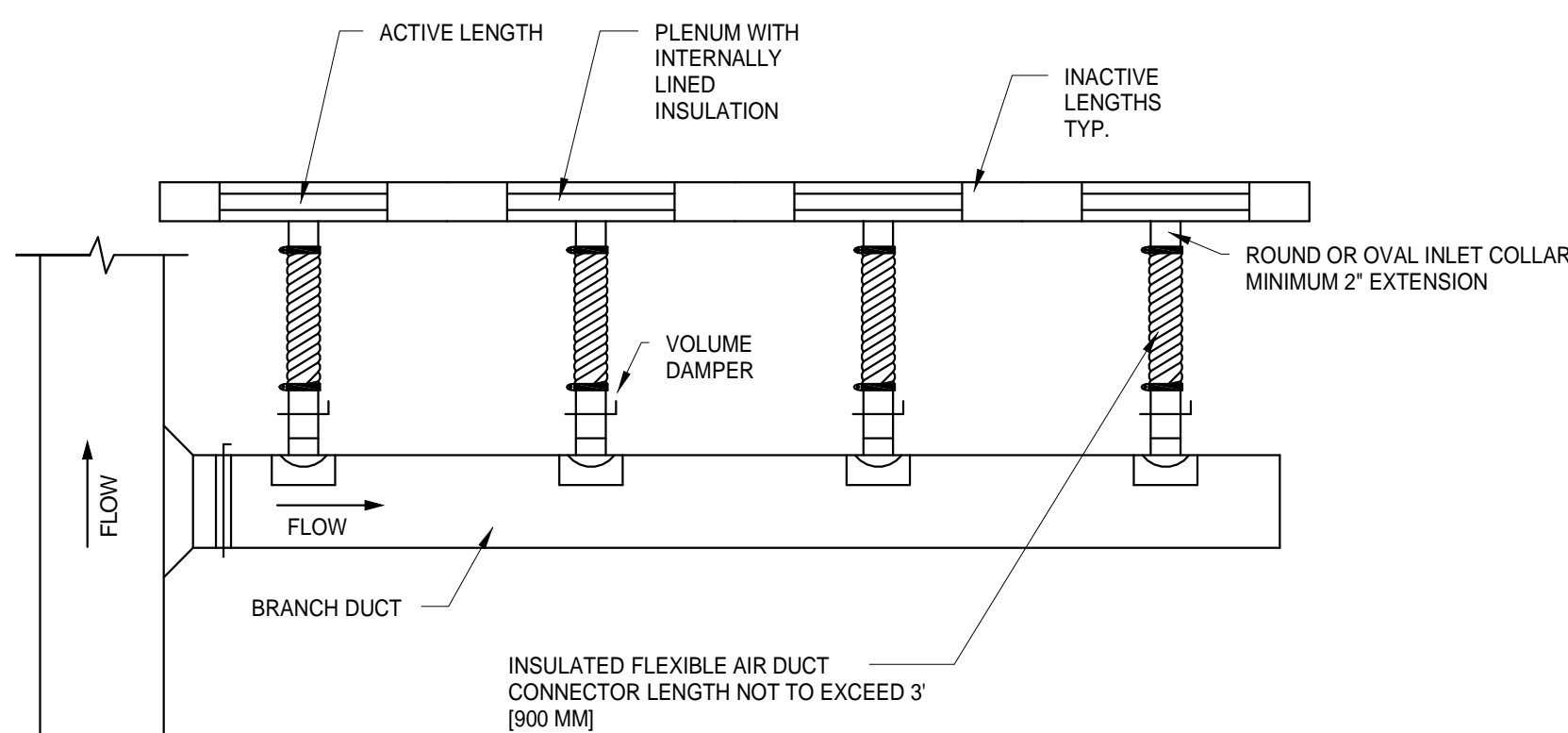
## 10 PIPE HANGERS N.T.S.



## 11 ACCESS SECTION FOR ROUND/OVAL DUCT N.T.S.

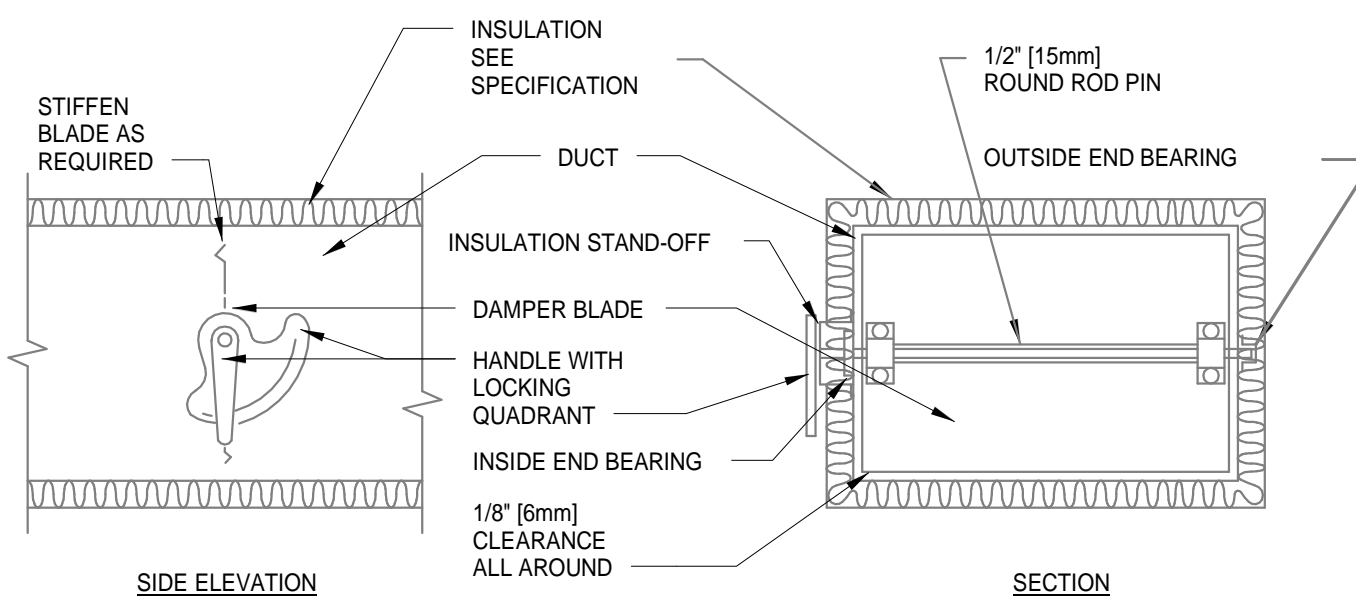


## 12 HYDRONIC RADIANT PANEL - PIPING CONNECTIONS N.T.S.



- NOTES:
- COORDINATE SLOT DIFFUSER FRAME/BORDER TYPE AND END BORDER CONFIGURATION WITH CEILING TYPE.

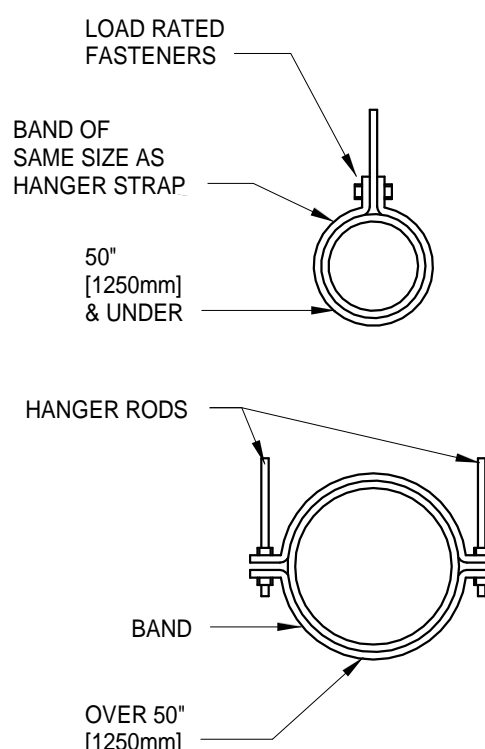
## 13 LINEAR SLOT DIFFUSER N.T.S.



NOTE:

- DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
- DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

## 6 VOLUME DAMPER DETAIL N.T.S.

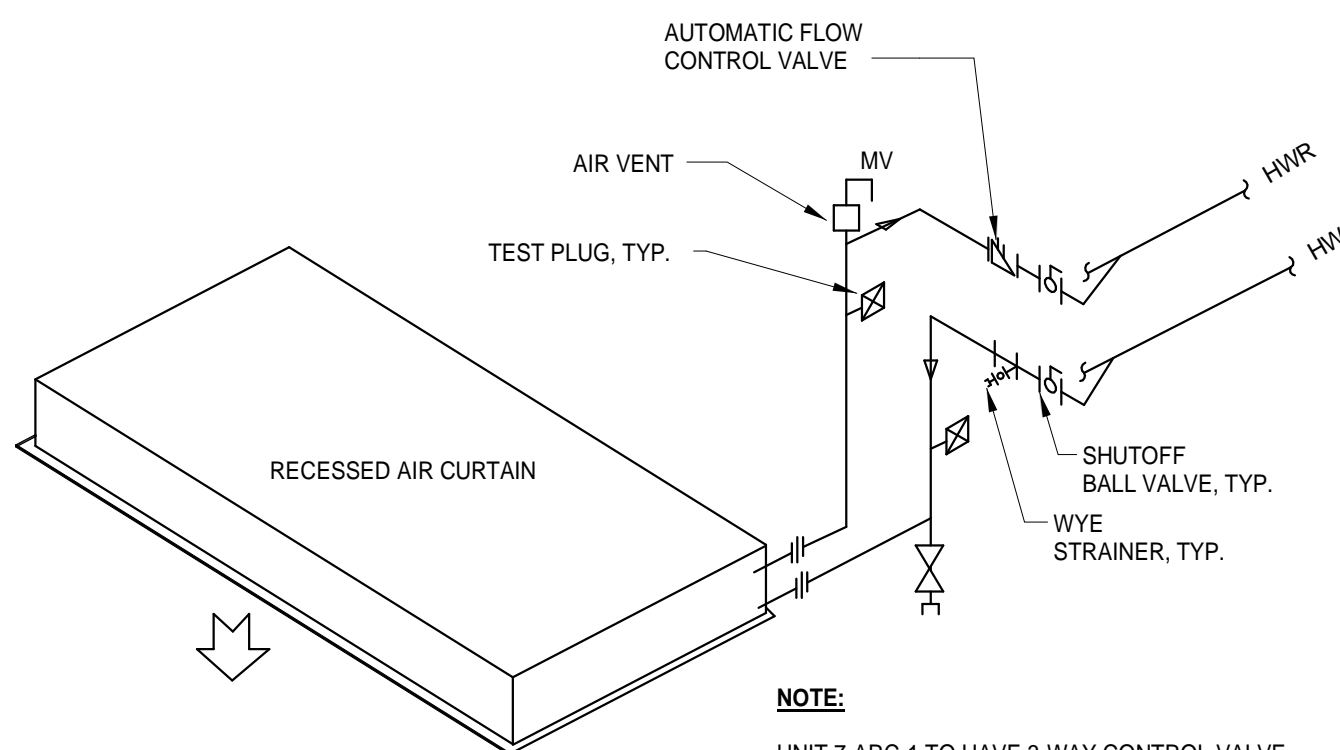


HANGER STRAPS OR RODS			
MAX. DUCT IN. [mm]	QUANTITY/SIZE IN. [mm]	MAX. LOAD LBS. [kg]	MAX. SPACING IN. [mm]
26 [660]	ONE 1 [25] x 22 GA STRAP	260 [119]	144 [3600]
36 [900]	ONE 1 [25] x 18 GA STRAP	420 [190]	144 [3600]
50 [1250]	ONE 1 [25] x 16 GA STRAP	700 [317]	144 [3600]
60 [1500]	TWO 3/8 [10] RODS	1320 [598]	144 [3600]
84 [2100]	TWO 1/2 [13] RODS	2500 [1133]	144 [3600]

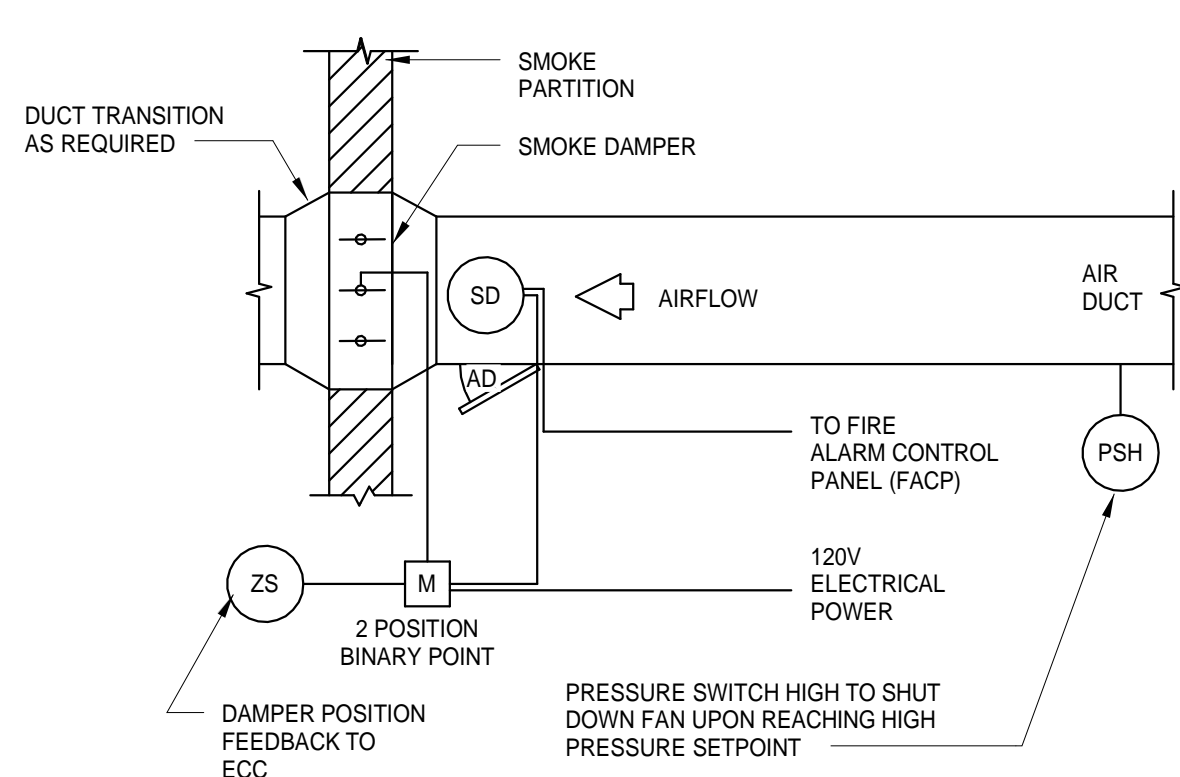
NOTE:

TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING  
AND INSULATION, BUT NO EXTERNAL LOAD.

## 7 ROUND DUCT HANGERS N.T.S.



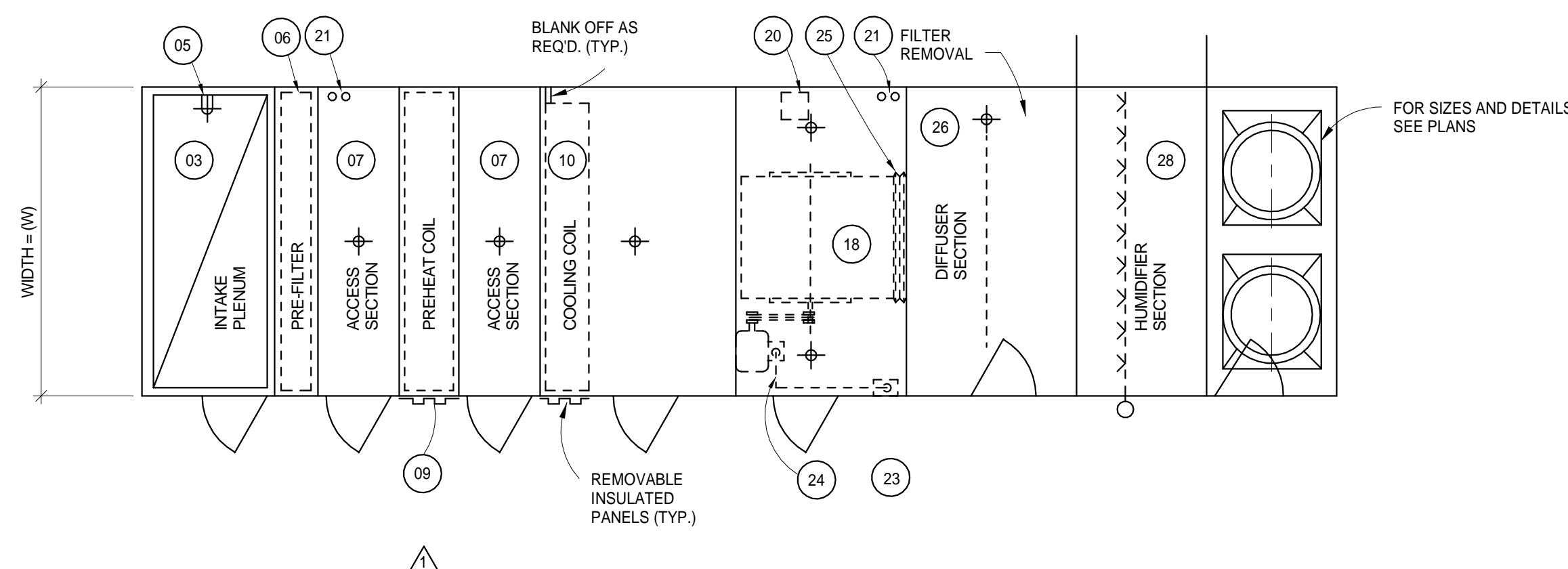
## 8 HYDRONIC AIR CURTAIN - PIPING CONNECTIONS N.T.S.



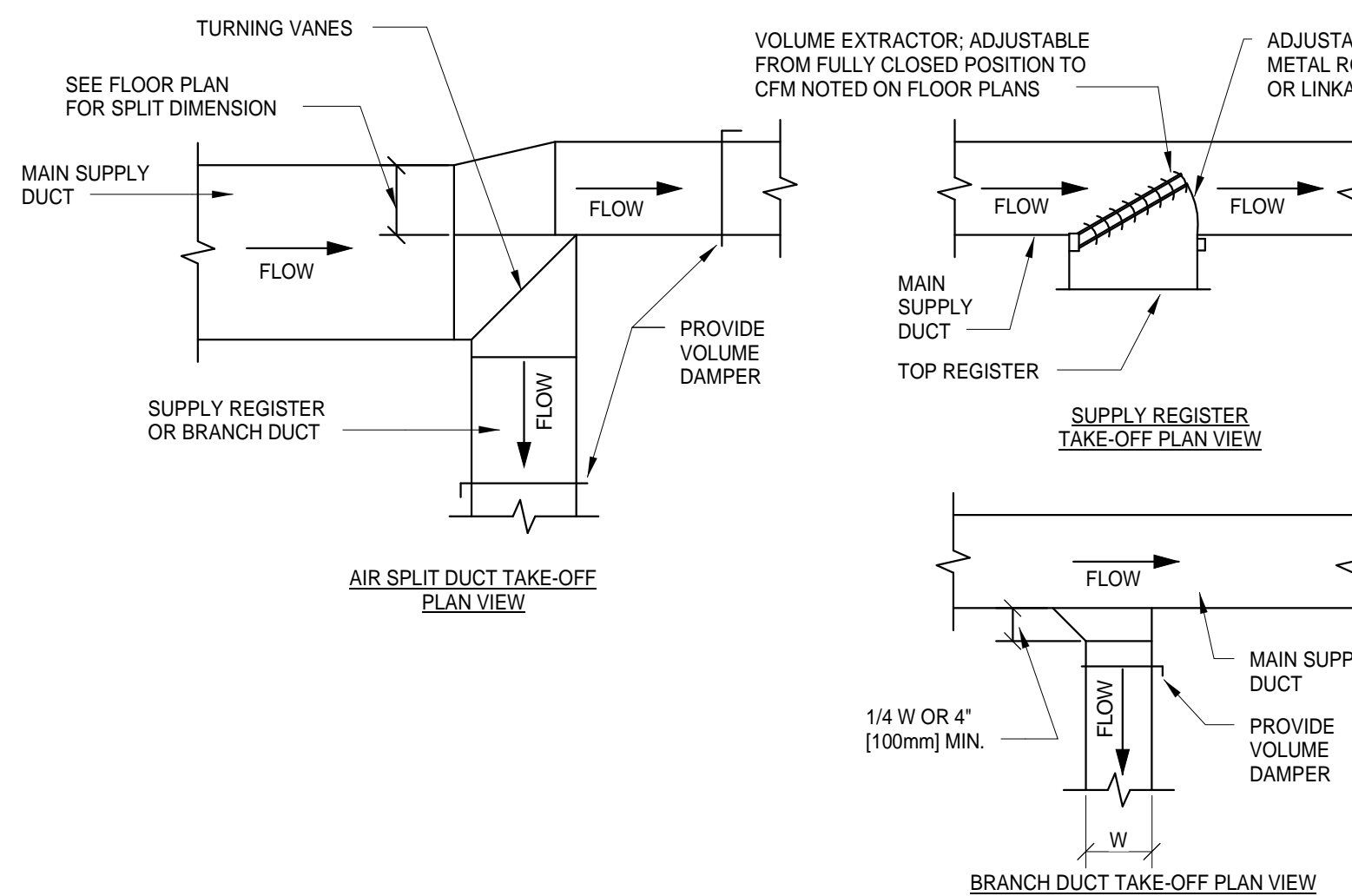
NOTE:

- UPON DETECTION OF SMOKE BY THE SMOKE DETECTOR, THE SMOKE DAMPER SHALL CLOSE & SEND AN ALARM TO THE ECC.

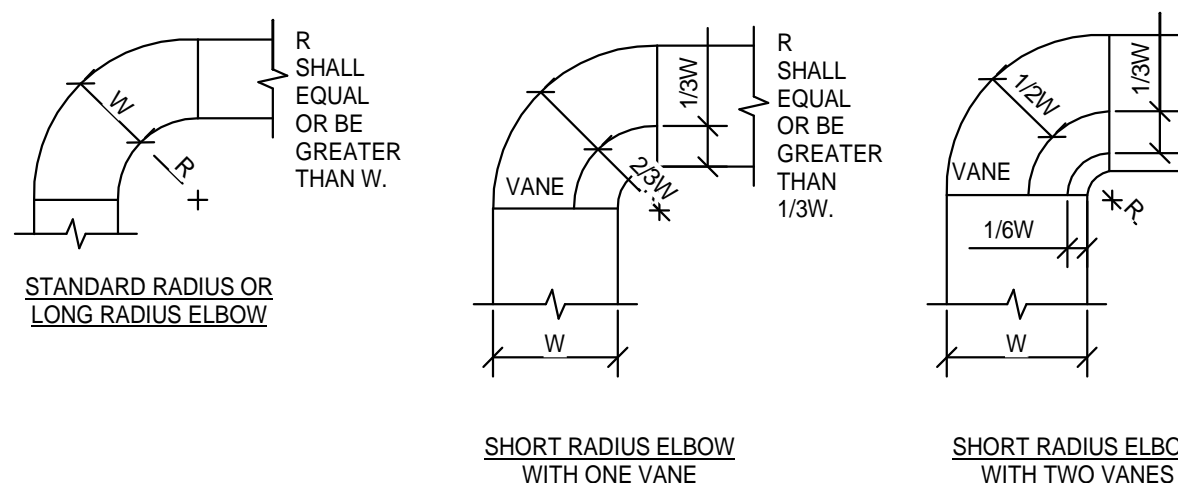
## 9 SMOKE DAMPER CONTROL DIAGRAM N.T.S.



## 1 EXISTING AIR HANDLING UNITS 9310 & 9320 DETAIL (FOR REFERENCE) N.T.S.



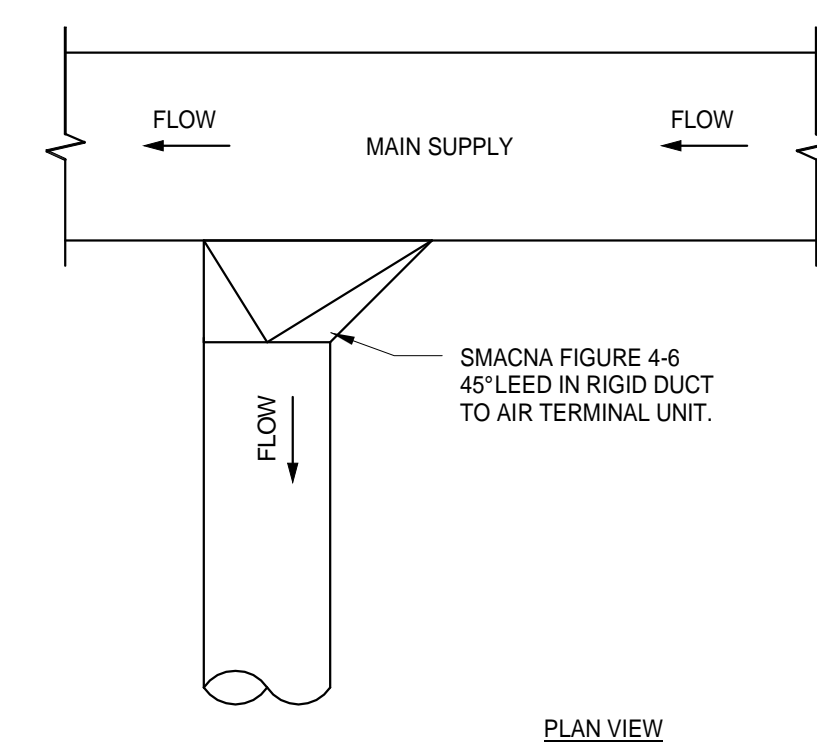
## 4 SUPPLY DUCTWORK TAKE-OFFS N.T.S.



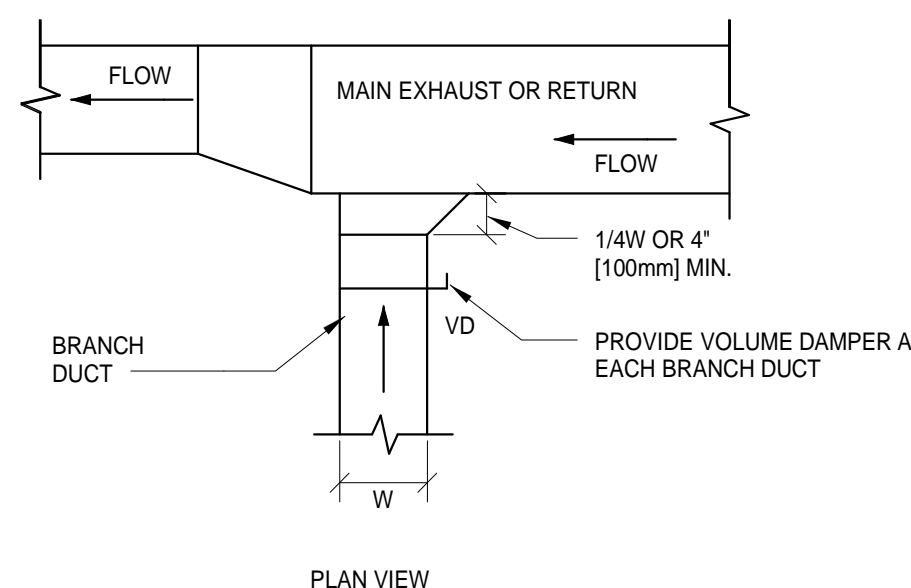
NOTE:

- THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
- ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

## 5 DUCTWORK RADIUS ELBOWS N.T.S.



## 2 ALTERNATE SUPPLY DUCT TAKEOFF - AIR TERMINAL UNITS N.T.S.



## 3 EXHAUST OR RETURN BRANCH DUCTWORK N.T.S.

### LEGEND

- INLET DAMPER. FLANGED DUCT CONNECTION WITH HOLES ON 4 1/2" CENTERS WITH ACTUATORS & POSITIVE POSITIONERS.
- RETURN DAMPER. (SAME AS 01 ABOVE)
- INTAKE PLENUM.
- QUICK OPENING ACCESS DOOR.
- MARINE LIGHT COMPLETE WITH SWITCH MOUNTED ON EXTERIOR AT DOOR.
- PREFILTER.
- ACCESS SECTION COMPLETE WITH 04 & 05 ABOVE. FOR LOCATIONS REFER TO PLANS.
- HEAT RECOVERY COIL SECTION. FACTORY PREPARE COIL TO OUTSIDE CASING. PROVIDE REMOVABLE INSULATED PANELS. REFER TO PLANS FOR CONNECTION LOCATIONS.
- PREHEAT COIL. FACTORY PREPARE COIL AND INSULATE IN ACCORDANCE WITH SPECIFICATIONS TO OUTSIDE CASING. PROVIDE REMOVABLE INSULATED PANELS. REFER TO PLANS FOR CONNECTION LOCATIONS.
- COOLING COIL SECTION WITH 04 & 05 ABOVE. FACTORY PREPARE COIL TO OUTSIDE CASING. PROVIDE REMOVABLE INSULATED PANELS.
- PROVIDE SUPPORTS BELOW CONDENSATE DRAIN TANK TO SUPPORT COOLING COIL.
- 1 1/2" INSULATED CONDENSATE DRAIN LINE. SEE TRAP DETAIL.
- CONDENSATE DRAIN PAN DOUBLE SURFACE INSULATED.
- INTERMEDIATE STAINLESS STEEL COIL DRAIN PAN.
- FACTORY PREPARED 3/4" DRAIN LINES DIRECTLY PIPED TO DRAIN TANK.
- REHEAT COIL. FACTORY PREPARED TO OUTSIDE THE UNIT. PROVIDE REMOVABLE INSULATED PANEL.
- NOT USED
- FAN SECTION WITH 04 & 05 ABOVE.
- OSHA BELT GUARD. REMOVABLE WITH TACHOMETER OPENINGS. (WIRE MESH)
- PRE-WIRED JUNCTION BOX. 115 V-1 PHASE ON TOP OF UNIT CASING FOR SINGLE POINT ELECTRICAL CONNECTION TO SERVE UNITE LIGHTS. (SWITCHES AT EACH DOOR)
- STUB 3/4" CONDUITS THRU TOP OF UNIT CASING TO ACCOMMODATE FIELD INSTALLATION OF CONTROLS. COORDINATE NUMBER & ACTUAL LOCATIONS WITH CONTROL SUBCONTRACTOR.
- VIBRATION ISOLATORS. REFER TO SPECIFICATIONS FOR ISOLATOR REQUIREMENTS.
- DISCONNECT SWITCH INSIDE FAN HOUSING (UNDER DIV. 16 - ELECTRICAL). STUB 1 1/4" CONDUIT THRU TOP OF UNIT CASING TO ACCOMMODATE MAIN POWER FEED. FOR DESCRIPTION REFER TO THE ELECTRICAL SPECIFICATIONS.
- CONDUIT & WIRE. DISCONNECT TO MOTOR. WITH FLEXIBLE CONNECTION AT MOTOR. POWER SUPPLY TO DISCONNECT. WIRE & CONDUIT (UNDER DIV. ELECTRICAL).
- FLEXIBLE CONNECTION.
- DIFFUSER SECTION WITH 04 & 05 ABOVE. PERFORATED DIFFUSER PLATE. LOCATION SHALL BE AS RECOMMENDED BY EQUIPMENT SUPPLIER.
- FINAL FILTER.
- HUMIDIFIER SECTION WITH MANIFOLD STEAM HUMIDIFIER. COORDINATE NUMBER OF MANIFOLD WITH SCHEDULE AND SPECIFICATIONS.
- DISCHARGE PLENUM. WITH 04 & 05.
- DISCHARGE. TYPE I FLANGED OUTLET WITH HOLES ON 4 1/2" CENTERS MINIMUM. TYPE II BELLMOUTH WITH FLANGED OUTLET.
- STRUCTURAL STEEL SUPPORTS.


1		
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3		
4		
5		
Revisions:		Date

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<div>Property of the United States Government</div> <div>For Official Use Only</div> <div>Do not remove this notice</div> <div>Properly Destroy documents when no longer needed</div>		<div>Drawing Title</div> <div>MECHANICAL DETAILS</div>		<div>Project Title</div> <div>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</div>		<div>Date</div> <div>03/01/2016</div>		<div>Office of Facilities Management</div>	
<div>File Name</div>		<div>Approved: Division Chief</div>		<div>Building Number</div>		<div>Checked</div> <div>EJR</div>			
<div>File Location</div>		<div>Approved: Service Director</div>		<div>Location</div> <div>4646 JOHN R. STREET DETROIT, MI 48201</div>		<div>M-500</div>		<div> Department of Veterans Affairs</div>	

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one eighth inch = one foot

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

one eighth inch = one foot

HVAC DESIGN DATA							
DESIGN CONDITION	SUMMER			WINTER			REMARK
	DB TEMP.	WB TEMP.	% HUMIDITY	DB TEMP	DEWPOINT TEMP.	% HUMIDITY	
OUTSIDE	91 F	76 F	50	3 F	3 F		
LOBBY	75 F	62 F	60	70 F	37 F	20	1
WAITING ROOMS	75 F	62 F	60	70 F	37 F	20	1
TOILET ROOMS	NA	NA	NA	68 F	NA	NA	1
CORRIDORS	75 F	62 F	60	70 F	37 F	20	1
VESTIBULES	NA	NA	NA	50 F	NA	NA	1

1. FROM VA HVAC DESIGN MANUAL.

AIR HANDLING UNIT SCHEDULE																		
MARK	LOCATION	AREA AND/OR BUILDING SERVED	TYPE	AIRFLOW TYPE	SUPPLY CFM	EXHAUST CFM	RETURN CFM	SUPPLY FAN MARK	RETURN FAN MARK	EXHAUST FAN MARK	PREFILTER MARK	AFTER FILTER MARK	HEAT RECOVERY MARK	PREHEAT COIL MARK	COOLING COIL MARK	REHEAT COIL MARK	HUMIDIFIER MARK	REMARKS
AH-9310	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	P	VAV	26000 CFM	0 CFM	26000 CFM	SF-9310	RF-9310	---	PF-9310	AF-9310	NA	PH-9310	CC-9310	NA	SH-9310	1
AH-9320	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	P	VAV	26000 CFM	0 CFM	26000 CFM	SF-9320	RF-9320	---	PF-9320	AF-9320	NA	PH-9320	CC-9320	NA	SH-9320	1

1. EXISTING AIR HANDLING UNIT IS TO REMAIN. ENTIRE UNIT TO BE CLEANED. FANS TO BE REPLACED (REFER TO ADDITIONAL SCHEDULES). FILTERS SHALL BE REPLACED AFTER COMPLETION OF CONSTRUCTION.

FAN SCHEDULE																				
MARK	LOCATION	AREA AND/OR BUILDING	SYSTEM AND/OR SERVICE	AIRFLOW		TYPE	TSP	WHEEL	CLASS	FAN ARRANGEMENT, ROTATION, AND DISCHARGE	DIAMETER	MIN % EFF	DRIVE	MAX. RPM	MOTOR ELECTRICAL				REMARKS	
				PRESENT	FUTURE										POWER		PHASE	VOLTS		SPEED CONTROL
															BHP	HP				
RF-9310	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	AH-9310	26200 CFM	26000	INLINE	2.00 in-wg	AF/SW	I	ARR. 9	40"	65	BELT	1100	16.19	20.00	3	460 V	VFD	1, 2
RF-9320	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	AH-9310	25600 CFM	26000	INLINE	2.00 in-wg	AF/SW	I	ARR. 9	40"	65	BELT	1100	16.19	20.00	3	460 V	VFD	1, 2
SF-9310	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	AH-9320	26200 CFM	26000	CENTRIFUGAL	5.50 in-wg	AF/DW	II	CCW/THD	30"	65	BELT	1800	31.42	40.00	3	460 V	VFD	1, 3
SF-9320	MECH. RM. A8001	ZONE 5 - SOUTH LOBBY	AH-9320	25600 CFM	26000	CENTRIFUGAL	5.50 in-wg	AF/DW	II	CCW/THD	30"	65	BELT	1800	31.42	40.00	3	460 V	VFD	1, 3

1. PROVIDE WITH VFD.
2. PROVIDE WITH SPRING ISOLATORS.
3. FANS MUST COME SHIPPED READY FOR INSTALL INTO EXISTING AHU. PROVIDE WITH EQUIPMENT BASE AND SPRING ISOLATORS.

HOT WATER RADIANT PANEL SCHEDULE									
MARK	LOCATION	AREA AND/OR BUILDING	TYPE	SIZE	TOTAL MIN CAPACITY	EWI	FLOW	WPD	REMARKS
5-RP-1	CORRIDOR CC191	ZONE 5 - SOUTH LOBBY	FLOOR MTD.	34'-0"	1118.0 Btu/h	180 F	3.5 GPM	3.00 in-wg	1, 2, 3, 4
5-RP-2	VESTIBULE A1002	ZONE 5 - SOUTH LOBBY	FLOOR MTD.	11'-0"	610.0 Btu/h	180 F	0.6 GPM	0.50 in-wg	1, 2, 3, 4
5-RP-3	VESTIBULE A1002	ZONE 5 - SOUTH LOBBY	FLOOR MTD.	11'-0"	610.0 Btu/h	180 F	0.6 GPM	0.50 in-wg	1, 2, 3, 4
5-RP-4	LOBBY CA110	ZONE 5 - SOUTH LOBBY	FLOOR MTD.	28'-0"	1118.0 Btu/h	180 F	3.0 GPM	1.75 in-wg	1, 2, 3, 4
5-RP-5	LOBBY CA110	ZONE 5 - SOUTH LOBBY	FLOOR MTD.	10'-0"	1118.0 Btu/h	180 F	1.0 GPM	0.25 in-wg	1, 2, 3, 4

1. BASIS OF DESIGN - RUNTAL RF OR RFP PANELS. UNITS TO BE MOUNTED TO FLOOR.
2. PROVIDE WITH UNIT MOUNTED THERMOSTATS.
3. UNITS SHALL BE CONNECTED TO EXISTING BMS.
4. STANDARD COLOR SELECTED BY ARCHITECT.

INFRARED HEATER SCHEDULE (ELECTRIC)									
MARK	LOCATION	AREA AND/OR BUILDING	TYPE	SIZE	CAPACITY (KW)	POWER SUPPLY			REMARKS
						AMP	PHASE	VOLT	
5-IRH-1	CANOPY	ZONE 5 - SOUTH LOBBY	PANEL	33' x 15' x 11'	5.00	12.00	3	480	1, 2, 3, 4
5-IRH-2	CANOPY	ZONE 5 - SOUTH LOBBY	PANEL	33' x 15' x 11'	5.00	12.00	3	480	1, 2, 3, 4

1. BASIS OF DESIGN - RAYWALL MODEL 342-A30-THSS AND 463-60-THSS.
2. PROVIDE WITH FACTORY PRE-WIRED CONTROL PANEL, 120V CONTROL SYSTEM. BASED ON RAYWALL MODEL FPC4110
3. PROVIDE WITH RECESSED FRAME. UNITS TO BE RECESSED IN CANOPY CEILING.
4. UNITS SHALL BE CONNECTED TO EXISTING BMS AND RUN WHEN OUTDOOR AIR TEMPERATURE FALLS BELOW 35F (ADJ.).

HYDRONIC AIR CURTAIN SCHEDULE															
MARK	LOCATION	AREA AND/OR BUILDING SERVED	TYPE	NOZZLE WIDTH	CFM	GPM	EWI	LWT	TOTAL HEATING CAPACITY (MBH)	WPD	POWER SUPPLY			WEIGHT	REMARKS
5-ARC-1	VESTIBULE A1002	ZONE 5 - SOUTH LOBBY	IN-CEILING	48"	1600	1.0	180 F	160 F	48.5	1.0	1/2	1	208	152 LBS	1, 2, 3, 4
5-ARC-2	VESTIBULE A1002	ZONE 5 - SOUTH LOBBY	IN-CEILING	48"	1600	6.0	180 F	160 F	48.5	1.0	1/2	1	208	152 LBS	1, 2, 3, 4
7-ARC-1	VESTIBULE CC200	ZONE 7 - SOUTH ENTRY	IN-CEILING	72"	4144	9.0	180 F	160 F	81.4	1.0	2 @ 1/2	1	208	233 LBS	1, 2, 3, 4

1. BASIS OF DESIGN - BERNER MODEL ARC12-1048W, AND ARC12-2072W.
2. UNIT TO BE ACTIVATED UPON OPENING OF AUTOMATIC DOOR AND RUN FOR 1 MINUTE (ADJ.). UNIT SHALL BE ACTIVATED UPON DROP IN SPACE TEMPERATURE BELOW 60F (ADJ.). PROVIDE WITH NECESSARY OPTIONS.
3. UNIT TO BE TIED TO EXISTING BMS. PROVIDE WITH NECESSARY OPTIONS.
4. STANDARD COLOR SELECTED BY ARCHITECT.

AIR DEVICE SCHEDULE (LINEAR)															
MARK	TYPE	AIR FLOW		MAX APD	# OF SLOTS	SLOT WIDTH	BORDER	LENGTH	NECK SIZE	THROW PATTERN	THROW TYPE	NC	DAMPER	FINISH	REMARKS
LD-1	CEILING LINEAR SLOT	0 CFM	250 CFM	0.20 in-wg	2	3/4"	FLUSH	5'-0"	SEE DUCT	HORIZONTAL	2-WAY	30	NO	WHITE	1, 2, 3
LD-2	SIDEWALL LINEAR BAR	0 CFM	350 CFM	0.20 in-wg	--	2 1/2"	HIDDEN FLANGE	5'-0"	SEE DUCT	HORIZONTAL	1-WAY	30	NO	ANOD. ALUM.	1, 2, 3
LD-8	1/2" x 1/2" GRID	100 CFM	300 CFM	0.15 in-wg			LAY-IN	24" x 24"	10"			30	NO	WHITE	1, 2, 3
LD-9	LOUVER	0 CFM	200 CFM	0.15 in-wg			LAY-IN	24" x 24"	8"			30	NO	WHITE	1, 2
LD-10	1/2" x 1/2" GRID	100 CFM	300 CFM	0.15 in-wg			LAY-IN	24" x 24"	10"			30	NO	WHITE	1, 2, 3
LD-12	1/2" x 1/2" GRID	0 CFM	100 CFM	0.15 in-wg			LAY-IN	8" x 8"	6"			30	NO	WHITE	1, 2, 3
LD-13	LOUVER	0 CFM	200 CFM	0.15 in-wg			LAY-IN	24" x 24"	8"			30	NO	WHITE	1, 2

1. PROVIDE ALL SPECIALTIES, FRAMES, TRIM, AND CORNER PIECES FOR COMPLETE CONTINUOUS APPEARANCE.
2. CONTRACTORS RESPONSIBLE FOR CUSTOM SHEET METAL SUPPLY AIR PLENUMS. PLENUMS TO BE INSULATED AND PAINTED BLACK.
3. PROVIDE WITH BORDER FOR HIDDEN FLANGE INSTALLATION. PROVIDE PROPER SUPPORT FROM THE STRUCTURE. CONCEALED FASTENINGS.

AIR DEVICE SCHEDULE (SUPPLY)											
MARK	TYPE	AIR FLOW		MAX APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	NC	DAMPER	FINISH	REMARKS
		MIN	MAX								

1. PROVIDE ALL SPECIALTIES, FRAMES, AND BORDERS REQUIRED FOR INSTALLATION IN CEILING TYPE INDICATED IN ARCHITECTURAL DOCUMENTS.
2. PROVIDE PROPER SUPPORT FROM THE STRUCTURE.
3. CUSTOM COLOR TO BE SELECTED BY ARCHITECT. COLOR OF AIR DEVICE TO MATCH COLOR OF CEILING.

AIR DEVICE SCHEDULE (EXHAUST)											
MARK	TYPE	AIR FLOW		MAX APD	MOUNTING	PANEL/FRAME SIZE	NECK SIZE	NC	DAMPER	FINISH	REMARKS
		MIN	MAX								

1. PROVIDE ALL SPECIALTIES, FRAMES, AND BORDERS REQUIRED FOR INSTALLATION IN CEILING TYPE INDICATED IN ARCHITECTURAL DOCUMENTS.
2. PROVIDE BLACK COLORED INSULATED PLENUMS.
3. PROVIDE PROPER SUPPORT FROM THE STRUCTURE.

HOT WATER FINNED TUBE RADIATION SCHEDULE												
MARK	LOCATION	AREA AND/OR BUILDING SERVED	TYPE	ENCLOSURE TYPE	MOUNTING	ENCLOSURE LENGTH	CAPACITY (BTU/FT)	TEMPERATURES		GPM	MAX. WPD (FT HD.)	REMARKS
								EWI	LWT			
7-F1-1	CC200	UNIT 7	FLOOR MTD.	FULL COVER	FLOOR	12'-0"	1810	180°F	160°F	2	2	1, 2, 3

1. FIELD-VERIFY ENCLOSURE LENGTHS.
2. BASIS OF DESIGN - RUNTAL RFP SERIES.
3. PROVIDE WITH UNIT MOUNTED THERMOSTAT.

#### HVAC SYMBOLS LEGEND:

SYMBOL	DESCRIPTION
	SUPPLY AIR
	RETURN AIR
	EXHAUST AIR
	HEATING HOT WATER SUPPLY
	HEATING HOT WATER RETURN
	STEAM
	CONDENSATE RETURN
	REFRIGERANT LIQUID
	REFRIGERANT SUCTON
	REFRIGERANT HOT GAS
	MAKE-UP WATER
	EXISTING TO BE REMOVED
	NATURAL GAS
	DIRECTION OF FLOW
	REDUCER OR INCREASE
	TOP CONNECTION, 45 OR 90
	BOTTOM CONNECTION, 45 OR 90
	SIDE CONNECTION
	CAPPED OUTLET
	RISE OR DROP IN PIPE
	UNION
	PIPE UP
	PIPE DOWN
	GATE VALVE
	GLOBE VALVE
	GATE VALVE WITH 3/4" HOSE ADAPTER
	CHECK VALVE
	WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
	WYE STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTION
	FLEXIBLE CONNECTION
	ANGLE GLOBE VALVE
	BUTTERFLY VALVE
	BALL VALVE
	MODULATING CONTROL VALVE
	MODULATING CONTROL BUTTERFLY VALVE
	TWO POSITION CONTROL VALVE
	THREE-WAY MODULATING CONTROL VALVE
	THREE-WAY TWO POSITION CONTROL VALVE
	PRESSURE REGULATING VALVE
	PRESSURE SAFETY VALVE
	AUTOMATIC BALANCING CONTROL VALVE
	WATER BALANCE DEVICE
	BALANCING VALVE
	THERMOMETER
	PRESSURE GAGE
	THERMOSTAT
	HUMIDISTAT
	SENSOR
	PRESSURE SENSOR
	POINT OF CONNECTION

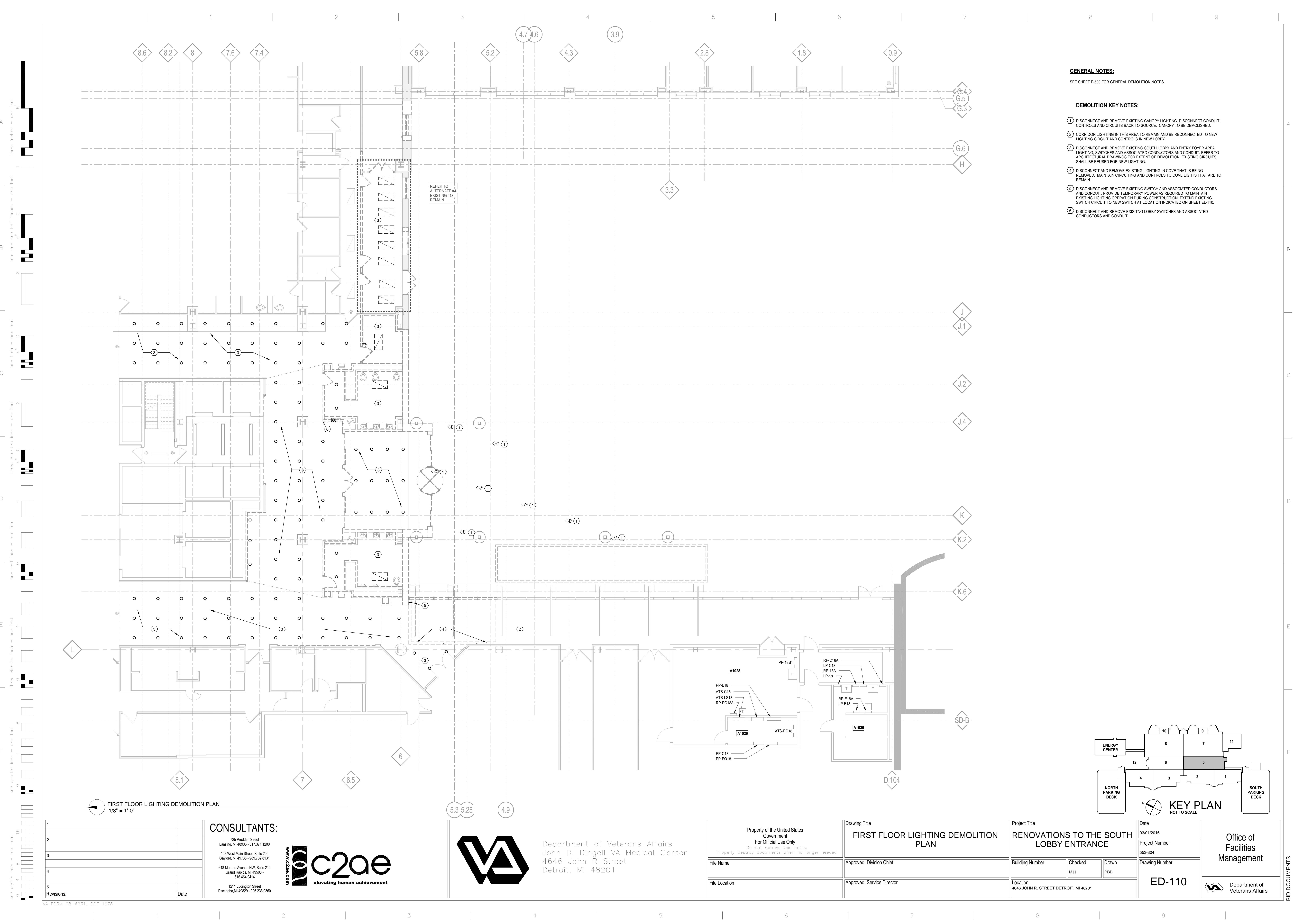
ABBREVIATION	DESCRIPTION
A.L	ACOUSTICALLY LINED
AFF	ABOVE FINISH FLOOR
ADJ	ADJUSTABLE
BDD	BACKDRAFT DAMPER
CA	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CO	COMPRESSED AIR
CND	CLEANOUT
CFM	CONDENSATE RETURN
D	CUBIC FEET PER MINUTE
DB	DRAIN (CONDENSATE)
DB	DRYBULB
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
EFF	EFFICIENCY
EWI	ENTERING WATER TEMPERATURE
EA	EXHAUST AIR
EX	EXISTING
ESP	EXTERNAL STATIC PRESSURE
F&Y	FLOAT AND THERMOSTATIC
FOO	FLOOR CLEANOUT
FD	FIRE DAMPER
FPD	FIRE PROTECTION (DRY)
FPW	FIRE PROTECTION (WET)
G	NATURAL GAS
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
IN WC	INCHES WATER COLUMN
KW	KILOWATTS
LWT	LEAVING WATER TEMPERATURE
LPS	LOW PRESSURE STEAM
MA	MEDICAL AIR
MCA	MINIMUM CIRCUIT AMPACITY
MFS	MAXIMUM FUSE SIZE
MG	MEDICAL GAS
MOCP	MAXIMUM OVERCURRENT PROTECTION
MR	MANUFACTURER'S RECOMMENDATIONS
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTDOOR AIR
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
RBSP	REDUCED PRESSURE BACKFLOW PREVENTER
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
RLA	RUNNING LOAD AMPS
SAN	SANITARY
SOV	SHUTOFF VALVE
SCW	SOFT COLD WATER
STM	STORM
ODL	STORM OVERFLOW
SA	SUPPLY AIR
SD	SMOKE DAMPER
SS	STEAM
MSH	THOUSAND BTU/HR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VENT
VAC	VACUUM
WCO	WALL CLEANOUT
WHA	WATER HAMMER ARRESTER
WB	WET BULB

NOTE: NOT ALL SYMBOLS AND ABBREVIATIONS MAY BE USED.

#### GENERAL NOTES:

1. IF COMPLIANCE WITH TWO OR MORE DIFFERING STANDARDS, REQUIREMENTS, DRAWINGS OR SPECIFICATIONS, OR ANY COMBINATION THEREOF, IS SPECIFIED AND THESE ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT. THE MOST STRINGENT REQUIREMENT WILL BE THE BETTER QUALITY OR GREATER QUANTITY OF WORK, AND WILL TYPICALLY BE THE MORE EXPENSIVE OPTION. REFER UNCERTAINTIES AND REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ENGINEER FOR A DECISION BEFORE PROCEEDING.
2. THE QUANTITY OR QUALITY LEVEL SHOWN OR SPECIFIED SHALL BE THE MINIMUM PROVIDED OR PERFORMED. THE ACTUAL INSTALLATION MAY COMPLY EXACTLY WITH THE MINIMUM QUANTITY OR QUALITY SPECIFIED, OR IT MAY EXCEED THE MINIMUM WITHIN REASONABLE LIMITS TO COMPLY WITH THESE REQUIREMENTS. INDICATED NUMERIC VALUES ARE MINIMUM OR MAXIMUM, AS APPROPRIATE, FOR THE CONTEXT OF REQUIREMENTS. REFER UNCERTAINTIES TO ENGINEER FOR A DECISION BEFORE PROCEEDING.
3. DESIGN DOCUMENTS MUST BE REPRODUCED IN THEIR ENTIRETY, INCLUDING ALL PLANS, SPECIFICATIONS, AND FRONT END DOCUMENTS.
4. ONLY COMPLETE DOCUMENT SETS ARE TO BE DISTRIBUTED TO SUBCONTRACTORS AND SUPPLIERS OF THE CONTRACTOR DURING BIDDING OR CONSTRUCTION.
5. FAILURE TO REVIEW AND COMPLY WITH A FULL SET OF CONTRACT DOCUMENTS WILL NOT BE ACCEPTED AS A VALID REASON FOR FAILURE TO MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
6. ALL MECHANICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH VA HVAC DESIGN MANUAL, LOCAL ORDINANCES, AND LAWS AND SHALL BE OF SIMILAR QUALITY, MATERIAL, AND INSTALLATION METHODOLOGY AS SIMILAR WORK IN EXISTING FACILITY. FOR PURPOSES OF THIS DESIGN, THE CODES FOR THE STATE OF MI WERE USED AS THE BASIS.
7. ALL ABOVE CEILING SYSTEMS AND COMPONENTS (INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, ETC.) SHALL BE COORDINATED SUCH THAT THE SYSTEMS ARE PROPERLY INTEGRATED IN THE SPACE PROVIDED ABOVE CEILING AT THE CEILING HEIGHTS NOTED. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO COORDINATE PATHWAYS WITHIN THE SPACE PROVIDED. CEILING HEIGHTS WILL NOT BE MODIFIED.
8. COORDINATE LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL AND ELECTRICAL PRIOR TO ROUGH-IN. ALL CONFLICTS WITH FINISHES, ADJACENT CONSTRUCTION, AND CONSTRUCTION DOCUMENTS ARE TO GENERATE AN RFI FROM THE MECHANICAL CONTRACTOR TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING AND COMPLETION OF WORK.
9. CEILING CONTRACTOR SHALL FURNISH AND INSTALL HINGED STEEL ACCESS PANELS FOR ALL ABOVE CEILING DAMPERS, VAV BOXES, FILTERS, BALANCING VALVES, AND ISOLATION VALVES IN GYPSUM CEILINGS. PANELS SHALL BE KEYS FOR ACCESS BY MAINTENANCE STAFF ONLY, AND FINISHED WITH WHITE BASED-ON ENAMEL. MECHANICAL CONTRACTOR SHALL CONSOLIDATE ABOVE CEILING ACCESS REQUIREMENTS TO LIMIT PANELS TO NO MORE THAN 25. MECHANICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY ACCESS PANELS AS A RESULT FROM PLAN





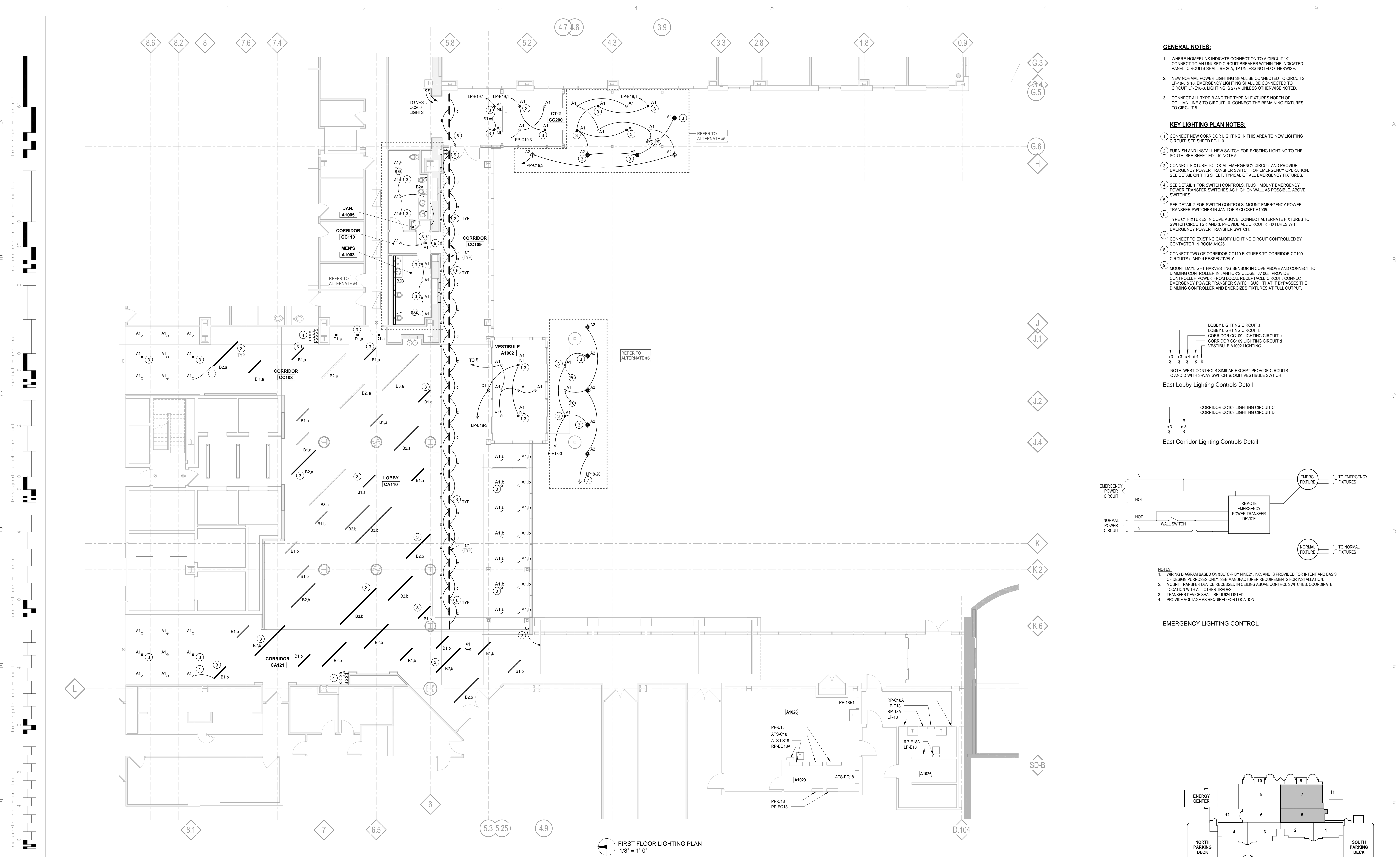
**GENERAL NOTES:**

SEE SHEET E-500 FOR GENERAL DEMOLITION NOTES.

**DEMOLITION KEY NOTES:**

- 1 DISCONNECT AND REMOVE EXISTING CANOPY LIGHTING. DISCONNECT CONDUIT, CONTROLS AND CIRCUITS BACK TO SOURCE. CANOPY TO BE DEMOLISHED.
- 2 CORRIDOR LIGHTING IN THIS AREA TO REMAIN AND BE RECONNECTED TO NEW LIGHTING CIRCUIT AND CONTROLS IN NEW LOBBY.
- 3 DISCONNECT AND REMOVE EXISTING SOUTH LOBBY AND ENTRY FOYER AREA LIGHTING, SWITCHES AND ASSOCIATED CONDUCTORS AND CONDUIT. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF DEMOLITION. EXISTING CIRCUITS SHALL BE REUSED FOR NEW LIGHTING.
- 4 DISCONNECT AND REMOVE EXISTING LIGHTING IN COVE THAT IS BEING REMOVED. MAINTAIN CIRCUITING AND CONTROLS TO COVE LIGHTS THAT ARE TO REMAIN.
- 5 DISCONNECT AND REMOVE EXISTING SWITCH AND ASSOCIATED CONDUCTORS AND CONDUIT. PROVIDE TEMPORARY POWER AS REQUIRED TO MAINTAIN EXISTING LIGHTING OPERATION DURING CONSTRUCTION. EXTEND EXISTING SWITCH CIRCUIT TO NEW SWITCH AT LOCATION INDICATED ON SHEET EL-110.
- 6 DISCONNECT AND REMOVE EXISTING LOBBY SWITCHES AND ASSOCIATED CONDUCTORS AND CONDUIT.

<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>Revisions:</div> <div>Date</div>		<div>CONSULTANTS:</div> <div>725 Prudden Street Lansing, MI 48906 - 517.371.1200</div> <div>123 West Main Street, Suite 200 Gaylord, MI 49735 - 989.732.8131</div> <div>648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414</div> <div>1211 Ludington Street Escanaba, MI 49829 - 906.233.9360</div> <div> <b>c2ae</b> elevating human achievement</div> <div> Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201</div> <div><div>Property of the United States Government For Official Use Only Do not remove this notice. Properly Destroy documents when no longer needed.</div><div>File Name</div><div>File Location</div></div> <div><div>Drawing Title <b>FIRST FLOOR LIGHTING DEMOLITION PLAN</b></div><div>Approved: Division Chief</div><div>Approved: Service Director</div></div> <div><div>Project Title <b>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</b></div><div>Building Number</div><div>Location 4646 JOHN R. STREET DETROIT, MI 48201</div></div> <div><div>Date 03/01/2016</div><div>Project Number 553-304</div><div>Drawing Number <b>ED-110</b></div></div> <div><div>Office of Facilities Management</div><div> Department of Veterans Affairs</div></div>
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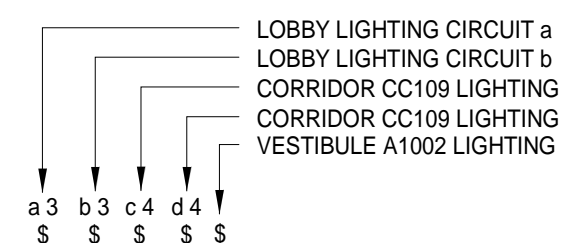


GENERAL NOTES:

- 1. WHERE HOMERUNS INDICATE CONNECTION TO A CIRCUIT "X" CONNECT TO AN UNUSED CIRCUIT BREAKER WITHIN THE INDICATED PANEL. CIRCUITS SHALL BE 20A, 1P UNLESS NOTED OTHERWISE.
- 2. NEW NORMAL POWER LIGHTING SHALL BE CONNECTED TO CIRCUITS LP-18-8 & 10. EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT LP-E18-3. LIGHTING IS 277V UNLESS OTHERWISE NOTED.
- 3. CONNECT ALL TYPE B AND THE TYPE A1 FIXTURES NORTH OF COLUMN LINE 8 TO CIRCUIT 10. CONNECT THE REMAINING FIXTURES TO CIRCUIT 8.

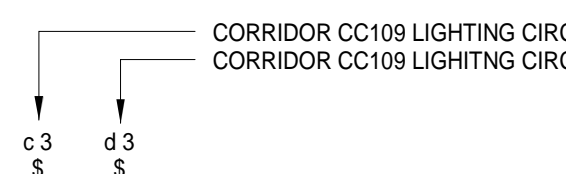
KEY LIGHTING PLAN NOTES:

- 1. CONNECT NEW CORRIDOR LIGHTING IN THIS AREA TO NEW LIGHTING CIRCUIT. SEE SHEET ED-110.
- 2. FURNISH AND INSTALL NEW SWITCH FOR EXISTING LIGHTING TO THE SOUTH. SEE SHEET ED-110 NOTE 5.
- 3. CONNECT FIXTURE TO LOCAL EMERGENCY CIRCUIT AND PROVIDE EMERGENCY POWER TRANSFER SWITCH FOR EMERGENCY OPERATION. SEE DETAIL ON THIS SHEET. TYPICAL OF ALL EMERGENCY FIXTURES.
- 4. SEE DETAIL 1 FOR SWITCH CONTROLS. FLUSH MOUNT EMERGENCY POWER TRANSFER SWITCHES AS HIGH ON WALL AS POSSIBLE. ABOVE SWITCHES.
- 5. SEE DETAIL 2 FOR SWITCH CONTROLS. MOUNT EMERGENCY POWER TRANSFER SWITCHES IN JANITOR'S CLOSET A1005.
- 6. TYPE C1 FIXTURES IN COVE ABOVE. CONNECT ALTERNATE FIXTURES TO SWITCH CIRCUITS c AND d. PROVIDE ALL CIRCUIT c FIXTURES WITH EMERGENCY POWER TRANSFER SWITCH.
- 7. CONNECT TO EXISTING CANOPY LIGHTING CIRCUIT CONTROLLED BY CONTACTOR IN ROOM A1026.
- 8. CONNECT TWO OF CORRIDOR CC110 FIXTURES TO CORRIDOR CC109 CIRCUITS c AND d RESPECTIVELY.
- 9. MOUNT DAYLIGHT HARVESTING SENSOR IN COVE ABOVE AND CONNECT TO DIMMING CONTROLLER IN JANITOR'S CLOSET A1005. PROVIDE CONTROLLER POWER FROM LOCAL RECEPTACLE CIRCUIT. CONNECT EMERGENCY POWER TRANSFER SWITCH SUCH THAT IT BYPASSES THE DIMMING CONTROLLER AND ENERGIZES FIXTURES AT FULL OUTPUT.

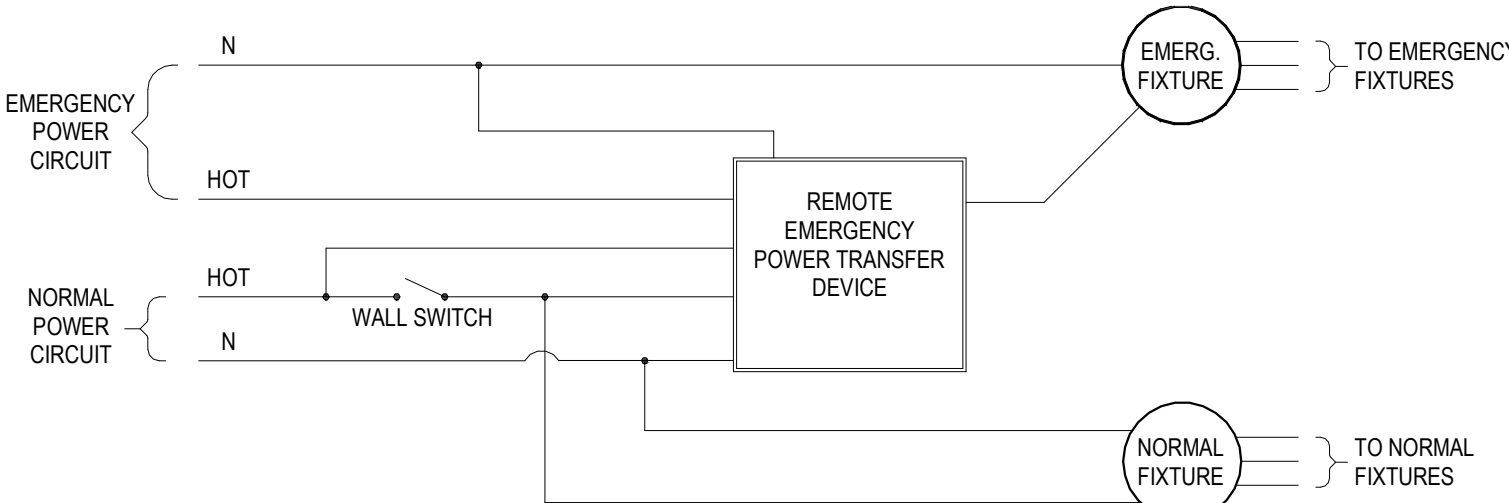


NOTE: WEST CONTROLS SIMILAR EXCEPT PROVIDE CIRCUITS C AND D WITH 3-WAY SWITCH & OMIT VESTIBULE SWITCH

East Lobby Lighting Controls Detail

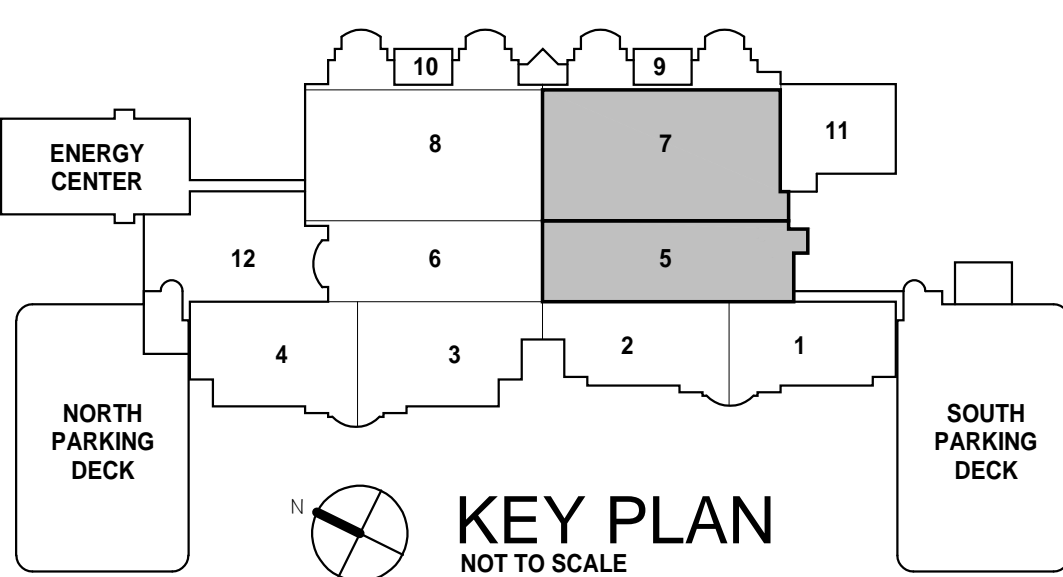


East Corridor Lighting Controls Detail



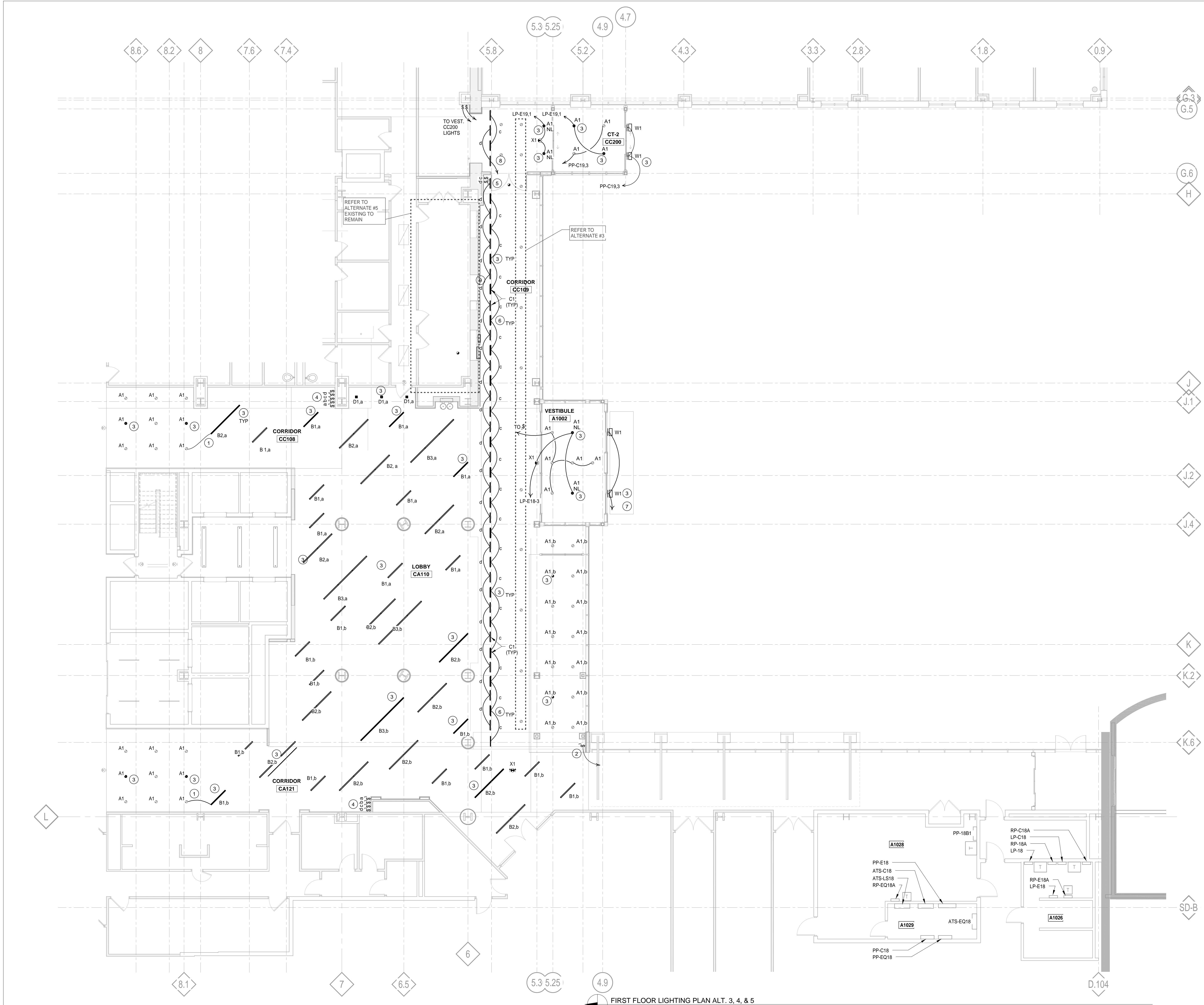
- NOTES:
- 1. WIRING DIAGRAM BASED ON IBC/TC-R BY NINE24, INC. AND IS PROVIDED FOR INTENT AND BASIS OF DESIGN PURPOSES ONLY. SEE MANUFACTURER REQUIREMENTS FOR INSTALLATION.
  - 2. MOUNT TRANSFER DEVICE RECESSED IN CEILING ABOVE CONTROL SWITCHES. COORDINATE LOCATION WITH ALL OTHER TRADES.
  - 3. TRANSFER DEVICE SHALL BE UL924 LISTED.
  - 4. PROVIDE VOLTAGE AS REQUIRED FOR LOCATION.

EMERGENCY LIGHTING CONTROL



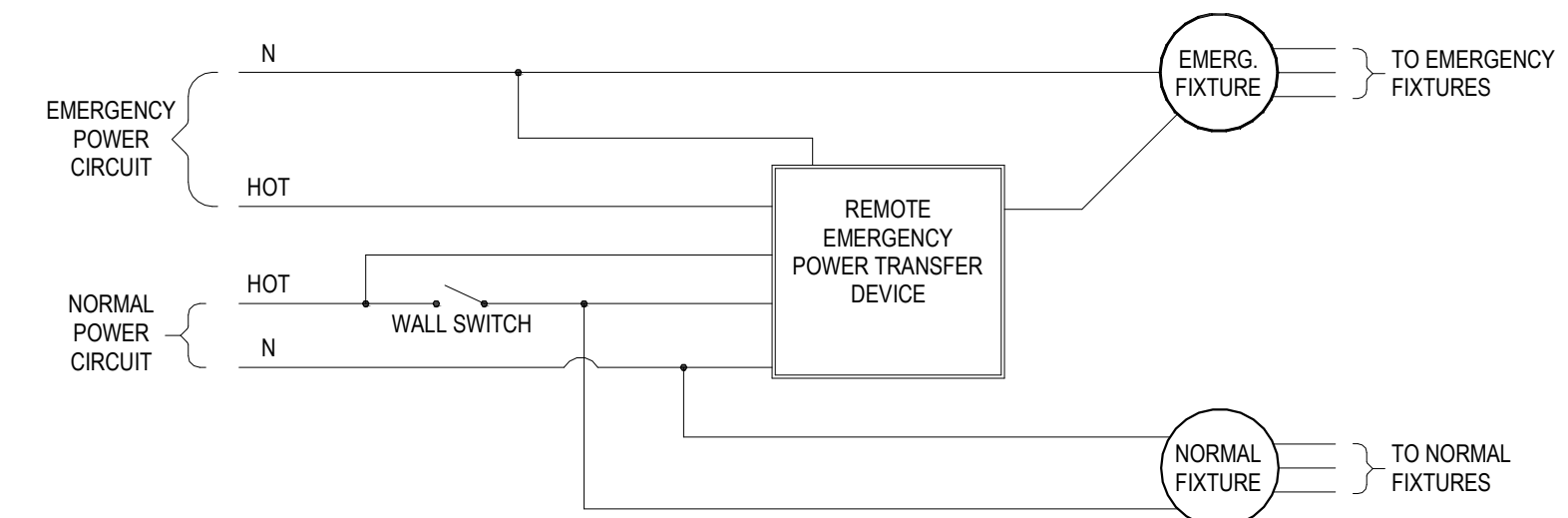
<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>Revisions:</div>	<div>CONSULTANTS:</div> <div>725 Prudden Street Lansing, MI 48206 - 517.371.1200</div> <div>123 West Main Street, Suite 200 Gaylord, MI 49735 - 989.732.8131</div> <div>648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414</div> <div>1211 Ludington Street Escanaba, MI 49829 - 906.233.3360</div> <div> elevating human achievement</div>	<div></div> <div>Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201</div>	<div>Property of the United States Government For Official Use Only Do not remove this notice Properly Destroy documents when no longer needed</div> <div>File Name</div> <div>File Location</div>	<div>Drawing Title</div> <div>FIRST FLOOR LIGHTING PLAN</div> <div>Approved: Division Chief</div> <div>Approved: Service Director</div>	<div>Project Title</div> <div>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</div> <div>Building Number</div> <div>Location 4646 JOHN R. STREET DETROIT, MI 48201</div>	<div>Date</div> <div>03/01/2016</div> <div>Project Number</div> <div>553-304</div> <div>Drawing Number</div> <div>EL-110</div>	<div>Office of Facilities Management</div> <div> Department of Veterans Affairs</div>
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three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



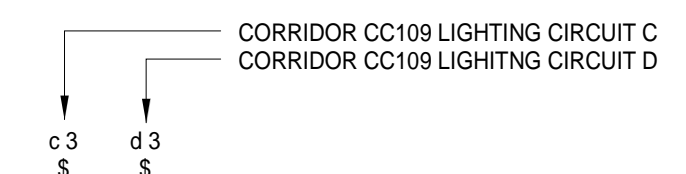
FIRST FLOOR LIGHTING PLAN ALT. 3, 4, & 5  
1/8" = 1'-0"

- GENERAL NOTES:**
- WHERE HOMERUNS INDICATE CONNECTION TO A CIRCUIT "X" CONNECT TO AN UNUSED CIRCUIT BREAKER WITHIN THE INDICATED PANEL. CIRCUITS SHALL BE 20A 1P UNLESS NOTED OTHERWISE.
  - NEW NORMAL POWER LIGHTING SHALL BE CONNECTED TO CIRCUITS LP-18-8 & 10. EMERGENCY LIGHTING SHALL BE CONNECTED TO CIRCUIT LP-E18-3. LIGHTING IS 277V UNLESS OTHERWISE NOTED.
  - CONNECT ALL TYPE B AND THE TYPE A1 FIXTURES NORTH OF COLUMN LINE 8 TO CIRCUIT 10. CONNECT THE REMAINING FIXTURES TO CIRCUIT 8.
- KEY LIGHTING PLAN NOTES:**
- CONNECT NEW CORRIDOR LIGHTING IN THIS AREA TO NEW LIGHTING CIRCUIT. SEE SHEED ED-110.
  - FURNISH AND INSTALL NEW SWITCH FOR EXISTING LIGHTING TO THE SOUTH. SEE SHEED ED-110 NOTE 5.
  - CONNECT FIXTURE TO LOCAL EMERGENCY CIRCUIT AND PROVIDE EMERGENCY POWER TRANSFER SWITCH FOR EMERGENCY OPERATION. SEE DETAIL ON THIS SHEET. TYPICAL OF ALL EMERGENCY FIXTURES.
  - SEE DETAIL 1 FOR SWITCH CONTROLS. FLUSH MOUNT EMERGENCY POWER TRANSFER SWITCHES AS HIGH ON WALL AS POSSIBLE. ABOVE SWITCHES.
  - SEE DETAIL 2 FOR SWITCH CONTROLS. MOUNT EMERGENCY POWER TRANSFER SWITCHES IN JANITOR'S CLOSET A1005.
  - TYPE C1 FIXTURES IN COVE ABOVE. CONNECT ALTERNATE FIXTURES TO SWITCH CIRCUITS c and d. PROVIDE ALL CIRCUIT c FIXTURES WITH EMERGENCY POWER TRANSFER SWITCH.
  - CONNECT TO EXISTING CANOPY LIGHTING CIRCUIT CONTROLLED BY CONTACTOR IN ROOM A1028.
  - CONNECT TWO OF CORRIDOR CC110 FIXTURES TO CORRIDOR CC109 CIRCUITS c and d RESPECTIVELY.
  - MOUNT DAYLIGHT HARVESTING SENSOR IN COVE ABOVE AND CONNECT TO DIMMING CONTROLLER IN JANITOR'S CLOSET A1005. PROVIDE CONTROLLER POWER FROM LOCAL RECEPTACLE CIRCUIT. CONNECT EMERGENCY POWER TRANSFER SWITCH SUCH THAT IT BYPASSES THE DIMMING CONTROLLER AND ENERGIZES FIXTURES AT FULL OUTPUT.

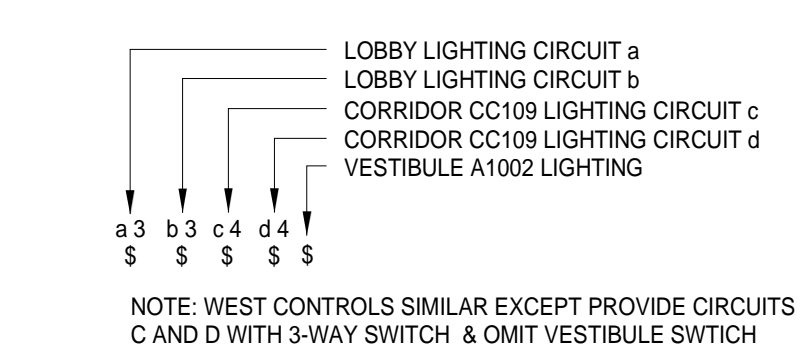


- NOTES:**
- WIRING DIAGRAM BASED ON #BLTC-R BY NINE24, INC. AND IS PROVIDED FOR INTENT AND BASIS OF DESIGN PURPOSES ONLY. SEE MANUFACTURER REQUIREMENTS FOR INSTALLATION.
  - MOUNT TRANSFER DEVICE RECESSED IN CEILING ABOVE CONTROL SWITCHES. COORDINATE LOCATION WITH ALL OTHER TRADES.
  - TRANSFER DEVICE SHALL BE UL324 LISTED.
  - PROVIDE VOLTAGE AS REQUIRED FOR LOCATION.

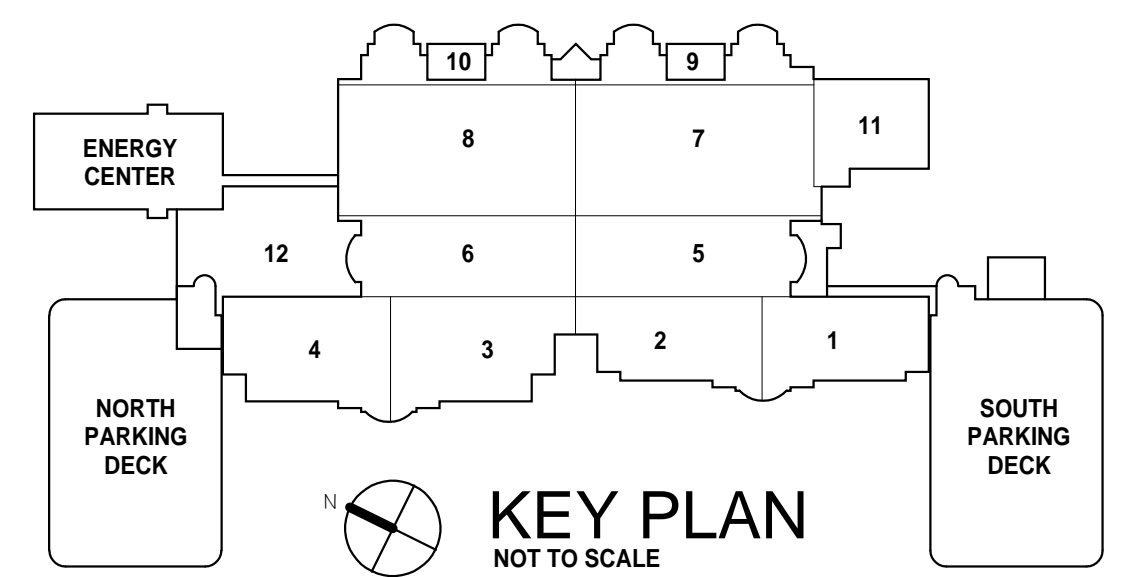
2 EMERGENCY LIGHTING CONTROL Copy 1  
1 1/2" = 1'-0"


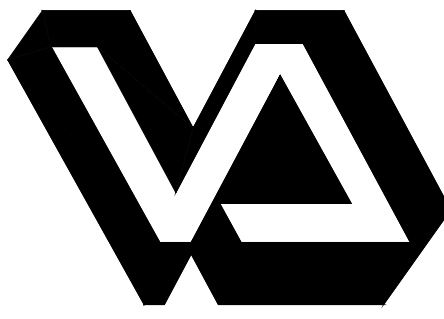



3 East Corridor Lighting Controls Detail  
1/2" = 1'-0"



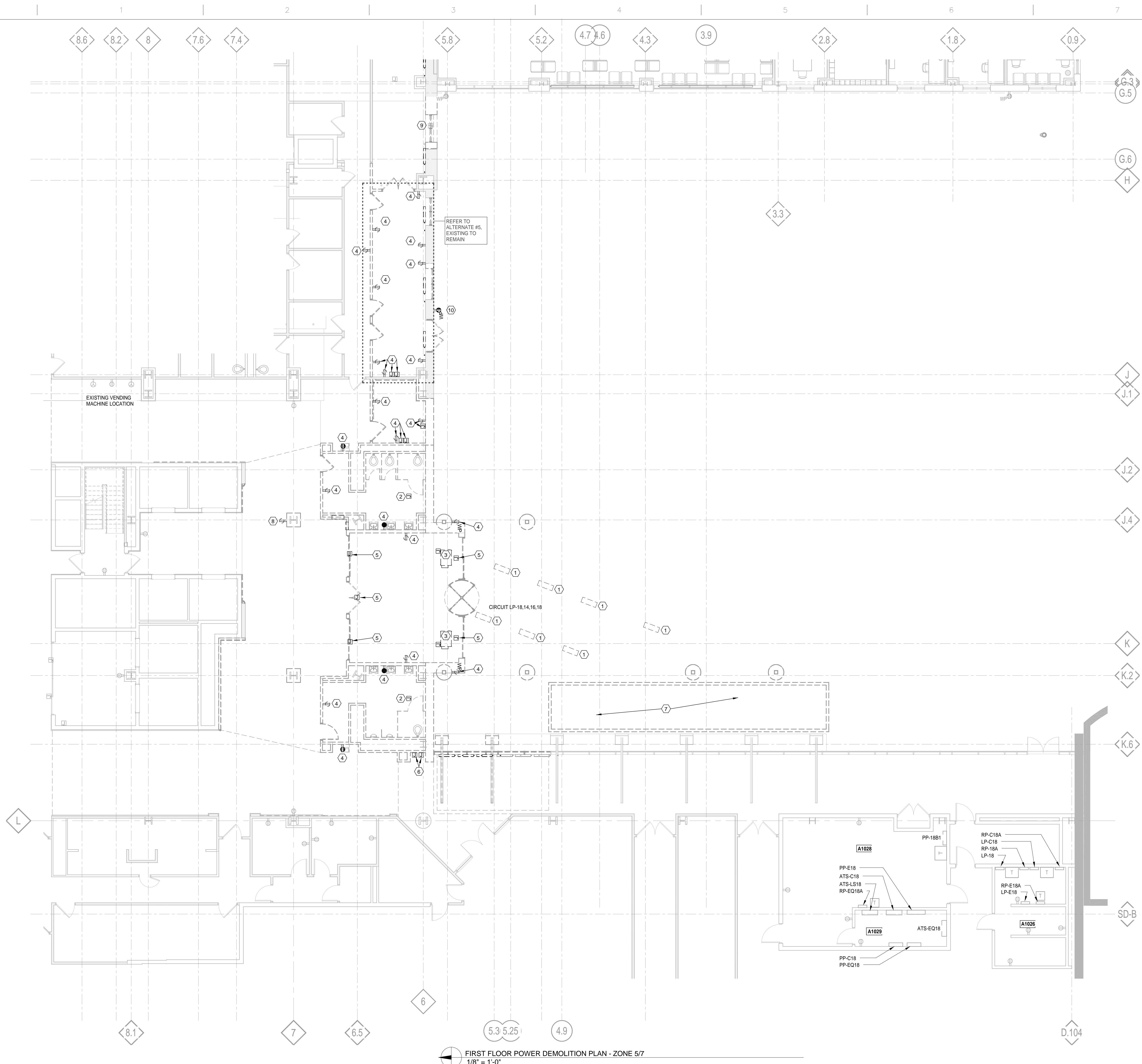
4 East Lobby Lighting Controls Detail  
1/2" = 1'-0"



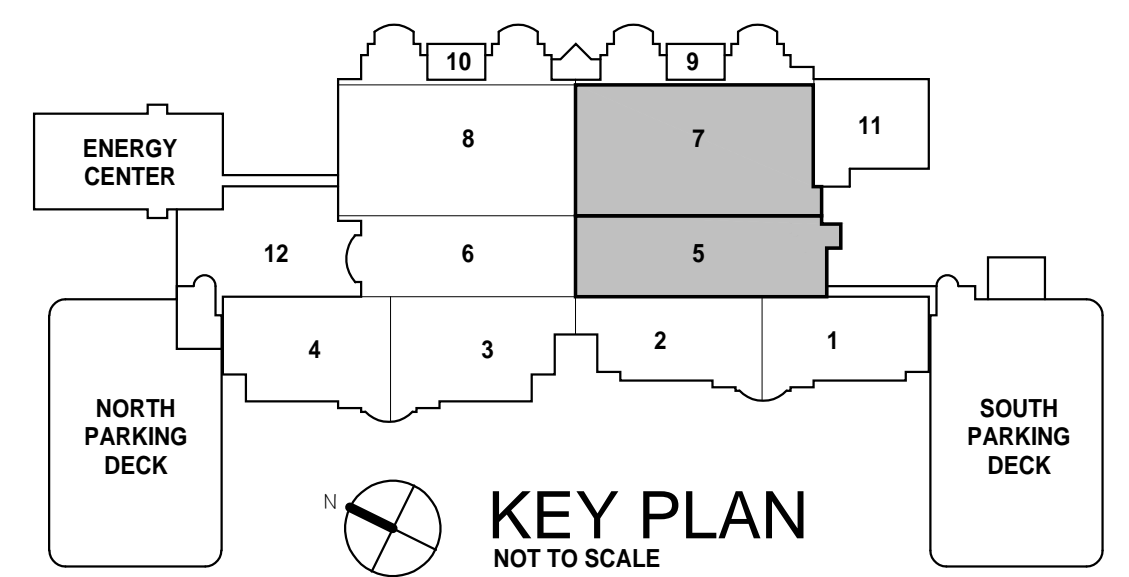
<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>Revisions:</p>	<p>Date</p>	<b>CONSULTANTS:</b>		 <p>www.c2ae.com</p> <p>elevating human achievement</p>	 <p>Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201</p>	Property of the United States Government For Official Use Only <small>Do not remove this notice. Properly Destroy documents when no longer needed.</small>		Drawing Title <b>FIRST FLOOR LIGHTING PLAN ALT.</b>		Project Title <b>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</b>		Date 03/01/2016 Project Number 553-304		Office of Facilities Management  Department of Veterans Affairs			
		File Name				Approved: Division Chief		Building Number		Checked Checker		Drawn Author				Drawing Number <b>EL-110.a</b>	
		File Location				Approved: Service Director		Location 4646 JOHN R. STREET DETROIT, MI 48201									



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one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot



- GENERAL NOTES:**
- SEE SHEET E-500 FOR GENERAL DEMOLITION NOTES.
  - EXISTING ELECTRIC LOADS ARE CIRCUITED TO PANELBOARDS LOCATED IN ROOM A1026, A1028 OR A1029 UNLESS NOTED OTHERWISE.
- KEYED DEMOLITION POWER PLAN NOTES:**
- DISCONNECT AND REMOVE CONDUIT, WIRING AND ASSOCIATED EQUIPMENT TO EXISTING ELECTRIC INFRARED HEATERS.
  - DISCONNECT AND REMOVE CONDUIT, WIRING AND ASSOCIATED EQUIPMENT TO EXISTING ELECTRIC UNIT HEATER.
  - DISCONNECT AND REMOVE CONDUIT, WIRING AND ASSOCIATED EQUIPMENT TO EXISTING CABINET UNIT HEATER.
  - DISCONNECT AND REMOVE EXISTING DEVICE IN WALL TO BE REMOVED AND ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE.
  - DISCONNECT AND REMOVE CONDUIT, WIRING AND ASSOCIATED EQUIPMENT TO EXISTING AUTOMATIC DOOR OPERATORS.
  - DISCONNECT AND RELOCATE EXISTING CONNECTION TO PARKING DECK PAY-ON-FOOT STATION AND CONDUITS TO CONTROL PANEL. EXTEND ALL ASSOCIATED CONDUIT AND WIRING TO NEW LOCATION. MAINTAIN CIRCUITING.
  - DISCONNECT AND REMOVE ALL CONDUIT, WIRING AND ASSOCIATED EQUIPMENT TO EXISTING BUILDING BACK TO SOURCE.
  - DISCONNECT AND REMOVE EXISTING DEVICE. MAINTAIN CIRCUITING FOR CONNECTION TO NEW DEVICE.
  - DISCONNECT EXISTING AUTOMATIC DOOR POWER AND OPERATORS. EXTEND CONDUIT AND WIRING TO NEW AUTOMATIC DOOR LOCATION. SEE SHEET EP-110.
  - DISCONNECT AND REMOVE EXISTING GFI, WP RECEPTACLE AND COVER PLATE. EXTEND EXISTING WIRING TO NEW DEVICE TO BE MOUNTED IN FURRED OUT WALL.



<div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>Revisions:</div>	<div>CONSULTANTS:</div> <div>725 Prudden Street Lansing, MI 48906 - 517.371.1200</div> <div>123 West Main Street, Suite 200 Gaylord, MI 49735 - 888.732.8131</div> <div>648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414</div> <div>1211 Ludington Street Escanaba, MI 49829 - 906.233.9360</div> <div>c2ae elevating human achievement</div>	<div>Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201</div>	<div>Property of the United States Government For Official Use Only Do not remove this notice. Properly Destroy documents when no longer needed</div> <div>File Name</div> <div>File Location</div>	<div>Drawing Title FIRST FLOOR POWER DEMOLITION PLAN</div> <div>Approved: Division Chief</div> <div>Approved: Service Director</div>	<div>Project Title RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</div> <div>Building Number</div> <div>Location 4646 JOHN R. STREET DETROIT, MI 48201</div>	<div>Date 03/01/2016</div> <div>Project Number 553-304</div> <div>Drawing Number ED-111</div>	<div>Office of Facilities Management</div> <div>Department of Veterans Affairs</div>
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**GENERAL NOTES:**

- WHERE HOMERUNS INDICATE CONNECTION TO A CIRCUIT "X", CONNECT TO AN UNUSED CIRCUIT BREAKER WITHIN THE INDICATED PANEL. CIRCUITS SHALL BE 20A, 1P UNLESS NOTED OTHERWISE.

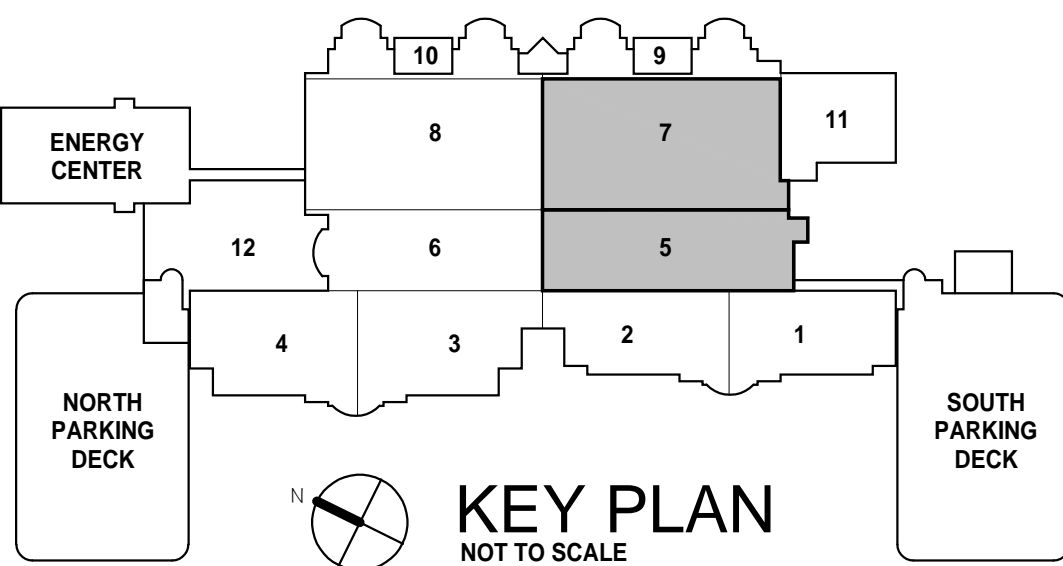
**KEY POWER PLAN NOTES:**

- RECEPTACLE AND DATA FLOOR BOXES SHALL BE FED FROM THE LOWER INTERSTITIAL SPACE. COORDINATE THE EXACT FLOOR BOX LOCATION WITH THE COR.
- RECEPTACLE FLOOR BOXES SHALL BE FED FROM THE LOWER INTERSTITIAL SPACE. ROUTE CONDUIT UNDER FLOOR SLAB FROM BOX LOCATION TO LOWER INTERSTITIAL SPACE. COORDINATE THE EXACT FLOOR BOX LOCATION WITH THE COR.
- FURNISH AND INSTALL INTERCONNECTING WIRING FOR DOOR OPERATOR AND ASSOCIATED SENSORS AND CONTROLS.
- FURNISH AND INSTALL INTERCONNECTING WIRING FOR AIR CURTAIN CONTROLS - SEE SCHEDULE ON SHEET M-800. PROVIDE A NEW 20AMP, 2 POLE CIRCUIT BREAKER WITHIN RP.
- INSTALL CONTROLLERS FURNISHED WITH HEATERS NEAR PANELBOARD IN ROOM C1999 AND A1026 FOR 11-IRH-1 AND 5IRH-12 RESPECTIVELY. FURNISH AND INSTALL INTERCONNECTING WIRING FROM INFRARED RADIANT HEATER TO CONTROLLER AS REQUIRED. PROVIDE SEPARATE CONDUIT FOR CONTROL WIRING, 3/4" C, #14 - SEE SCHEDULE ON SHEET M-800.
- ELECTRIC WATER COOLER; COORDINATE WITH SPECIFICATION SECTION 22 40 00.
- NEW LOCATION FOR EXISTING PARKING DECK PAY-ON-FOOT STATION. EXTEND ALL ASSOCIATED CONDUIT AND WIRING FROM EXISTING LOCATION. VERIFY WITH COR FOR EXACT LOCATION.
- PROVIDE A NEW 30 AMP, 2 POLE, 3 WIRE RECEPTACLE FOR VENDING MACHINE. VERIFY TO MATCH EXISTING LOCATED NEAR COLUMN LINE J8. PROVIDE (2)- 30A/1P CIRCUIT BREAKERS IN RP18A.
- EXTEND EXISTING JUNCTION BOX AND WIRING TO FACE OF NEW FURRED-OUT WALL. PROVIDE NEW DEVICE AND COVERPLATE.
- PROVIDE RECESSED, FLUSH FLOOR BOXES FOR FUTURE METAL DETECTORS. LOCATION AND LAYOUT PER COR RECOMMENDATION. PROVIDE 1 1/4" CONDUIT FROM EACH JUNCTION BOX TO ABOVE CEILING IN ACCESSIBLE LOCATION.
- EXTEND CONDUIT AND WIRING FROM EXISTING AUTOMATIC DOOR LOCATION TO NEW AUTOMATIC DOOR LOCATION.

REFER TO ALTERNATE #5

REFER TO ALTERNATE #5

FIRST FLOOR POWER PLAN  
1/8" = 1'-0"



1	
2	
3	
4	
5	
Revisions:	Date

**CONSULTANTS:**

725 Prudden Street  
Lansing, MI 48906 - 517.371.1200  
123 West Main Street, Suite 200  
Gaylord, MI 49735 - 989.732.8131  
648 Monroe Avenue NW, Suite 210  
Grand Rapids, MI 49503 -  
616.454.9414  
1211 Ludington Street  
Escanaba, MI 49829 - 906.233.3360



Department of Veterans Affairs  
John D. Dingell VA Medical Center  
4646 John R Street  
Detroit, MI 48201

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File Name

File Location

Drawing Title

FIRST FLOOR POWER PLAN

Approved: Division Chief

Approved: Service Director

Project Title

RENOVATIONS TO THE SOUTH  
LOBBY ENTRANCE

Building Number

Checked  
MJJ

Drawn  
PBB

Location  
4646 JOHN R. STREET DETROIT, MI 48201

Date

03/01/2016

Project Number  
553-304

Drawing Number

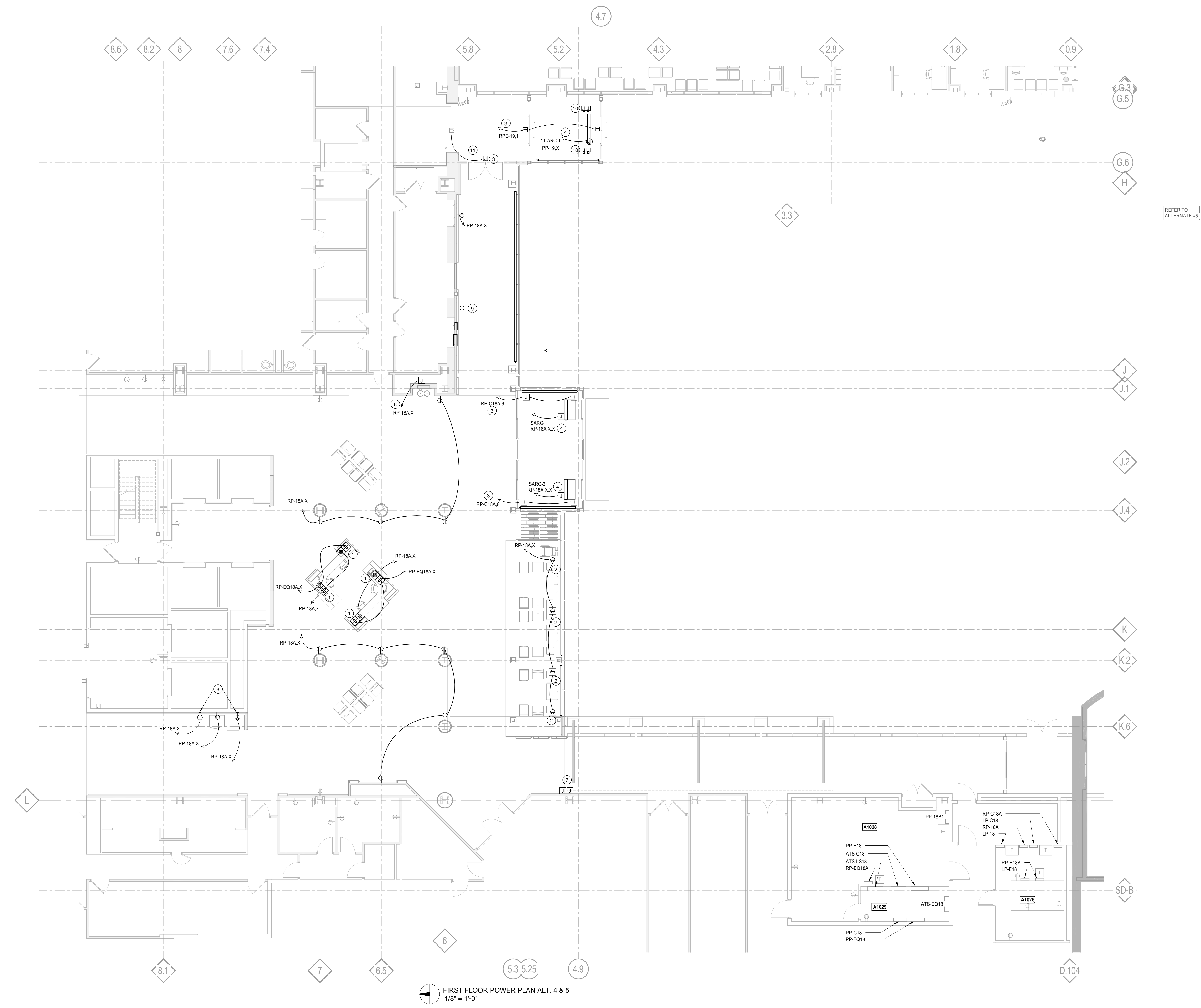
EP-110

Office of  
Facilities  
Management




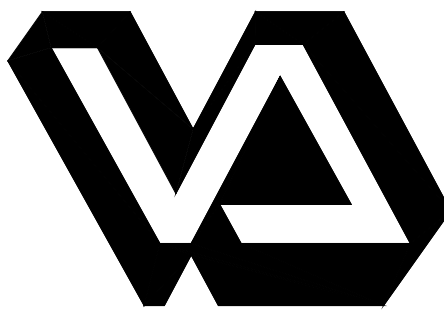

Department of  
Veterans Affairs

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot  
one sixteenth inch = one foot



- GENERAL NOTES:**
- WHERE HOMERUNS INDICATE CONNECTION TO A CIRCUIT "X", CONNECT TO AN UNUSED CIRCUIT BREAKER WITHIN THE INDICATED PANEL. CIRCUITS SHALL BE 20A, 1P UNLESS NOTED OTHERWISE.
- KEY POWER PLAN NOTES:**
- RECEPTACLE AND DATA FLOOR BOXES SHALL BE FED FROM THE LOWER INTERSTITIAL SPACE. COORDINATE THE EXACT FLOOR BOX LOCATION WITH THE COR.
  - RECEPTACLE FLOOR BOXES SHALL BE FED FROM THE LOWER INTERSTITIAL SPACE. ROUTE CONDUIT UNDER FLOOR SLAB FROM BOX LOCATION TO LOWER INTERSTITIAL SPACE. COORDINATE THE EXACT FLOOR BOX LOCATION WITH THE COR.
  - FURNISH AND INSTALL INTERCONNECTING WIRING FOR DOOR OPERATOR AND ASSOCIATED SENSORS AND CONTROLS.
  - FURNISH AND INSTALL INTERCONNECTING WIRING FOR AIR CURTAIN CONTROLS - SEE SCHEDULE ON SHEET M-600. PROVIDE A NEW 20AMP, 2 POLE CIRCUIT BREAKER WITHIN RP.
  - INSTALL CONTROLLERS FURNISHED WITH HEATERS NEAR PANELBOARD IN ROOM C1999 AND A1026 FOR 11-IRH-1 AND 5IRH-1/2 RESPECTIVELY. FURNISH AND INSTALL INTERCONNECTING WIRING FROM INFRARED RADIANT HEATER TO CONTROLLER AS REQUIRED. PROVIDE SEPARATE CONDUIT FOR CONTROL WIRING, 3/4" C, 6F14. - SEE SCHEDULE ON SHEET M-600.
  - ELECTRIC WATER COOLER; COORDINATE WITH SPECIFICATION SECTION 22 40 00.
  - NEW LOCATION FOR EXISTING PARKING DECK PAY-ON-FOOT STATION. EXTEND ALL ASSOCIATED CONDUIT AND WIRING FROM EXISTING LOCATION. VERIFY WITH COR FOR EXACT LOCATION.
  - PROVIDE A NEW 30 AMP, 2 POLE, 3 WIRE RECEPTACLE FOR VENDING MACHINE. VERIFY TO MATCH EXISTING LOCATED NEAR COLUMN LINE J8. PROVIDE (2) - 30A/1P CIRCUIT BREAKERS IN RP18A.
  - EXTEND EXISTING JUNCTION BOX AND WIRING TO FACE OF NEW FURRED - OUT WALL. PROVIDE NEW DEVICE AND COVERPLATE.
  - PROVIDE RECESSED, FLUSH FLOOR BOXES FOR FUTURE METAL DETECTORS. LOCATION AND LAYOUT PER COR RECOMMENDATION. PROVIDE 1 1/4" CONDUIT FROM EACH JUNCTION BOX TO ABOVE CEILING IN ACCESSIBLE LOCATION.
  - EXTEND CONDUIT AND WIRING FROM EXISTING AUTOMATIC DOOR LOCATION TO NEW AUTOMATIC DOOR LOCATION.

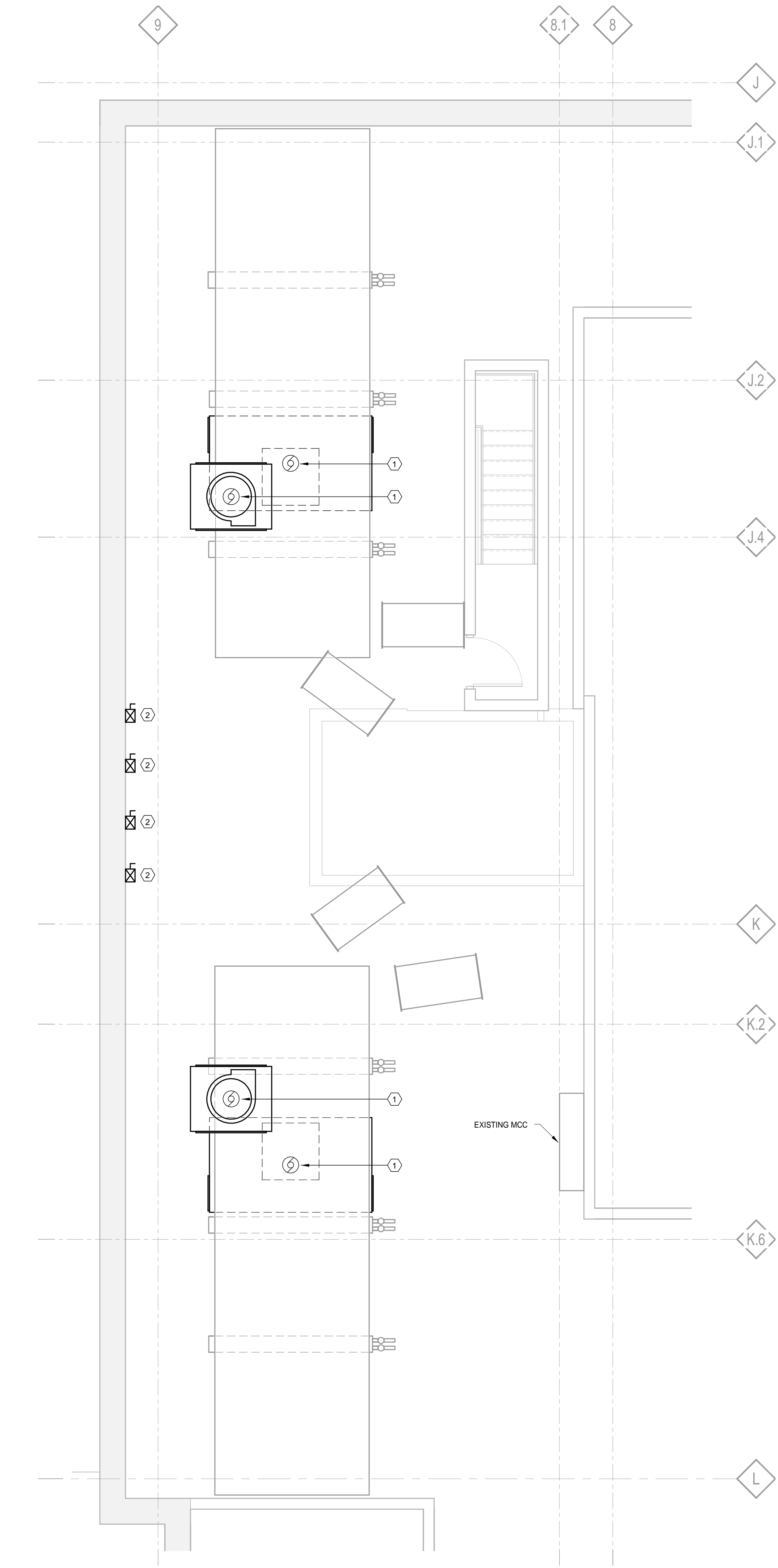
FIRST FLOOR POWER PLAN ALT. 4 & 5  
1/8" = 1'-0"

<b>Revisions:</b> 1 2 3 4 5	<b>CONSULTANTS:</b> 725 Prudden Street Lansing, MI 48906 - 517.371.1200 123 West Main Street, Suite 200 Gaylord, MI 49735 - 989.732.8131 648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414 1211 Ludington Street Escanaba, MI 49829 - 906.233.9360	 elevating human achievement	 Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201	Property of the United States Government For Official Use Only <small>Do not remove this notice. Properly Destroy documents when no longer needed.</small>		Drawing Title <b>FIRST FLOOR POWER PLAN ALT.</b>		Project Title <b>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</b>		Date 03/01/2016 Project Number 553-304		<b>Office of Facilities Management</b>  Department of Veterans Affairs		
				File Name		Approved: Division Chief		Building Number		Checked Checker			Drawn Author	
				File Location		Approved: Service Director		Location 4646 JOHN R. STREET DETROIT, MI 48201		Drawing Number <b>EP-110.a</b>				

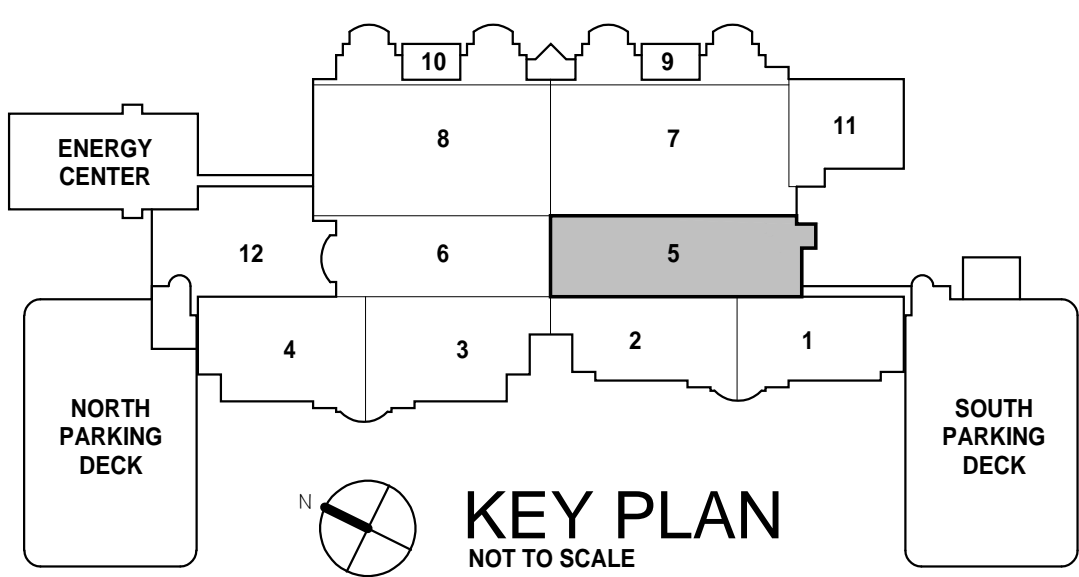


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- KEYED PENTHOUSE POWER PLAN NOTES:**
- ① DISCONNECT EXISTING FAN TO ALLOW REPLACEMENT BY OTHERS. CONNECT NEW FANS TO EXISTING CIRCUITS. FAN POWER IS FROM MCC-B6.
  - ② DISCONNECT AND REMOVE EXISTING VARIABLE SPEED MOTOR CONTROLLERS (VSMC) AND INSTALL NEW VSMC'S AT THE SAME LOCATION. EXISTING FAN CIRCUIT CONDUIT AND CONDUCTORS MAY BE REUSED WHERE PRACTICAL. FURNISH VSMC'S IN ACCORDANCE WITH SPECIFICATION SECTION 28.25.11.



1 PENTHOUSE POWER PLAN  
1/4" = 1'-0"



1		
2		
3		
4		
5		
Revisions:		Date

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File Name

File Location

Drawing Title  
**PENTHOUSE POWER PLAN**

Approved: Division Chief

Approved: Service Director

Project Title  
**RENOVATIONS TO THE SOUTH LOBBY ENTRANCE**

Building Number

Location  
4646 JOHN R. STREET DETROIT, MI 48201

Date  
03/01/2016

Project Number  
553-304

Drawing Number  
**EP-180**

Office of Facilities Management

Department of Veterans Affairs



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**GENERAL NOTES:**

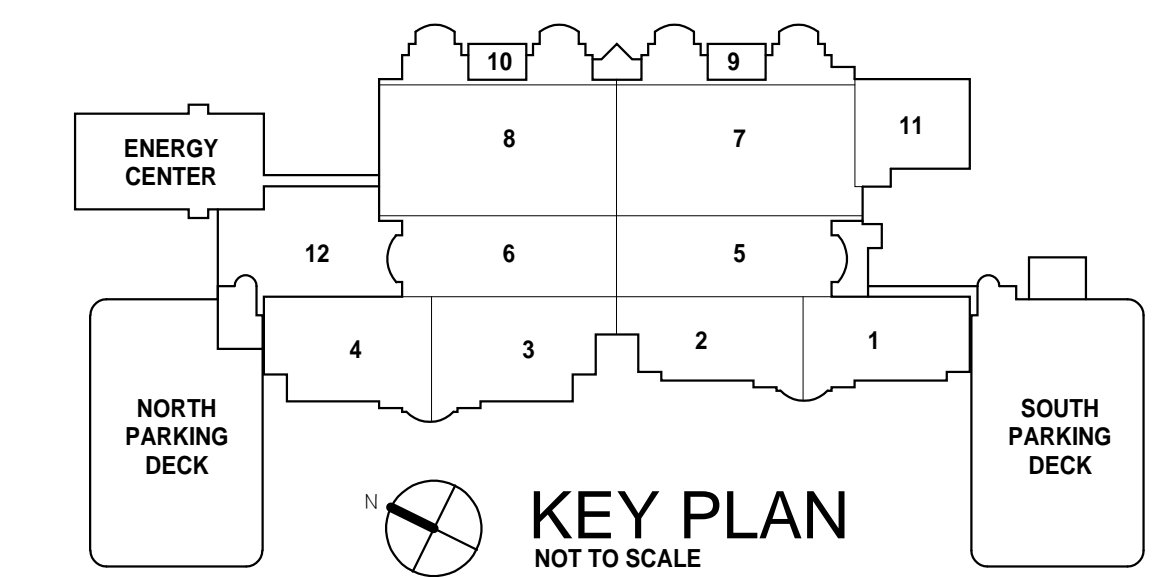
1. RELOCATE EXISTING INTERNET WIRELESS DEVICES, SPEAKERS, SMOKE DETECTORS, ETC. IN NEW CEILING. COORDINATE NEW LOCATIONS WITH COR.
2. RELOCATION OF THE FIRE ALARM ANNUNCIATOR AND FIRE FIGHTER'S HANDSET CABINET WILL REQUIRE THESE SYSTEMS BE SHUT DOWN TO PERFORM THE WORK. SHUT DOWNS SHALL BE COORDINATED WITH THE VA AND SHALL BE SCHEDULED TO MINIMIZE DISRUPTION TO FACILITY OPERATIONS. WORK MAY NEED TO BE SCHEDULED OUTSIDE OF NORMAL BUSINESS HOURS OR ON WEEKENDS. ROUTE EXTENSIONS OF SYSTEM CABLES TO EACH RELOCATED PANEL VIZ INTERSTITIAL SPACE ABOVE.


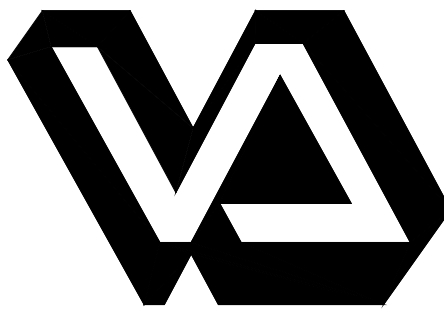
**KEY SYSTEM PLAN NOTES:**

- 1 RELOCATED FIRE ALARM ANNUNCIATOR PANEL. SEE SHEET ED-110. EXTEND EXISTING CIRCUITS AS REQUIRED TO NEW LOCATION.
- 2 RELOCATED FIRE FIGHTERS COMMUNICATIONS HANDSET CABINET. SEE SHEET ED-110. EXTEND EXISTING CIRCUITS AS REQUIRED TO NEW LOCATION.
- 3 REINSTALL EXISTING NURSE CALL SYSTEM DEVICES. SEE SHEET ED-110. EXTEND EXISTING SYSTEM CIRCUITS AS REQUIRED.
- 4 NEW NURSE CALL SYSTEM ONE LIGHT. SEE SHEET RISER DIAGRAM ON SHEET E-503.
- 5 REINSTALL EXISTING CCTV CAMERA. 4 LOCATIONS. SEE SHEET ED-110.
- 6 NEW CCTV CAMERA SEE SHEET E-503.
- 7 DOORS TO BE HELD OPEN DURING BUSINESS HOURS. HOLD OPEN TO RELEASE WITH FIRE ALARM. DOORS TO BE LOCK DURING NON-BUSINESS HOURS.

REFER TO ALTERNATE #2

FIRST FLOOR SYSTEMS PLAN  
1/8" = 1'-0"



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					File Name	Approved: Division Chief	Building Number	Checked MJJ		Drawn PBB	Project Number 553-304
					File Location	Approved: Service Director	Location 4646 JOHN R. STREET DETROIT, MI 48201			Drawing Number <b>ES-110</b>	



ELECTRICAL ABBREVIATIONS

1PH	SINGLE-PHASE	EWC	ELECTRIC WATER COOLER	NA	NOT APPLICABLE
1P	SINGLE POLE	EW	ELECTRIC WATER HEATER	NEC	NATIONAL ELECTRICAL CODE
2P	TWO POLE	EXIST	EXISTING	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
3PH	THREE PHASE	EXP	EXPLOSION PROOF	N	NEUTRAL
3P	THREE POLE	FA	FIRE ALARM	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
A	AMP	FAAP	FIRE ALARM ANNUNCIATOR PANEL	NIC	NOT IN CONTRACT
AC	AIRCRAFT CABLE	FACP	FIRE ALARM CONTROL PANEL	NL	NIGHT LIGHT
ACU	AIR CONDITIONING UNIT	FXKT	FIXTURE	NO	NORMALLY OPEN
AAP	ALARM ANNUNCIATOR PANEL	FLA	FULL LOAD AMPS	NTS	NOT TO SCALE
AF	AMP FUSE	FLEX	FLEXIBLE METALLIC CONDUIT	OC	ON CENTER
AFC	AVAILABLE FAULT CURRENT	FLUOR	FLUORESCENT	OS	OCCUPANCY SENSOR
AFF	ABOVE FINISHED FLOOR	FP	FIRE PROTECTION	P	POLE, PUMP
AFG	ABOVE FINISHED GRADE	FT	FEET OR FOOT	PA	PUBLIC ADDRESS
AHJ	AUTHORITY HAVING JURISDICTION	FVNR	FULL VOLTAGE NON-REVERSING	PB	PUSHBUTTON
AHU	AIR HANDLING UNIT	FVR	FULL VOLTAGE REVERSING	PBP	PREFABRICATED BEDSIDE PATIENT UNIT
ASC	AMPS SHORT CIRCUIT	GND	GROUND	PCB	POLYCHLORINATED BIPHENYL
AT	AMPERE TRIP	GC	GENERAL CONTRACTOR	PEC	PHOTOELECTRIC CELL
ATS	AUTOMATIC TRANSFER SWITCH	GEN	GENERATOR	PED	PEDESTAL
AUTO	AUTOMATIC	GFCI	GROUND FAULT INTERRUPTER	PEND	PENDANT
AV	AUDIO VISUAL	HID	HIGH INTENSITY DISCHARGE	PF	POWER FACTOR
BC	BARE COPPER	HQA	HAND-OFF-AUTOMATIC	PH	PHASE
BD	BOARD	HP	HORSE POWER	PNL	PANEL
BFF	BELOW FINISHED FLOOR	HT	HEIGHT	PVC	POLYVINYL CHLORIDE (PLASTIC)
BLDG	BUILDING	HZ	HERTZ	PWR	POWER
BKR	BREAKER	IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA	RCF	REFLECTED CEILING PLAN
BYR	BY PASS	IMC	INTERMEDIATE METAL CONDUIT	REC	RECESSED
C	CONDUIT	IR	INFRARED	RECEPT	RECEPTACLE
CCR	CONTROL CONTACT	IS	INSTANT START (BALLAST)	RGS	RIGID GALVANIZED STEEL
CCTV	CLOSED CIRCUIT TELEVISION	IWH	INSTANTANEOUS WATER HEATER	RM	ROOM
CF	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED	JB	JUNCTION BOX	REQD	REQUIRED
CF/CI	CONTRACTOR FURNISHED / CONTRACTOR INSTALLED	KV	KILOVOLT	SCC	SHORT CIRCUIT CAPACITY
CF/OI	CONTRACTOR FURNISHED / OWNER INSTALLED	kVA	KILVOLT AMPERE	SES	SERVICE ENTRANCE SECTION
CKT	CIRCUIT	KW	KILOWATT	SD	SMOKE DETECTOR
CKT BKR	CIRCUIT BREAKER	LED	LIGHT EMITTING DIODE	SF	SQUARE FOOT (FEET)
CLF	CURRENT LIMITING FUSE	LF	LINEAR FEET	SHT	SHEET
CLG	CEILING	LM	LUMEN	SI	INTERNATIONAL SYSTEM OF UNITS
COAX	COAX CABLE	LPS	LOW PRESSURE SODIUM	SPEC	SPECIFICATION
COMM	COMMUNICATION	LRA	LOCKED ROTOR AMPS	SPST	SINGLE POLE, SINGLE THROW
CRI	COLOR RENDERING INDEX	LT	LIGHT	SURF	SURFACE
CT	CURRENT TRANSFORMER	LTG	LIGHTING	SWBD	SWITCHBOARD
CTV	CABLE TV	LTG PNL	LIGHTING PANEL	SWGR	SWITCHGEAR
CU	COPPER	LTNG	LIGHTING	TC	TIME CLOCK
DB	DIRECT BURIAL	LV	LOW VOLTAGE	TEL	TELEPHONE
DCP	DIMMER CONTROL PANEL	LTNG	LIGHTNING	TP	TWISTED PAIR
DEG C	DEGREES CELSIUS	LV	LOW VOLTAGE	TPS	TWISTED PAIR SHIELDED
DEG F	DEGREES FAHRENHEIT	MATV	MASTER ANTENNA TELEVISION SYSTEM	TTB	TELEPHONE TERMINAL BOARD
DEMO	DEMOLITION	MAX	MAXIMUM	TV	TELEVISION
DISC	DISCONNECT	MC	METAL-CLAD, MECHANICAL CONTRACTOR	TYP	TYPICAL
DISTR	DISTRIBUTION	MCA	MINIMUM CIRCUIT AMPS	UFD	UNDERFLOOR DUCT
DISTR PNL	DISTRIBUTION PANEL	MCB	MAIN CIRCUIT BREAKER	UGND	UNDERGROUND
DMR SW	DIMMER SWITCH	MCC	MOTOR CONTROL CENTER	UL	UL
DN	DOWN	MDP	MAIN DISTRIBUTION PANEL	UON	UNLESS OTHERWISE NOTED
DPDT	DOUBLE POLE, DOUBLE THROW	MECH	MECHANICAL	UPS	UNINTERRUPTIBLE POWER SUPPLY
DPST	DOUBLE POLE, SINGLE THROW	MH	MANHOLE	UTL	UTILITY
EC	ELECTRICAL CONTRACTOR	MICRO	MICROWAVE	V	VOLT
EG	EQUIPMENT GROUND	MIN	MINIMUM	VA	VOLT AMPERE
ELEC	ELECTRIC OR ELECTRICAL	MOCP	MAXIMUM OVERCURRENT PROTECTION	VFD	VARIABLE FREQUENCY DRIVE
ELEV	ELEVATOR	MLO	MAIN LUGS ONLY	VOLT	VOLTAGE
EMER	EMERGENCY	MT	MOUNT	W	WATT
EMI	ELECTROMAGNETIC INTERFERENCE	MTD	MOUNTED	WH	WATER HEATER
EMT	ELECTRICAL METALLIC TUBING	MTG	MOUNTING	WP	WEATHERPROOF
ENCL	ENCLOSURE	MTR	MOTOR	XFER	TRANSFER
EPO	EMERGENCY POWER OFF	MTS	MANUAL TRANSFER SWITCH	XFMR	TRANSFORMER
ETR	EXISTING TO REMAIN	MV	MEDIUM VOLTAGE	XP	EXPLOSION PROOF

NOTE: NOT ALL ABBREVIATIONS IN LEGEND ARE USED

ELECTRICAL SYMBOL LEGEND

	SINGLE RECEPTACLE- 18" TYP. UON.		LUMINAIRE: SURFACE/ PENDENT/ WALL MOUNTED
	SINGLE RECEPTACLE- GF1, 18" TYP.		LUMINAIRE: RECESSED
	DUPLEX RECEPTACLE- 18" TYP.		LUMINAIRE: RECESSED DOWNLIGHT, WALL WASH
	DUPLEX RECEPTACLE- GF1, 18" TYP.		LUMINAIRE: LIFE SAFETY CIRCUIT
	DUPLEX RECEPTACLE- MTD 6" ABOVE COUNTERTOP, UON.		EXIT SIGN: CEILING/ WALL MOUNTED
	DUPLEX RECEPTACLE- GF1, MTD 6" ABOVE COUNTERTOP, UON.		
°	"C" NEXT TO RECEPTACLE = CRITICAL CIRCUIT		TV CONNECTION- SEE DETAILS FOR SPECIFIC REQUIREMENTS.
	QUAD RECEPTACLE- 18" TYP.		TELEPHONE: 48" TYP., UON.
	QUAD RECEPTACLE- GF1, 18" TYP.		VOICE/ DATA OUTLET: 18" TYP., UON.
	QUAD RECEPTACLE- MTD 6" ABOVE COUNTER TOP, UON.		VOICE/ DATA OUTLET: 44" TYP., UON.
	QUAD RECEPTACLE- GF1 MTD 6" ABOVE COUNTER TOP, UON.		VOICE/ DATA OUTLET: 72" TYP., UON.
	RECEPTACLE- 208V SINGLE PHASE		VOICE/ DATA OUTLET: FLOOR. COORDINATE WITH POWER FLOOR BOXES.
	DUPLEX FLOOR RECEPTACLE		VOICE/ DATA OUTLET: CEILING TYP., UON.
	DUPLEX FLOOR RECEPTACLE- GF1		VOICE/ DATA OUTLET: CEILING TYP., UON.
	DUPLEX RECEPTACLE- FLOOR PEDESTAL		VOICE/ DATA OUTLET: CEILING TYP., UON.
	QUAD FLOOR RECEPTACLE		RTL/5: WIRELESS STAR DEVICE
	QUAD FLOOR RECEPTACLE- GF1		RTL/5: BATTERY OPERATED MONITORING LOCATION, 72" AFF (TYP.) FIELD VERIFY
	QUAD RECEPTACLE- FLOOR PEDESTAL		LETTER = FACEPLATE TYPE: REFERENCE ELECTRICAL DETAILS SHEET E-501
	DUPLEX RECEPTACLE- CEILING MOUNTED		
	DUPLEX RECEPTACLE- GF1 CEILING MOUNTED		NURSE CALL: SINGLE BED STATION
	QUAD RECEPTACLE- CEILING MOUNTED		NURSE CALL: CODE BLUE STATION
	QUAD RECEPTACLE- GF1 CEILING MOUNTED		NURSE CALL: SHOWER EMERGENCY STATION
	SPECIALTY OUTLET- SEE EQUIPMENT AND DRAWINGS FOR REQUIREMENTS		NURSE CALL: TOILET EMERGENCY STATION
	JUNCTION BOX		NURSE CALL: STAFF STATION
	WEATHER PROOF- MOUNT WP, GF1 RECEPTACLES 24" AFG, UON.		NURSE CALL: STAFF DUTY STATION
	ELECTRIC WATER COOLER- GF1, CONCEAL AND COORDINATE W/ PLUMBING CONTRACTOR		NURSE CALL: ROOM DOME LIGHT WALL CEILING
	HAND HOLE		NURSE CALL: ZONE DOME LIGHT WALL/ CEILING
	MOTOR		NURSE CALL: MASTER NURSE STATION
	FUSED SWITCH- POLE AND VOLTAGE AS REQUIRED, DUAL ELEMENT PLUG FUSE		NURSE CALL: ANTI-LIGATURE DOOR CONTACT
	NON-FUSED DISCONNECT		CONTROLS: SPEAKER FOR PA SYSTEM.
	CIRCUIT BREAKER DISCONNECT		CONTROLS: ADA DOOR CONTROL, OPENER, COORDINATE WITH DOOR REQUIREMENTS
	COMBINATION MOTOR STARTER/ DISCONNECT		CONTROLS: DOOR CONTROLS, COORDINATE WITH SECURITY, AUTO AND MANUAL CONTROLS
	FUSED DISCONNECT		CONTROLS: PAN-TILT-ZOOM CAMERA
	MANUAL MOTOR STARTER		SECURITY: DOOR BUZZER/ PUSH/BUTTON SYSTEM
	MOTOR STARTER		SECURITY: CARD READER, COORDINATE WITH ADJACENT DOOR
	SURFACE MOUNTED PANEL		
	RECESSED PANEL		FIRE: MANUAL PULL STATION
			FIRE: AUDIBLE AND VISUAL ANNUNCIATION COVERAGE IN AREA PER CODE, WALL MOUNTED
	SWITCH: SINGLE POLE, 40" TYPICAL UON.		FIRE: VISUAL ANNUNCIATION COVERAGE IN AREA PER CODE, WALL MOUNTED
	SWITCH: 3-POLE, 40" TYPICAL UON.		FIRE: AUDIBLE ANNUNCIATION COVERAGE IN AREA PER CODE, WALL MOUNTED
	SWITCH: 4-POLE, 40" TYPICAL UON.		FIRE: AUDIBLE AND VISUAL ANNUNCIATION COVERAGE IN AREA PER CODE, CEILING MOUNTED
	SWITCH: WALL BOX DIMMER, 40" TYPICAL UON.		FIRE: VISUAL ANNUNCIATION COVERAGE IN AREA PER CODE, CEILING MOUNTED
	SWITCH: KEYED, 40" TYPICAL UON.		FIRE: AUDIBLE ANNUNCIATION COVERAGE IN AREA PER CODE, CEILING MOUNTED
	SWITCH: MULTI-TECH OCCUPANCY SENSOR, 40" TYPICAL UON.		FIRE: SMOKE DETECTOR COVERAGE IN AREA PER CODE, CEILING
	SWITCH: PILOT LIGHT, 40" TYPICAL UON.		FIRE: HEAT DETECTOR IN AREA PER CODE, CEILING
	SWITCH: TIMER, 40" TYPICAL UON.		FIRE: DUCT SMOKE DETECTION PER CODE. SEE NOTE 1.
	SWITCH LOW VOLTAGE AND NUMBER. SEE TABLE FOR BUTTON QTY AND PROGRAMMING.		FIRE: TAMPER SWITCH: PROVIDE AS REQUIRED, COORDINATE WITH FP CONTRACTOR.
	SWITCH: MULTI-TECH OCCUPANCY SENSOR, CEILING		FIRE: FLOW SWITCH: PROVIDE AS REQUIRED, COORDINATE WITH FP CONTRACTOR.
	SWITCH: MULTI-TECH DIRECTIONAL OCCUPANCY SENSOR, CEILING		FIRE: DOOR HOLD: PROVIDE AS REQUIRED PER CODE. SEE NOTE 2.
	SWITCH: MULTI-TECH OCCUPANCY SENSOR, WALL		FIRE: DOOR RELEASE: PROVIDE AS REQUIRED PER CODE. SEE NOTE 2.
	SWITCH: EXTERIOR PHOTOCELL, CEILING		FIRE: FIRE AND/OR SMOKE DAMPER: PROVIDE AS REQUIRED PER CODE. SEE NOTE 3.
			FIRE: EXTINGUISHER MONITOR

A

B

C

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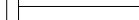
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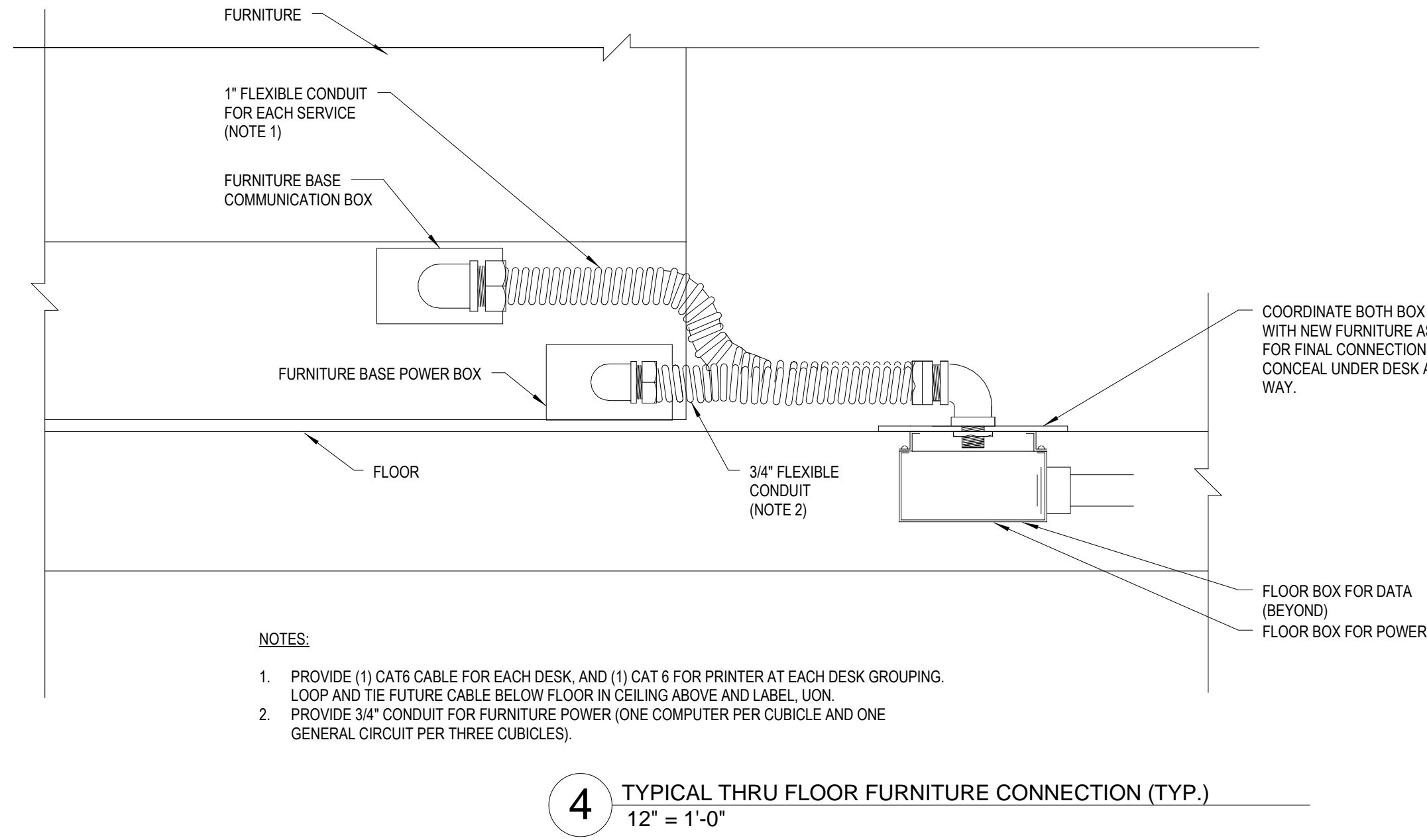
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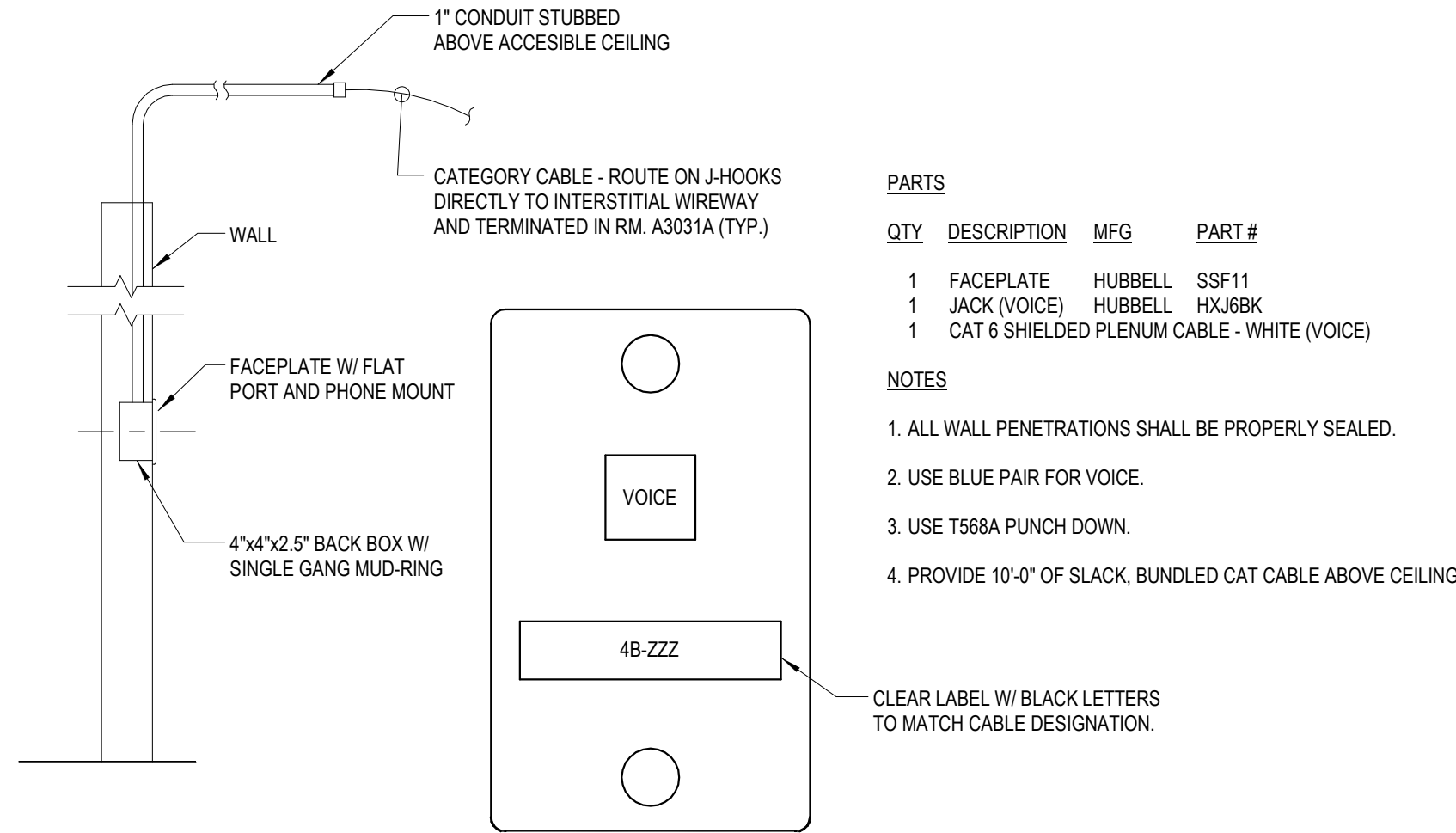
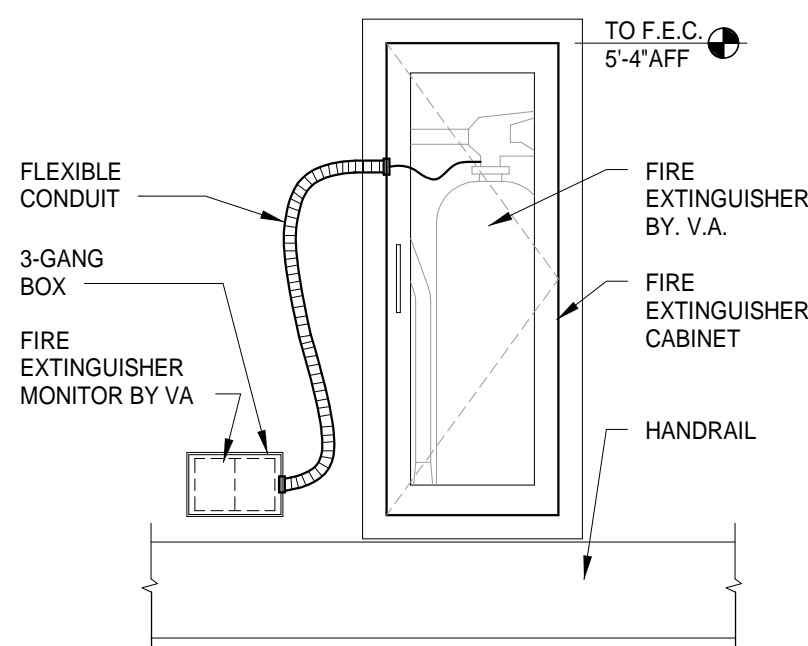


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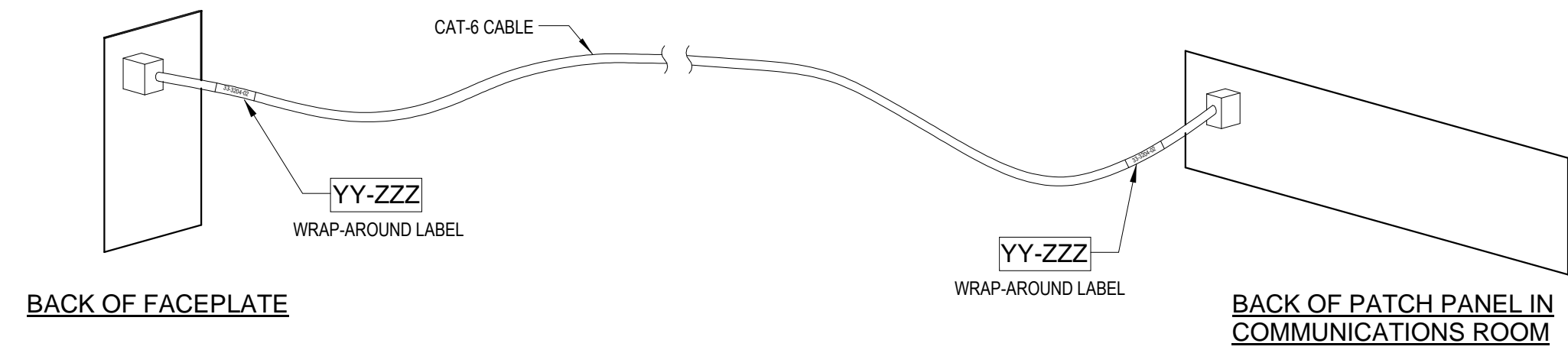
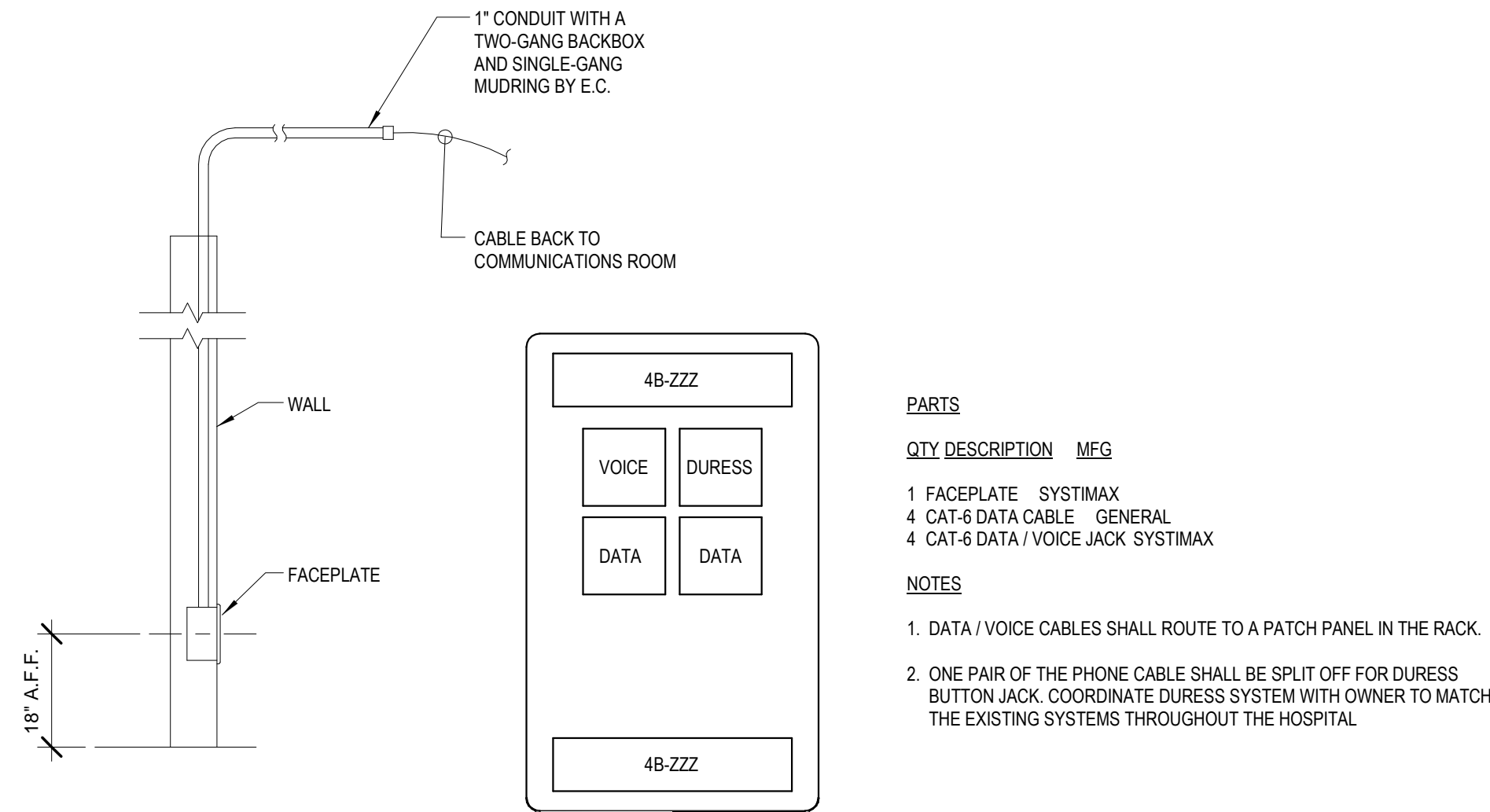
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						Project Number 553-304	
File Name	Approved: Division Chief		Building Number	Checked MJJ	Drawn PBB	Drawing Number	E-501
File Location	Approved: Service Director		Location 4646 JOHN R. STREET DETROIT, MI 48201				
						 Department of Veterans Affairs	



5 FIRE EXTINGUISHER MONITOR DETAIL  
1" = 1'-0"



2 TYPE 3 VOICE / DATA DROP  
1/2" = 1'-0"

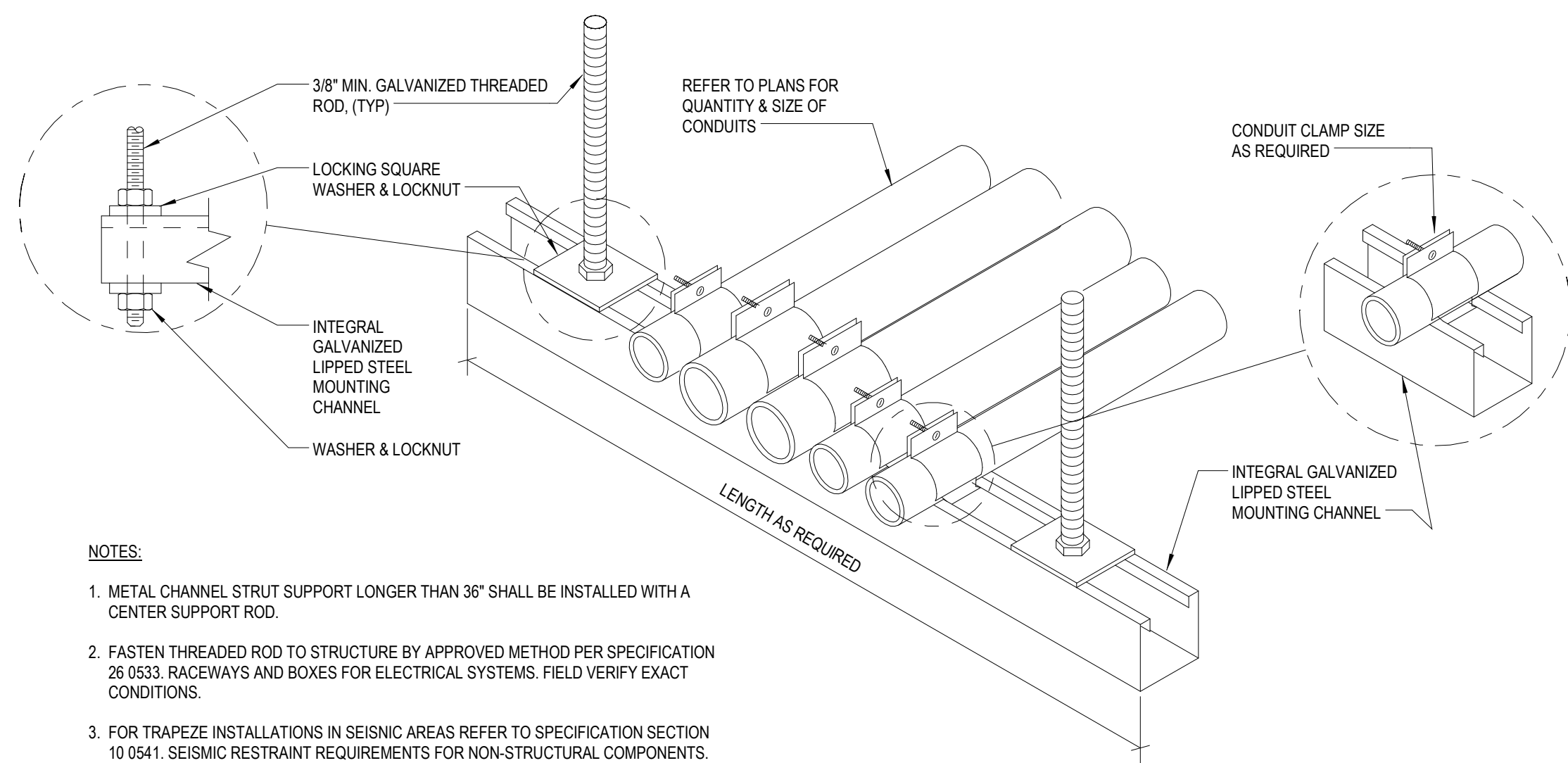


3 CABLE LABELING DETAIL  
1/2" = 1'-0"

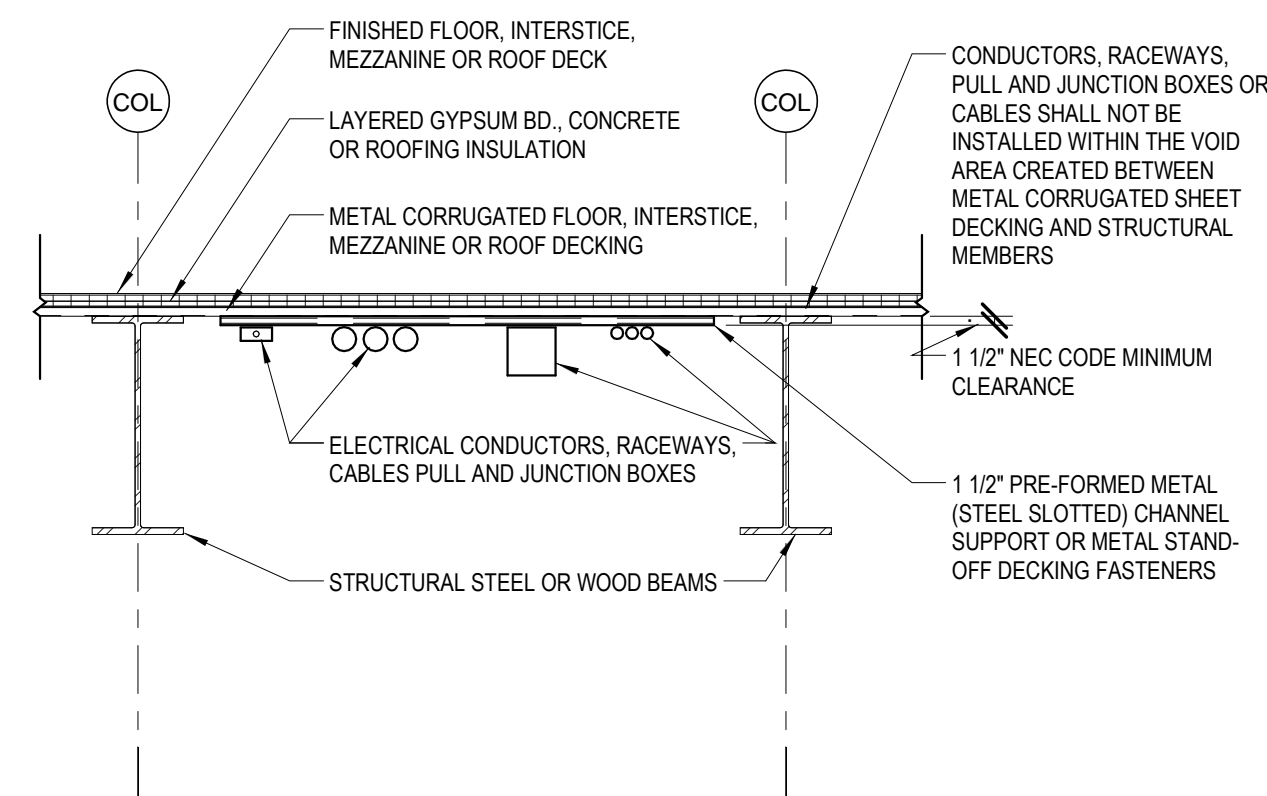
GENERAL CONNECTIVITY NOTES:

1. ROUTE ALL USER CABLES FROM THE RACK OR CABINET, THROUGH THE CABLE TRAY IF SO PROVIDED, IF NO CABLE TRAY IS SHOWN INSTALL CABLES THROUGH "J" HOOKS. PROVIDE ALL "J" HOOKS.
2. CABLES SHALL BE SUPPORTED NO LESS THAN EVERY 5 FEET.
3. PROVIDE A SMALL LOOP OF CABLE ABOVE THE CEILING PRIOR TO INSTALLING THE CABLE IN THE USER CONDUIT OR RACEWAY.
4. ROUTE THE CABLE THROUGH THE CONDUIT OR RACEWAY AND TO THE WALLBOX OR FLOORBOX. PROVIDE ENOUGH EXTRA CABLE FOR TERMINATION AND MAINTENANCE.
5. TERMINATE ALL CABLES WITH CONNECTORS APPROVED FOR USE.
6. ALL CONNECTORS SHALL BE INSERTED INTO THE KEYSTONE PLATES AND THEN THE KEYSTONE PLATES SHALL BE INSTALLED INTO THE FACEPLATES.
7. INSTALL FACEPLATES TO THE BOXES OR DIRECTLY TO THE WALL OR FURNITURE IN THE CASE OF SURFACE MOUNT BOXES.
8. EACH CABLE SHALL HAVE A LASER-PRINTED, SELF-LAMINATING WRAP-AROUND LABEL AT EACH END. SEE DETAIL ON THIS DRAWING.
9. OUTLETS SHALL BE AT 18" A.F.F. UNLESS NOTED ON THE DETAILS OR PLAN DRAWINGS.
10. LABEL EACH FACEPLATE WITH A LASER-PRINTED ADHESIVE LABEL, UNLESS NOTED OTHERWISE.
11. AFTER INSTALLATION, ALL CABLES SHALL BE TESTED. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
12. FOR AUDIO AND VIDEO CONNECTIONS, THE CONTRACTOR SHALL ROUTE SIGNALS ACROSS THE CABLES FOR TESTING.
13. COAX CABLE TO BE PLENUM RATED, RG-6 BELDEN CABLE #9116P OR EQUAL.
14. FIBER OPTIC CABLE TO BE 24 STRAND MULTIMODE, 50 MICRON, PLENUM RATED, FIBER OCC #D24-075K-AL1000-DNP OR EQUAL.
15. INNERDUCT TO BE 1-1/4" PLENUM RATED WITH PULLSTRING, CARLON #C64X1C OR EQUAL.
16. CONTRACTOR SHALL COORDINATE ALL WORK WITH VA IT PRIOR TO INSTALLATION.
17. CONTRACTOR SHALL PROVIDE A COMPLETE AND WORKING IT INFRASTRUCTURE SYSTEM THAT IS FULLY INTEGRATED WITH EXISTING SYSTEM.

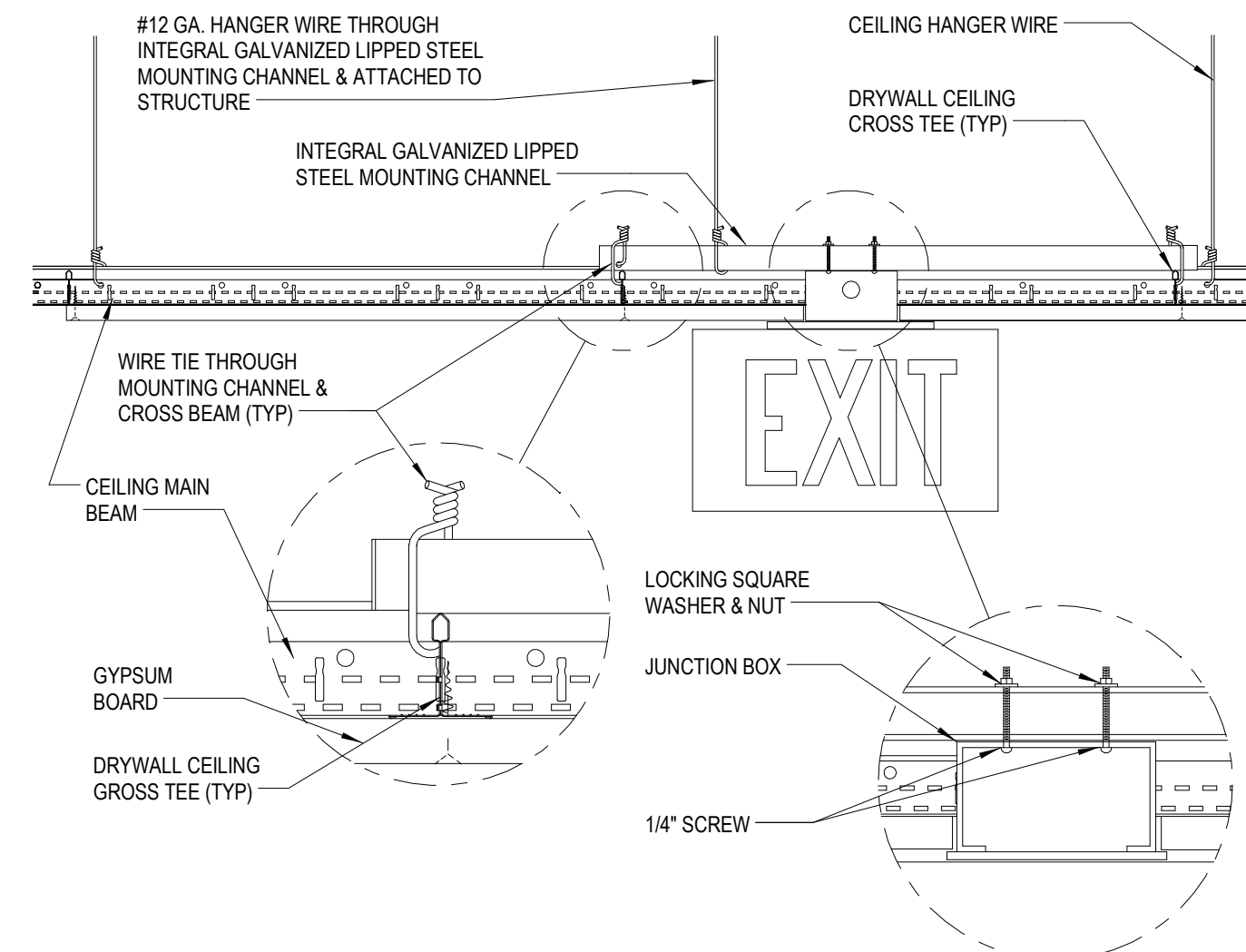




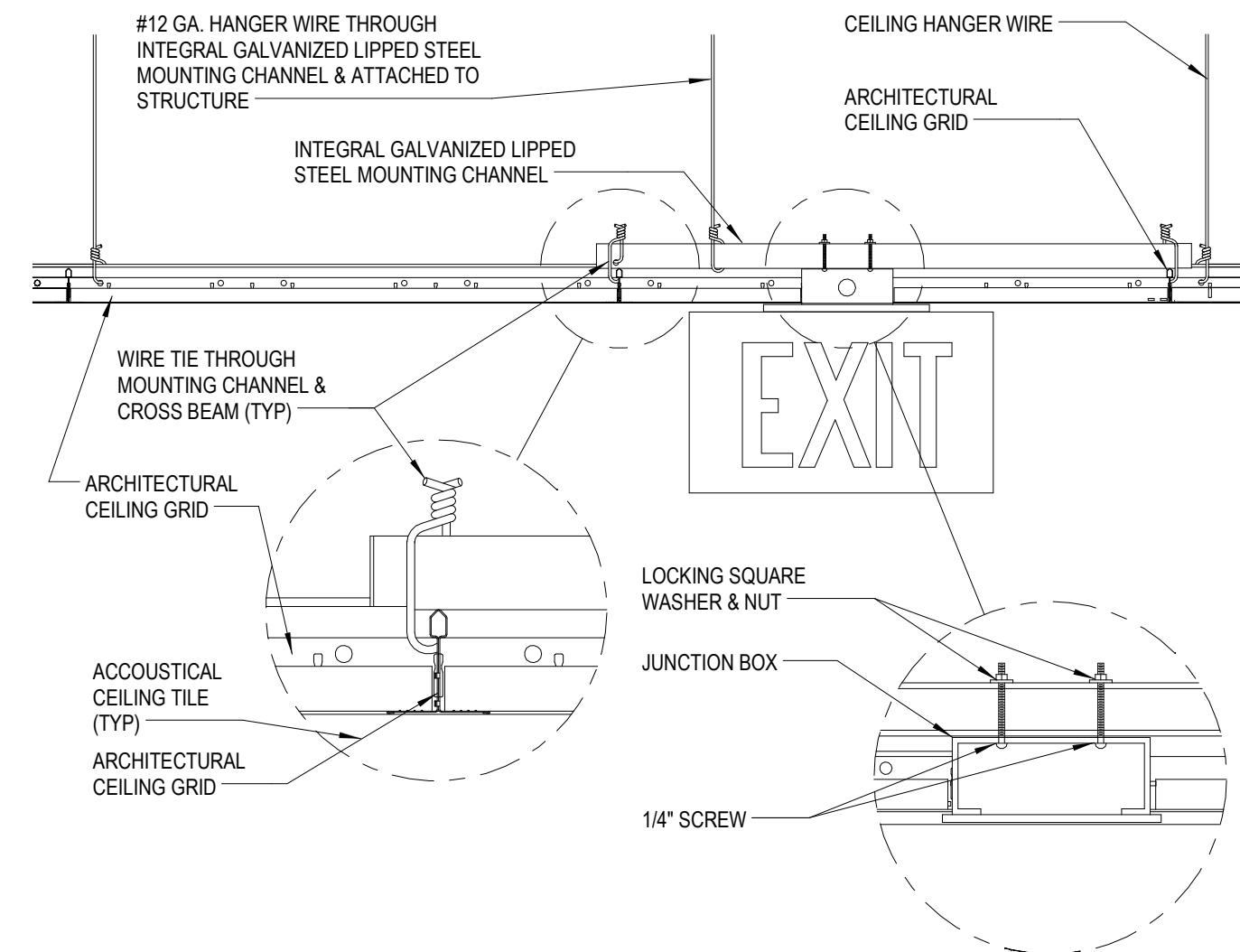
8 CONDUIT TRAPEZE MOUNTING DETAIL  
1/2" = 1'-0"



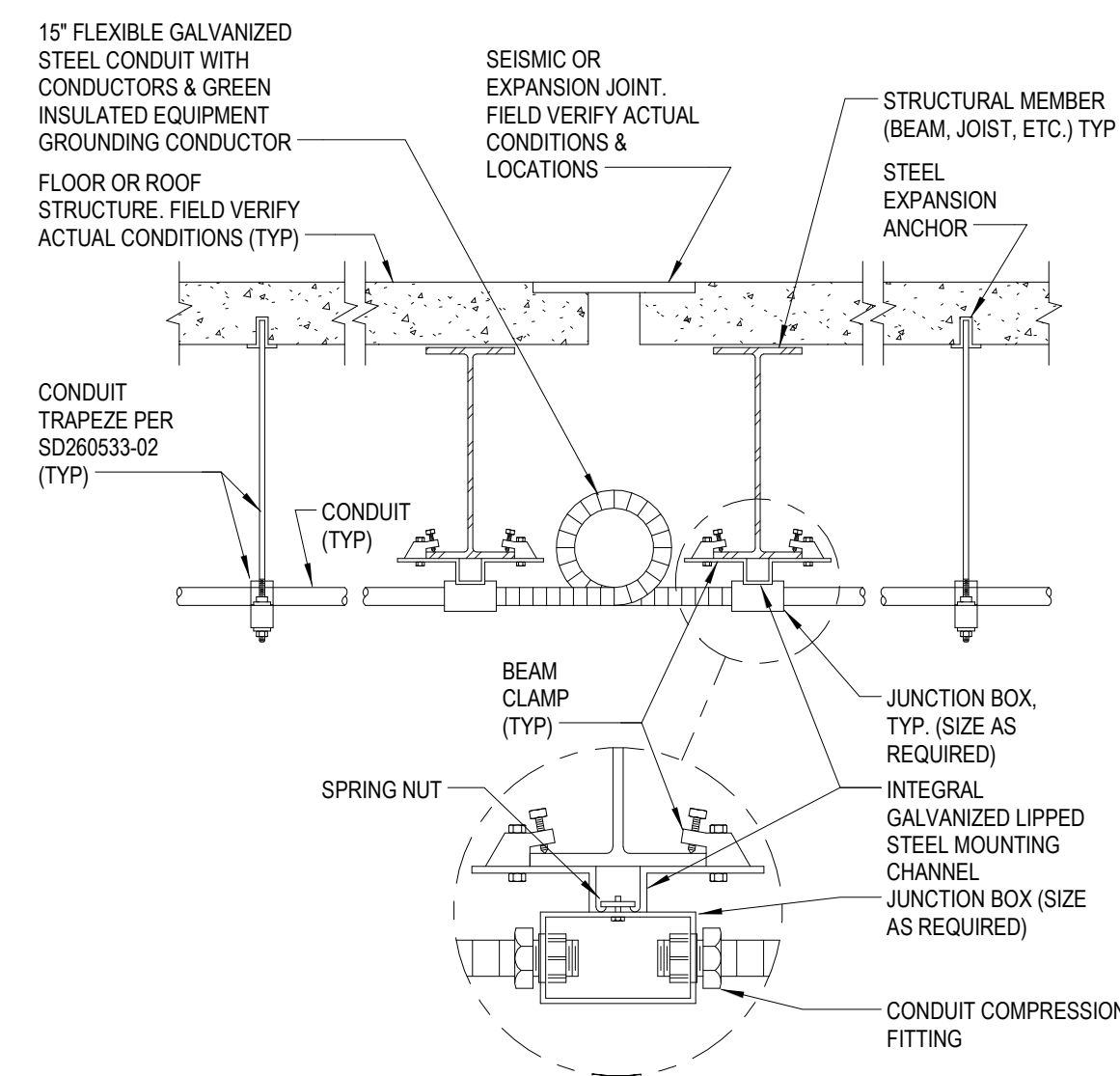
9 CONDUIT AND WIREWAY MOUNTING DETAIL  
3/8" = 1'-0"



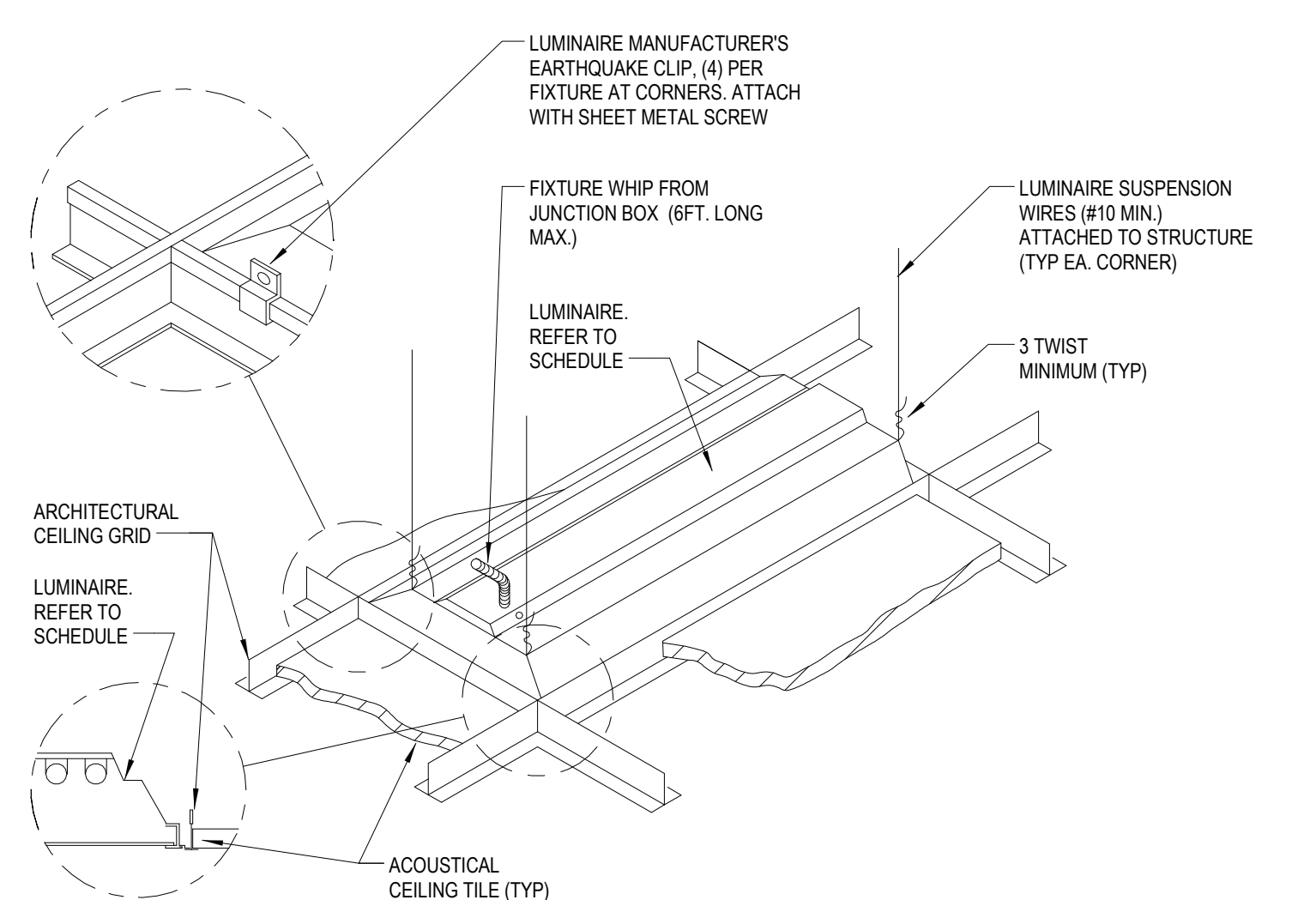
5 EXIT SIGN MOUNTING - GYPBOARD CEILING  
1/2" = 1'-0"



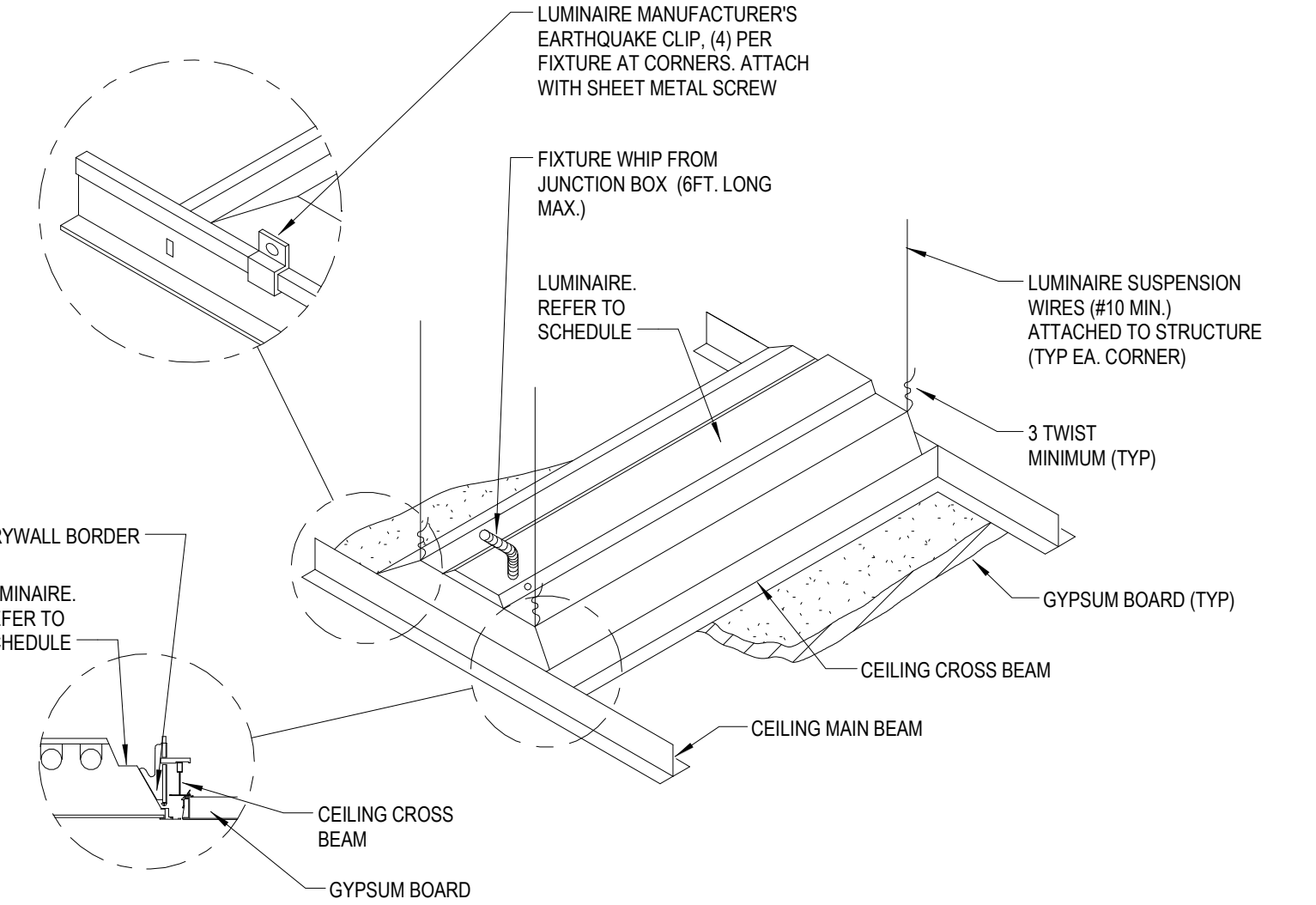
6 EXIT SIGN MOUNTING - GYPBOARD CEILING  
1/2" = 1'-0"



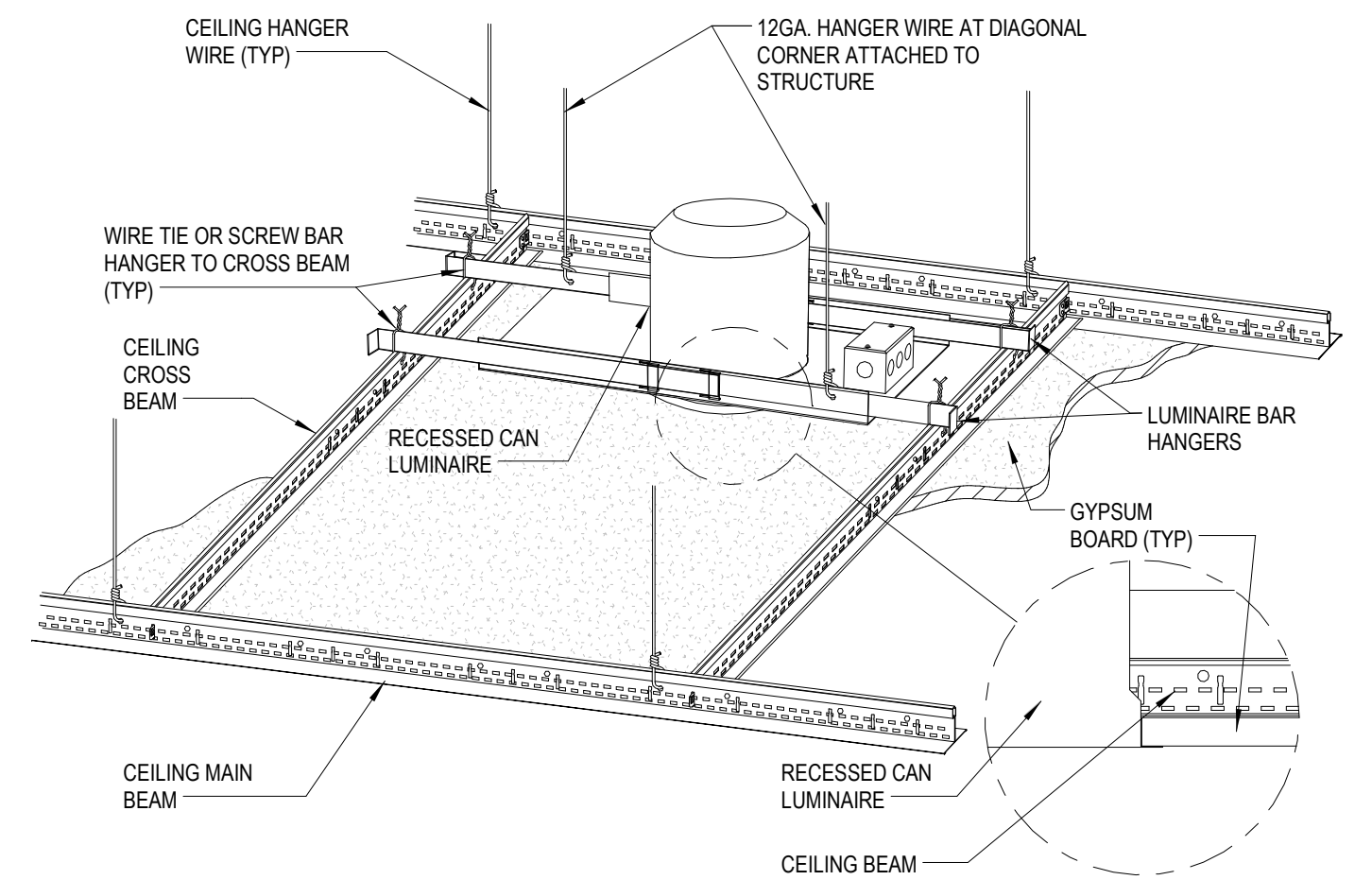
7 CONDUIT JOINT CROSSING DETAIL  
3/8" = 1'-0"



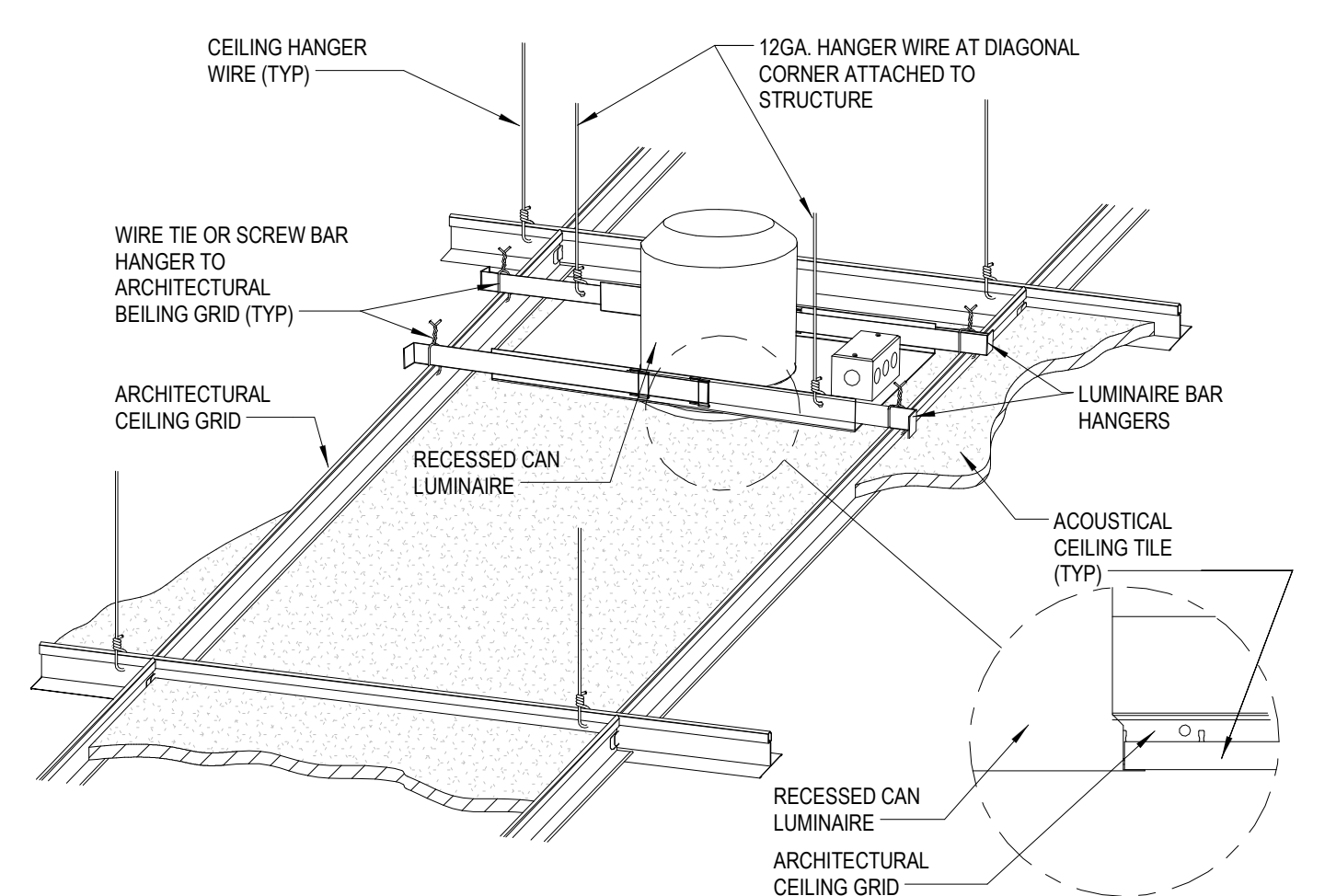
1 LUMINAIRE MOUNTING - LAY-IN CEILING  
1/2" = 1'-0"




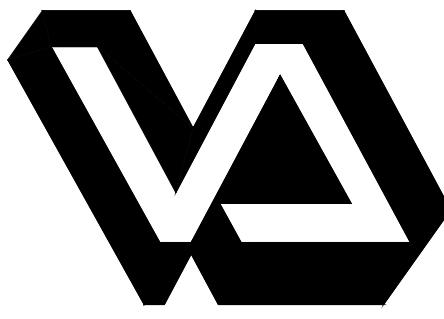

2 LUMINAIRE MOUNTING - GYPBOARD CEILING  
1/2" = 1'-0"



3 DOWN LIGHT MOUNTING - GYPBOARD CEILING  
1 1/2" = 1'-0"



4 DOWN LIGHT MOUNTING - LAY-IN CEILING  
1 1/2" = 1'-0"

1		<b>CONSULTANTS:</b>  725 Prudden Street Lansing, MI 48906 - 517.371.1200  123 West Main Street, Suite 200 Gaylord, MI 49735 - 989.732.8131  648 Monroe Avenue NW, Suite 210 Grand Rapids, MI 49503 - 616.454.9414  1211 Ludington Street Escanaba, MI 49829 - 906.233.9360	 elevating human achievement	 Department of Veterans Affairs John D. Dingell VA Medical Center 4646 John R Street Detroit, MI 48201	Property of the United States Government For Official Use Only <small>Do not remove this notice. Properly Destroy documents when no longer needed.</small>	Drawing Title <b>ELECTRICAL DETAILS</b>	Project Title <b>RENOVATIONS TO THE SOUTH LOBBY ENTRANCE</b>	Date 03/01/2016 Project Number 553-304	<b>Office of Facilities Management</b>   Department of Veterans Affairs		
2					File Name	Approved: Division Chief	Building Number	Checked MJJ		Drawn PBB	Drawing Number
3					File Location	Approved: Service Director	Location 4646 JOHN R. STREET DETROIT, MI 48201	E-502			
4											
5											
Revisions:		Date									



A

three inches = one foot

B

one and one half inches = one foot

C

one inch = one foot

D

three quarters inch = one foot

E

one half inch = one foot

F

one quarter inch = one foot

one eighth inch = one foot

1		
2		
3		
4		
5		
Revisions:		Date

CONSULTANTS:

725 Prudden Street  
Lansing, MI 48906 - 517.371.1200  
  
123 West Main Street, Suite 200  
Gaylord, MI 49735 - 989.732.8131  
  
648 Monroe Avenue NW, Suite 210  
Grand Rapids, MI 49503 -  
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1211 Ludington Street  
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File Name

File Location

Drawing Title

ELECTRICAL DETAILS

Approved: Division Chief

Approved: Service Director

Project Title

RENOVATIONS TO THE SOUTH  
LOBBY ENTRANCE

Building Number

Checked  
MJJ

Drawn  
PBB

Location  
4646 JOHN R. STREET DETROIT, MI 48201

Date

03/01/2016

Project Number  
553-304

Drawing Number

E-503

Office of  
Facilities  
Management



Department of  
Veterans Affairs

FIRE EXTINGUISHER MONITORING SYSTEM  
SOLE SOURCE: ENGAGE

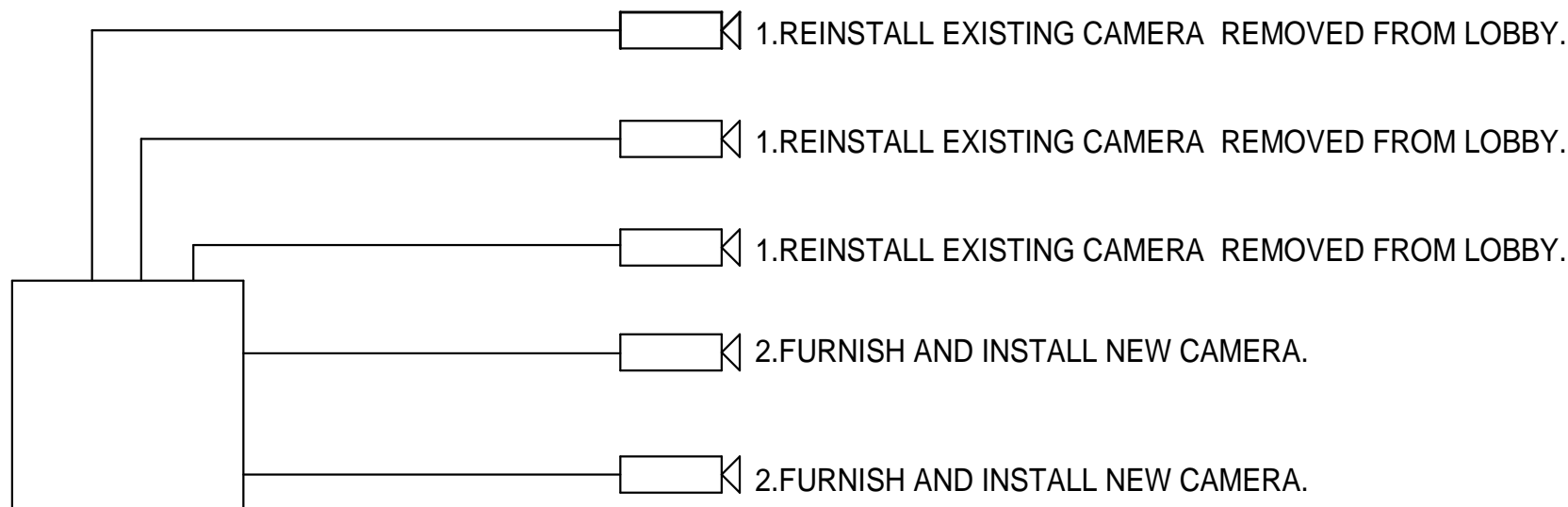
SOLE SOURCE SUPPLIER CONTACT INFORMATION:  
SIMPLEX GRINNELL AND VANGUARD APPROVED PROVIDERS

NOTE:  
CONTRACTOR SHALL HAVE ENGAGE REPRESENTATIVE  
MODIFY PROGRAMMING FOR ALL NEW COMPONENTS.

EXISTING WIRELESS COMMUNICATION LOCATED IN  
INTERSTITIAL SPACES. WIRELESS DEVICES TO REMAIN  
AS-IS. (TYP.)

BATTERY OPERATED WIRELESS MONITORING DEVICE/  
LOCATION: CONTRACTOR TO PROVIDE AND INSTALL NEW  
AND RELOCATED DEVICES. PROVIDE THREE GANG BOX  
AND COORDINATE LOCATION WITH ENGAGE AND FIRE  
EXTINGUISHER CABINET MANUFACTURER. (TYP.)

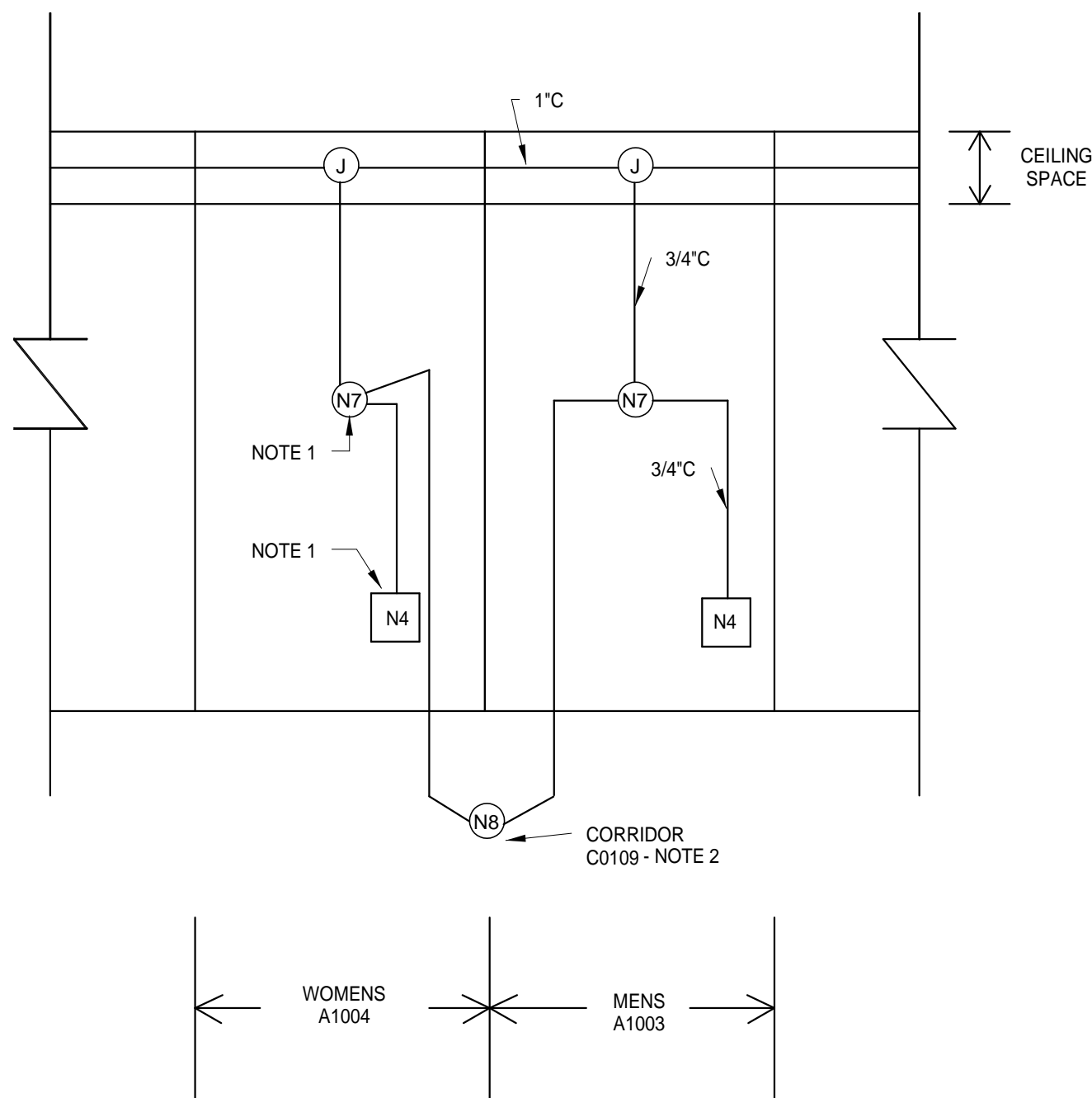
3 FIRE EXTINGUISHER VISUAL MONITORING  
N.T.S.



NOTES:

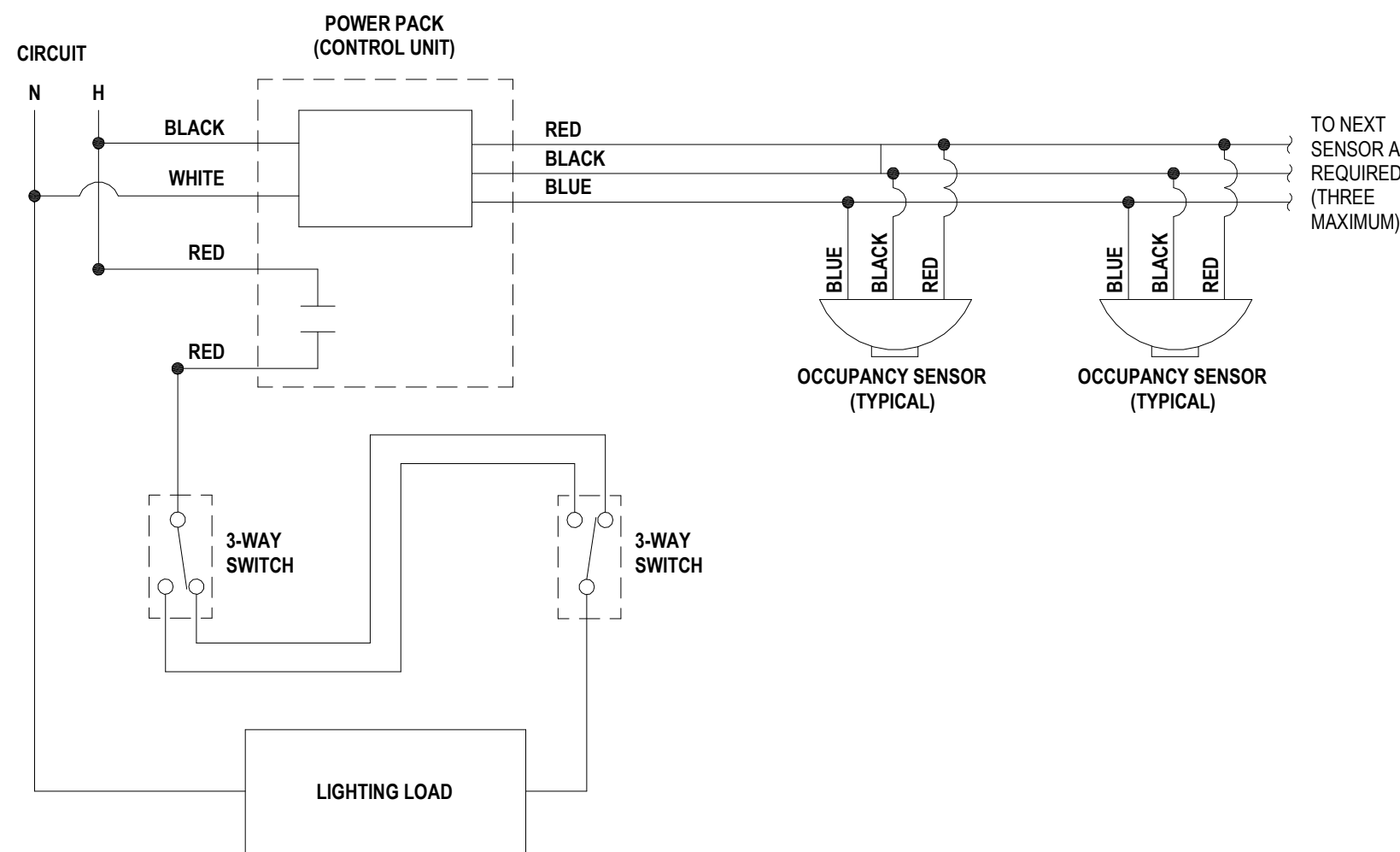
- COORDINATE EXACT CAMERA LOCATIONS WITH THE OWNER.
- COORDINATE SYSTEM MODIFICATIONS WITH THE MANUFACTURER OF THE STARGATE CCTV SYSTEM.
- GROUND ALL SYSTEM CONDUITS IN ACCORDANCE WITH CCTV SYSTEM MANUFACTURER'S RECOMMENDATIONS.

4 CCTV CAMERA RISER  
N.T.S.

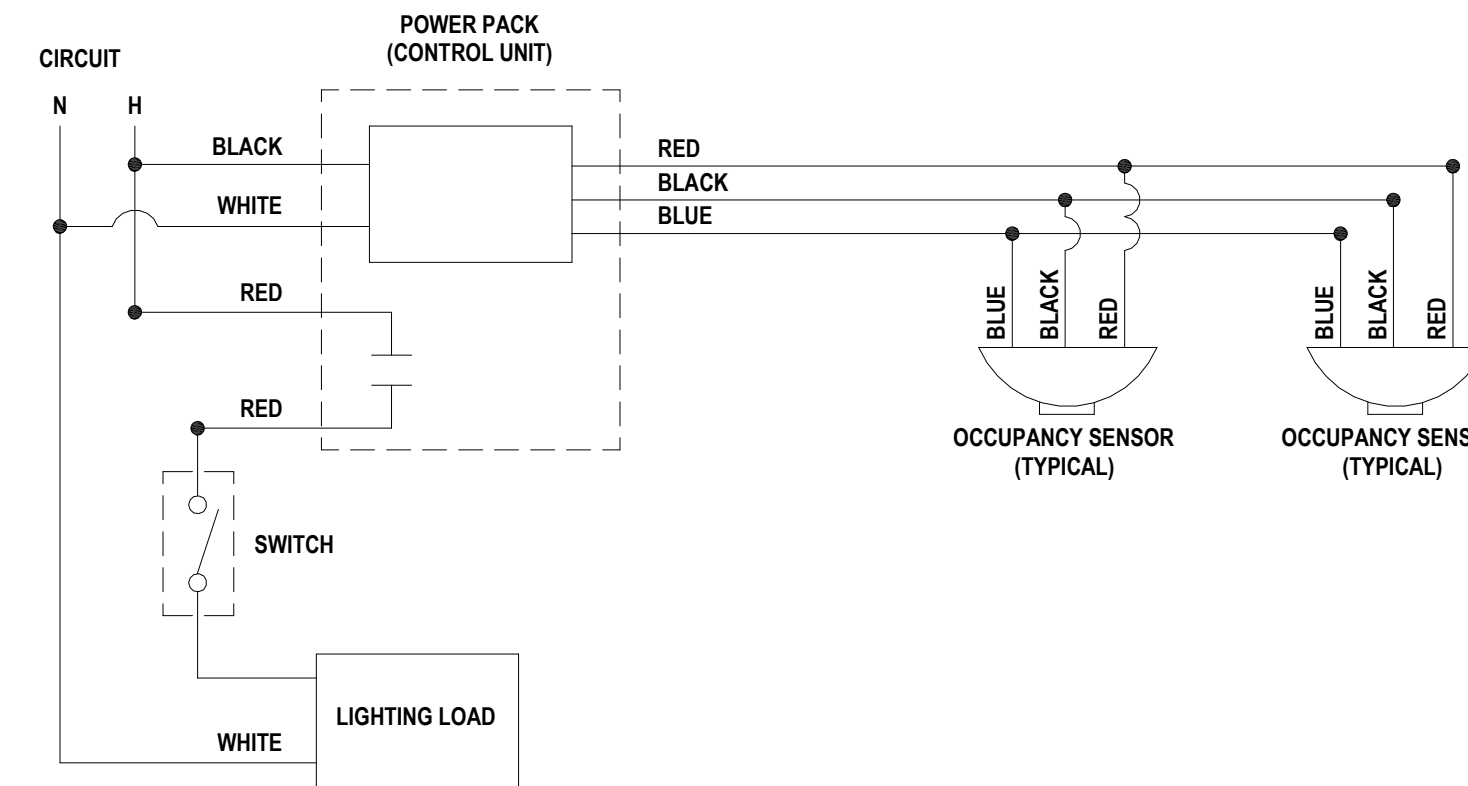


- REINSTALL EXISTING DEVICES REMOVED FROM WOMEN'S AND MEN'S PUBLIC TOILETS A1000 AND A1001 RESPECTIVELY.
- FURNISH AND INSTALL NEW DEVICE. CONFIGURE TO BE ACTIVATED WHEN EITHER TOILET STATION IS ACTIVATED.
- EXTEND EXISTING NURSE CALL SYSTEM CABLING AS REQUIRED TO SERVE NEW LOCATIONS.
- VERIFY EXACT LOCATIONS OF SYSTEM OUTLETS WITH THE OWNER AND ARCHITECT.
- ALL WIRING, DEVICES AND FINAL CONNECTIONS SHALL BE PROVIDED BY THE OWNER'S APPROVED NURSE CALL SYSTEM CONTRACTOR.
- ALL CONDUIT AND BACK BOXES SHALL BE APPROVED BY THE NURSE CALL SYSTEM VENDOR.
- COORDINATE SYSTEM MODIFICATIONS WITH THE MANUFACTURER OF THE NURSE CALL SYSTEM, RAULAND-BORG, RESPONDER 5 SYSTEM.
- GROUND ALL NURSE CALL SYSTEM CONDUITS IN ACCORDANCE WITH NURSE CALL SYSTEM MANUFACTURER'S RECOMMENDATIONS.
- INSTALL ALL NURSE CALL SYSTEM CABLING IN RACEWAY.

5 NURSE CALL SYSTEM PARTIAL RISER DIAGRAM  
N.T.S.

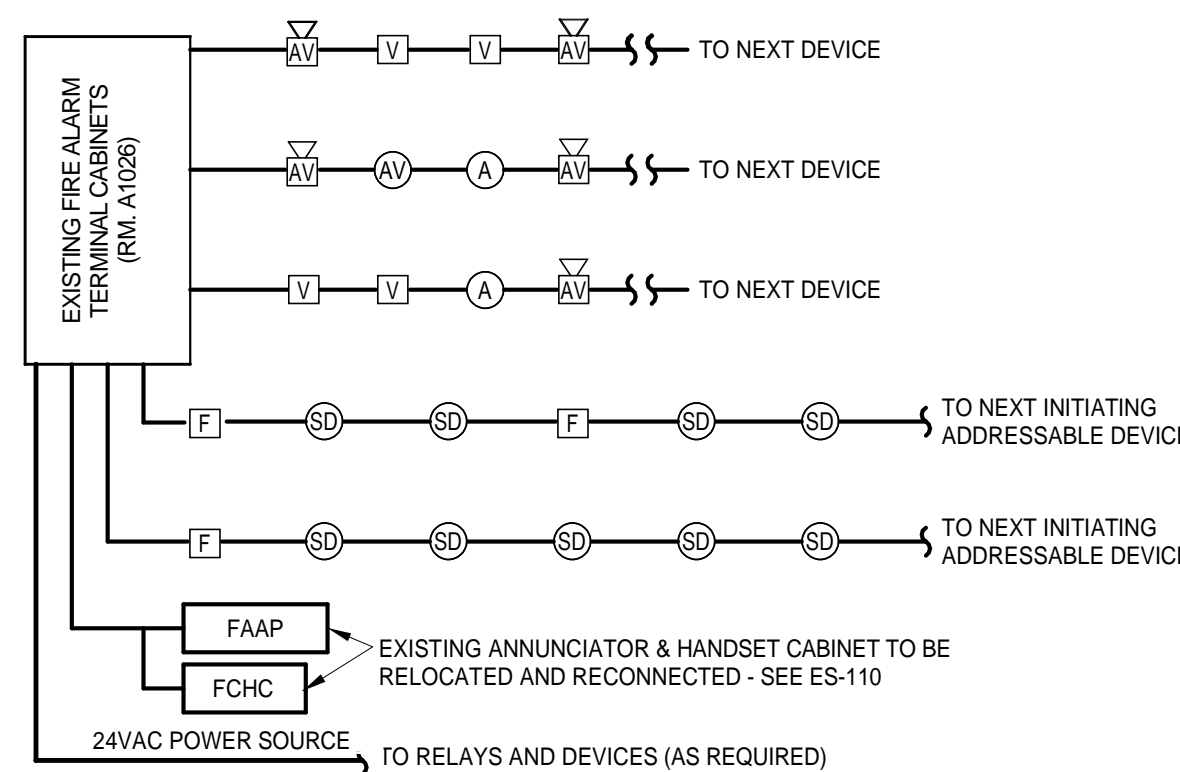


SINGLE CIRCUIT - ONE TO THREE OCCUPANCY SENSORS WITH 3-WAY OVERRIDE 'OFF'



SINGLE CIRCUIT - ONE OR TWO OCCUPANCY SENSORS WITH OVERRIDE 'OFF'

1 LIGHTING CONTROL - OCCUPANCY SENSORS (TYP.)  
N.T.S.



- NOTES:
- CONTRACTOR TO TURN OVER ALL DEMOLISHED FIRE ALARM EQUIPMENT TO OWNER.
  - MODIFY AND EXPAND EXISTING SYSTEM AS REQUIRED FOR REMODEL OF SPACE AS SHOWN ON PLANS.
  - FIRE ALARM PROVIDER TO PROVIDE COMPLETE AND FUNCTIONAL CODE COMPLIANT SYSTEM AS DESCRIBED IN PROJECT SPECIFICATION SECTION 28 31 00. QUANTITIES, LOCATIONS AND TYPES OF DEVICES SHALL BE AS REQUIRED TO MEET ALL APPLICABLE CODES.
  - CONTRACTOR TO UTILIZE EXISTING INTERSTITIAL WIREWAYS FOR DISTRIBUTION OF FIRE ALARM CABLES. REUSE EXISTING PENETRATIONS.

FIRE ALARM SYSTEM SUPPLIER CONTACT  
INFORMATION:

SIMPLEX GRINNELL - (248) 427-5050 ext.5130  
TOM MARTIN

2 FIRE ALARM PARTIAL SYSTEM RISER DIAGRAM  
N.T.S.

A

B

C

D

E

F

A

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

one half inch = one foot

three eighths inch = one foot

one quarter inch = one foot

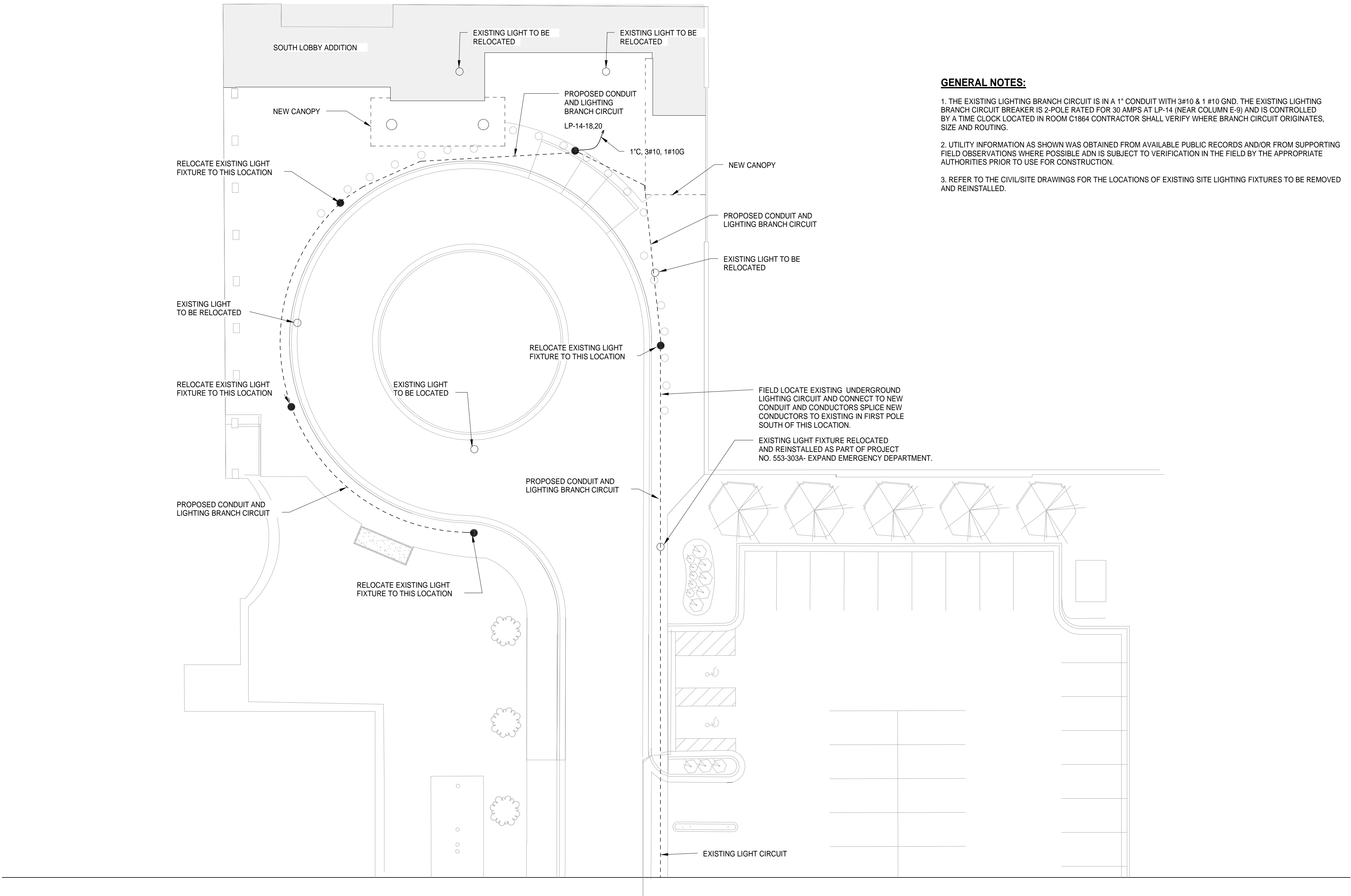
one eighth inch = one foot

one eighth inch = one foot

one eighth inch = one foot

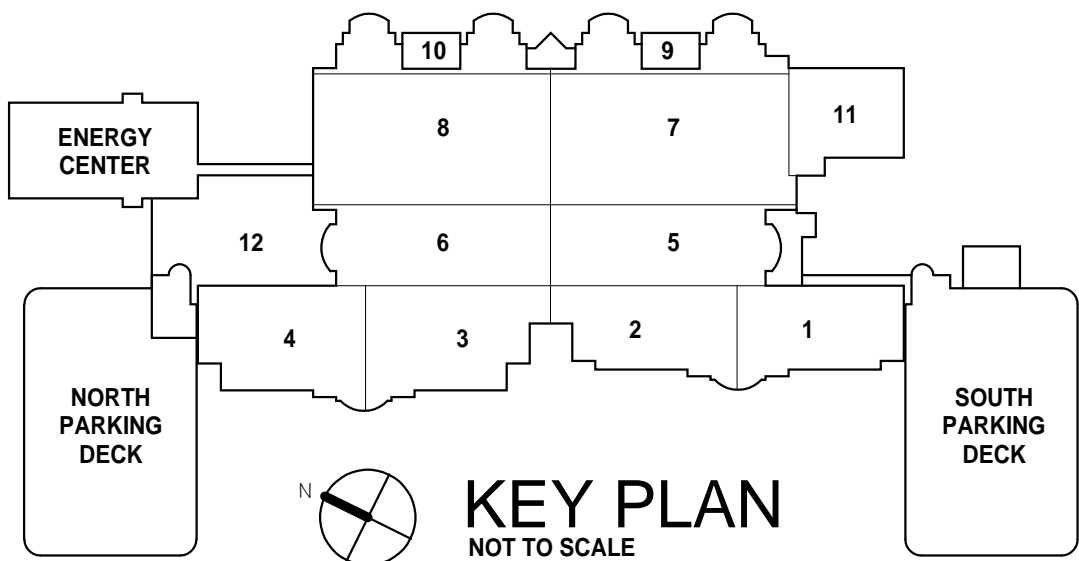
one eighth inch = one foot

one eighth inch = one foot



- GENERAL NOTES:**
1. THE EXISTING LIGHTING BRANCH CIRCUIT IS IN A 1" CONDUIT WITH 3#10 & 1 #10 GND. THE EXISTING LIGHTING BRANCH CIRCUIT BREAKER IS 2-POLE RATED FOR 30 AMPS AT LP-14 (NEAR COLUMN E-9) AND IS CONTROLLED BY A TIME CLOCK LOCATED IN ROOM C1864 CONTRACTOR SHALL VERIFY WHERE BRANCH CIRCUIT ORIGINATES, SIZE AND ROUTING.
  2. UTILITY INFORMATION AS SHOWN WAS OBTAINED FROM AVAILABLE PUBLIC RECORDS AND/OR FROM SUPPORTING FIELD OBSERVATIONS WHERE POSSIBLE ADN IS SUBJECT TO VERIFICATION IN THE FIELD BY THE APPROPRIATE AUTHORITIES PRIOR TO USE FOR CONSTRUCTION.
  3. REFER TO THE CIVIL/SITE DRAWINGS FOR THE LOCATIONS OF EXISTING SITE LIGHTING FIXTURES TO BE REMOVED AND REINSTALLED.

Proposed Electrical Site Plan  
1/16" = 1'-0"



1		
2		
3		
4		
5		
Revisions:		Date

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725 Prudden Street  
Lansing, MI 48906 - 517.371.1200  
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File Name		Approved: Division Chief		Building Number	Checked Checker	Drawn Author	Drawing Number <b>EC-101</b>		
File Location		Approved: Service Director		Location 4646 JOHN R. STREET DETROIT, MI 48201					