CLEVELAND METROPOLITAN SCHOOL DISTRICT

GARRETT MORGAN ACADEMY HVAC UPGRADES 2018





	DRAWING INDEX							
1	T-01	TITLE PAGE, NOTES AND DRAWING INDEX						
2	M-01	EXISTING FIRST FLOOR MECHANICAL PLAN						
3	M-02	EXISTING SECOND FLOOR MECHANICAL PLAN						
4	M-03	EXISTING THIRD FLOOR MECHANICAL PLAN						
5	E-01	EXISTING LOWER LEVEL ELECTRICAL PLAN & S-I SCOPE						
6	E-02	EXISTING FIRST FLOOR ELECTRICAL PLAN						
7	E-03	EXISTING SECOND FLOOR ELECTRICAL PLAN						
8	E-04	EXISTING THIRD FLOOR ELECTRICAL PLAN						
9	E-05	EXISTING MAIN POWER DISTRIBUTION PLAN						
10	E-06	EXISTING PANELBOARD SCHEDULES						
11	E-07	EXISTING 1 ST & 2 ND FLOOR POWER RECEPTICLE PLAN						

PROJECT FORMAT OVERVIEW

EACH DESIGN PROFESSIONAL UTILIZED IN CONTRACTOR'S PROPOSAL HAS THE LIBERTY TO ACT WITH THE OWNER'S BEST INTERESTS IN MIND, BASED ON THE INDIVIDUAL SITUATIONS AND BOUNDARIES PRESENTED BEFORE DESIGN BEGINS AND BASED ON QUALIFIED PROFESSIONAL EXPERIENCE. THE CRITERIA SET FORTH IN THESE SPECIFICATIONS AND DRAWINGS IS INTENDED TO BE A GUIDELINE TO LIMIT THE RISKS OF DISSATISFACTION OVER THE BALANCED TOTAL LIFE OF THIS PROJECT, THE FACILITY AND THE OWNER. GENERAL GOALS ARE TO MAKE THE TASKS ASSOCIATED WITH LONG-TERM OWNING/MANAGING THE FACILITY AS EFFECTIVE AND EFFICIENT AS POSSIBLE, INCLUDING THE LIMITATION OF EQUIPMENT/SERVICE PROVIDERS TO THOSE NOTED AS BEING OWNER-PREFERRED AND/OR LISTED WITHIN THESE SPECIFICATIONS.

PROVIDE MATERIALS FOR COMPLETING MECHANICAL AND ASSOCIATED ELECTRICAL INSTALLATIONS AND OTHER FINISHES ACCORDING TO APPLICATIONS REQUIRED USING INDUSTRY STANDARD MEANS-AND-METHODS AND COMMON BEST PRACTICES.

THESE SCHEMATIC DRAWINGS SHOW INTENDED CONFIGURATION OF EQUIPMENT AND MATERIALS WHERE NOTED ALONG WITH EXISTING CONFIGURATIONS FOR REFERENCE TO NEW WORK AND DEMOLITION SCOPES. COORDINATE REMOVAL OF EXISTING AND INSTALLATION OF NEW EQUIPMENT, FIXTURES AND FURNISHINGS WITH INFRASTRUCTURE ALREADY IN-PLACE. CONTRACTOR IS HIGHLY ENCOURAGED TO FIELD VERIFY ALL COUNTS, MEASUREMENTS, DIMENSIONS AND PATHS. DESIGNS AND WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF NATIONAL, STATE & LOCAL CODES AND BEST PRACTICES.

Near West integrerational integreration in

DEMOLITION SCOPE – GENERAL NOTES

(APPLIES TO ALT-1 SCOPE)

(1) GENERAL DEMOLITION INTENT:

SURVEY ALL EXISTING CONDITIONS AND MAKE APPROPRIATE PREPARATIONS FOR REMOVALS TO CORRESPOND DIRECTLY WITH NOTED AND/OR DESIGNED UPDATES TO THE BUILDING. IT IS NOT EXPECTED THAT ANY CONCEALED PIPING WILL BE REMOVED, UNLESS IT IS REQUIRED BY FIELD CONDITIONS OR REPLACEMENT SCOPE OF WORK. OVERALL EXISTING STEAM HEATING SYSTEM IS TO REMAIN UNLESS NOTED-AFFECTED IN THE DEMOLITION SCOPE OF WORK.

(2) EXISTING HAZARDOUS MATERIALS:

STEAM OR PLUMBING LINES.

PROPOSERS CAN ANTICIPATE THAT EXISTING HAZARDOUS MATERIALS ON THE STEAM HEATING SYSTEM, IF THEY EXIST, WILL BE REMOVED PRIOR TO PROJECT COMMENCEMENT.

(3) EXISTING STEAM HEATING EQUIPMENT AND PLUMBING EQUIPMENT (AFFECTED ONLY): COORDINATED WITH ESTABLISHED PROJECT SCHEDULES, PROPERLY REMOVE AND DISPOSE OF EXISTING STEAM HEATING AND PLUMBING EQUIPMENT.

(4) EXISTING STEAM HEATING PIPING AND PLUMBING PIPING (AFFECTED ONLY):
REMOVE AND PROPERLY DISPOSE OF EXPOSED LINES, FITTINGS, VALVES AND TRAPS,
MAKING SAFE AND SEALING AT ALL LOCATIONS WHERE EXISTING MEETS THE FINSHED
SUBSTRATE (WALLS, HARD CEILINGS, FLOORS). IT IS NOT EXPECTED THAT ANY
CONCEALED STEAM PIPING WILL BE REMOVED, UNLESS REQUIRED BY FIELD CONDITIONS
OR REPLACEMENT SCOPE OF WORK. PROPERLY CAP AND MAKE SAFE ANY REMAINING

(5) EXISTING STEAM HEATING CONTROLS (AFFECTED ONLY):

RÉMOVE AND PROPERLY DISPOSE OF EXPOSED PNEUMATIC LINES AND WIRING, FITTINGS, VALVES, MAKE SAFE AND SEAL AT ALL LOCATIONS WHERE EXISTING MEETS THE FINISHED SUBSTRATE (WALLS, HARD CEILINGS, FLOORS). IT IS NOT EXPECTED THAT AND CONCEALED PNEUMATIC CONTROL LINES WILL BE REMOVED, UNLESS IT IS REQUIRED BY FIELD CONDITIONS OR REPLACEMENT SCOPE OF WORK.

MECHANICAL SYSTEMS – GENERAL NOTES

(APPLIES TO ALL DRAWINGS)

(1) GENERAL HVAC INTENT:

GENERAL INTENT IS TO DESIGN AND PROPERLY INSTALL A FULLY-FUNCTIONAL AND COMPLIANT HVAC SYSTEM TO CORRESPOND DIRECTLY TO NOTED/DESIGNED UPDATES TO THE BUILDINGS. IT EXPECTED THAT A MINI-SPLIT HEAT PUMP SYSTEM BE EMPLOYED AS A BASIS-OF-DESIGN AND BE COMPLETELY COORDINATED WITH ACCOMPANYING DOCUMENTED SCOPES OF WORK.

(2) DESIGN CRITERIA

PROPOSERS SHOULD REFER TO OVERALL SPECIFICATIONS AND ACCOMPANYING OWNER'S PROJECT REQUIREMENT (OPR) DOCUMENTS PUBLISHED FOR DESIGN INTENT AND GUIDELINES.

(3) DESIGN & CONSTRUCTION COORDINATION:

PROPOSERS TO IDENTIFY AND COORDINATE REMOVALS OF EXISTING EQUIPMENT (REFER TO DEMOLITION NOTES) AND COMPLETE IMPLEMENTATION OF NEW HVAC SYSTEM. THIS COORDINATION/CONSTRUCTION INCLUDES, BUT IS NOT LIMITED TO:

- MAIN HVAC EQUIPMENT: MINI-SPLIT HEAT PUMP
- AUXILIARY HEATING-ONLY EQUIPMENT WHERE APPLICABLE.
- CONDENSATE DRAINAGE
- HVAC ELECTRIC POWER SYSTEMS
- HVAC LOW-VOLTAGE SYSTEM COMPONENTS (UNITARY CONTROLS, INTERFACE TO FIRE ALARM/SECURITY SYSTEMS, ETC.)
 EVALUATION/USE OF SUBSTRATE COMPONENTS IN GOOD CONDITION (ROOFS, CEILING/FLOORS, MISC. SUPPORTS, ETC.)

(4) MAIN EQUIPMENT LOCATIONS – GENERAL NOTES:

COORDINATED WITH ESTABLISHED PROJECT GUIDELINES, PROPERLY DESIGN/LOCATE NEW HVAC EQUIPMENT FOR FUNCTIONALITY, ACOUSTICAL PERFORMANCE & SERVICING AND MAKE PREPARATIONS FOR ALL ASSOCIATED WORK REQUIRED BY OVERALL SCOPES OF WORK (POWER, CONTROL, DRAINS, CEILINGS, LIGHTS, ETC.).

- OUTDOOR EQUIPMENT: ROOFS PREFERRED, GRADE LOCATIONS REQUIRE DESIGNED VANDAL PROTECTION.
 INDOOR EQUIPMENT: ABOVE-CEILING IN CLASSROOMS IS PREFERRED, FAN COIL CHOICE TO MATCH SPACE LAYOUT/FUNCTIONS AND COORDINATED PIPING LAYOUTS.
- CENTRAL VENTILATION EQUIPMENT EXISTING OPERABLE WINDOWS, MECHANICAL/UTILITY SPACES, ROOFS AND EXISTING WALL PENETRATIONS PREFERRED.

(5) HVAC PIPING, VENTING & DRAINING:

DESIGN AND PROPERLY INSTALL MINI-SPLIT REFRIGERANT LINES, FITTINGS, VALVES, INSULATION ACCORDING TO MANUFACTURER'S INSTRUCTIONS. INTENT IS NOT TO DISTURB FINISHED SUBSTRATE (WALLS, HARD CEILINGS, FLOORS) BEYOND WHAT IS REQUIRED FOR NEW SYSTEM IMPLEMENTATION. PROVIDE CONDENSATE PANS/DRAIN LINES FOR PROPER REMOVAL OF CONDENSATE. PROVIDE APPLIANCE VENTS/FLUES FOR PROPER REMOVAL OF EXHAUST GASES AND PRESSURE RELIEF.

(6) HVAC CONTROLS:

DESIGN AND PROPERLY INSTALL UNITARY/PACKAGED CONTROL SYSTEMS AND COMPONENTS AS REQUIRED FOR THE NEW HVAC SYSTEM/SYSTEMS INTEGRATION SCOPES OF WORK.

(7) HVAC-RELATED POWER SYSTEMS:

DESIGN AND PROPERLY INSTALL ELECTRIC POWER SYSTEMS REQUIRED TO SERVICE NEW HVAC SYSTEMS. COORDINATE SCOPES OF WORK WITH MAIN POWER SYSTEMS/EQUIPMENT UPGRADES (SIZING, LOCATION, DISTRIBUTION PANELS, ETC.) – NO SIGNIFICANT POWER WORK IS EXPECTED BEYOND THAT REQUIRED FOR NEW SYSTEM FUNCTION.

(8) AS-BUILTS:

EXPECTATION IS TO DELIVER THE OWNER AN HVAC AS-BUILT DRAWING SET INCLUDING EQUIPMENT SCHEDULES, FLOOR LAYOUTS, HVAC PIPE & DUCT PATHS AND SIZES, ZONING LAYOUTS, THERMOSTAT LOCATIONS, ETC. "RED-LINE" STYLE AS-BUILTS ARE ACCEPTABLE.

MAIN ELECTRICAL SYSTEMS – GENERAL NOTES

(APPLIES TO ALL DRAWINGS)

(1) GENERAL ELECTRICAL INTENT:

GENERAL INTENT IS TO DESIGN AND INSTALL A FULLY-FUNCTIONAL AND COMPLIANT ELECTRICAL POWER SYSTEM (EQUIPMENT AND DISTRIBUTION) TO CORRESPOND DIRECTLY TO NOTED/DESIGNED UPDATES TO THE BUILDINGS. IT EXPECTED THAT A MINI-SPLIT HEAT PUMP SYSTEM BE EMPLOYED AS A BASIS-OF-DESIGN FOR THE NEW HVAC SYSTEM AND BE COMPLETELY COORDINATED WITH ACCOMPANYING DOCUMENTED SCOPES OF WORK, INCLUDING A REQUIRED SERVICE AMP UPGRADE FOR ADEQUATELY POWERING THE NEW EQUIPMENT IF NECESSARY.

(2) DESIGN CRITERIA:

PROPOSERS SHOULD REFER TO OVERALL SPECIFICATIONS AND ACCOMPANYING OWNER'S PROJECT REQUIREMENT (OPR)
DOCUMENTS PUBLISHED FOR DESIGN INTENT AND GUIDELINES.

(3) DESIGN & CONSTRUCTION COORDINATION:

PROPOSERS TO IDENTIFY AND COORDINATE REMOVALS OF EXISTING EQUIPMENT (REFER TO DEMOLITION NOTES) AND COMPLETE IMPLEMENTATION OF NEW HVAC/ELECTRICAL POWER SYSTEM. THIS COORDINATION/CONSTRUCTION INCLUDES, BUT IS NOT LIMITED TO:

- DISTRIBUTION PANELS (HVAC POWER, LIGHTING/LIGHTING CONTROL PANELS, RECEPTACLE PANELS, INCLUDING REWORKS OF LEGACY PANELS AS REQUIRED, ETC.)

- HVAC LOW-VOLTAGE SYSTEM COMPONENTS (UNITARY CONTROLS, INTERFACE TO FIRE ALARM/SECURITY SYSTEMS, ETC.)
- EVALUATION/USE OF SUBSTRATE COMPONENTS IN GOOD CONDITION (ROOFS, CEILING/FLOORS, MISC. SUPPORTS, ETC.).

(4) MAIN EQUIPMENT LOCATIONS – GENERAL NOTES:

COORDINATED WITH ESTABLISHED PROJECT GUIDELINES, PROPERLY DESIGN/LOCATE NEW MAIN ELECTRICAL EQUIPMENT FOR FUNCTIONALITY, SAFETY & SERVICING AND MAKE PREPARATIONS FOR ALL ASSOCIATED WORK REQUIRED BY OVERALL SCOPES OF WORK (PANELS, EQUIPMENT, CONTROLS, WALLS, CEILINGS, FLOORS, ETC.).

- INDOOR PANEL/LOAD CENTER EQUIPMENT – EXISTING MECHANICAL/UTILITY SPACES AND EXISTING WALL LOCATIONS PREFERRED, SELECTED/CONSTRUCTED FOR HEAVY-DUTY ENVIRONMENTS.

(5) MAIN ELECTRIC RACEWAYS: DESIGN AND PROPERLY INSTALL MAIN ELECTRIC POWER FEEDS, RACEWAYS AND CABLES WITH INSULATION/ACCESS

ACCORDING TO USUAL & CUSTOMARY METHODS AND PERTINENT REGULATIONS. INTENT IS NOT TO DISTURB FINISHED SUBSTRATE (WALLS, HARD CEILINGS, FLOORS) BEYOND WHAT IS REQUIRED FOR NEW SYSTEM IMPLEMENTATION.

(6) HVAC CONTROLS:

COORDINATE WITH MECHANICAL VENDORS AND SYSTEMS INTEGRATOR TO PROPERLY INSTALL UNITARY/PACKAGED CONTROL SYSTEMS & COMPONENTS AS REQUIRED FOR THE NEW HVAC SYSTEMS INTEGRATION SCOPES OF WORK (SYSTEMS INTEGRATION COMPONENTS AS-NOTED BY AGM ENERGY SERVICES).

(7) HVAC-RELATED POWER SYSTEMS:

DESIGN AND PROPERLY INSTALL ELECTRIC POWER SYSTEMS REQUIRED TO SERVICE NEW HVAC SYSTEMS. COORDINATE SCOPES OF WORK WITH MAIN POWER SYSTEMS/EQUIPMENT UPGRADES (SIZING, LOCATION, DISTRIBUTION PANELS, ETC.) AND PROVIDE PROPER MEANS OF FUSING AND DISCONNECT.

(8) <u>AS-BUILTS</u>:

EXPECTATION IS TO DELIVER THE OWNER AN ELECTRICAL AS-BUILT DRAWING SET INCLUDING PANEL SCHEDULES, FLOOR LAYOUTS, COMPLETE ONE-LINE DIAGRAM, ETC.



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PROJECT TITLE:

GARRETT MORGAN ACADEMY HVAC UPGRADES 2018

4016 Woodbine Ave. Cleveland, OH 44113



PROJECT	NUMBER:	80511
DATE DRA	AWN:	5/10/2017
BY:		LSH
<u>#</u>	<u>REVISION</u>	<u>DATE</u>
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SCALE:		AS NOTED

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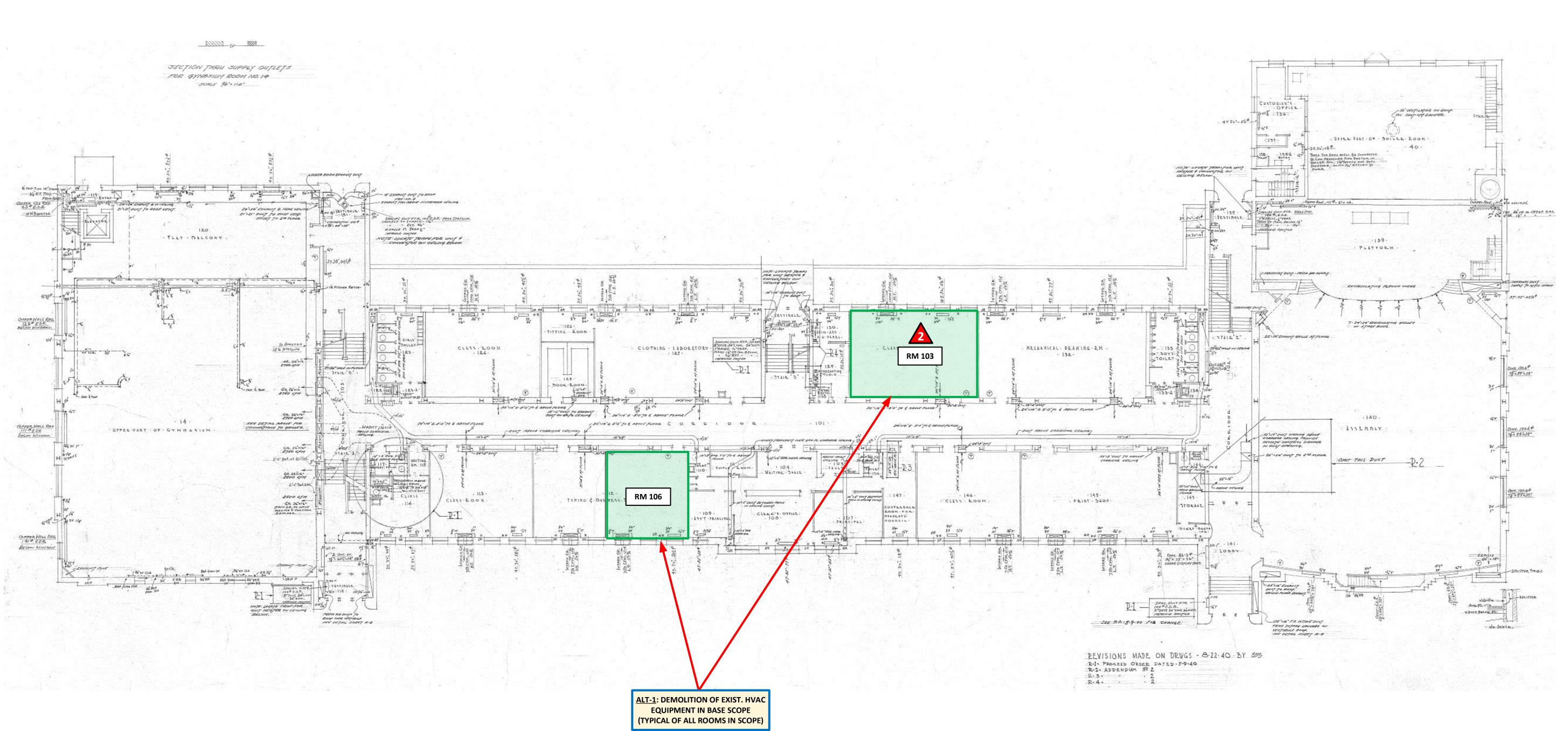
TITLE PAGE, NOTES & DRAWING INDEX

DRAWING NUMBER

T-01

PROJECT SITE LOCATION – 4016 Woodbine Ave. Cleveland, OH 44113

PAGE: 1





EXISTING UNIT VENTILATOR - TYPICAL

SCOPE KEY



INSTALLATION OF NEW MINI-SPLIT EQUIPMENT IN NOTED ROOMS.



DEMOLITION OF EXISTING HVAC UNIT VENTILATOR EQUIPMENT IN <u>ALL</u> BASE SCOPE IDENTIFIED ROOMS.

EXISTING MECHANICAL PLANS FOR REFERENCE ONLY (NO SCALE) **FIELD VERIFY INFORMATION**



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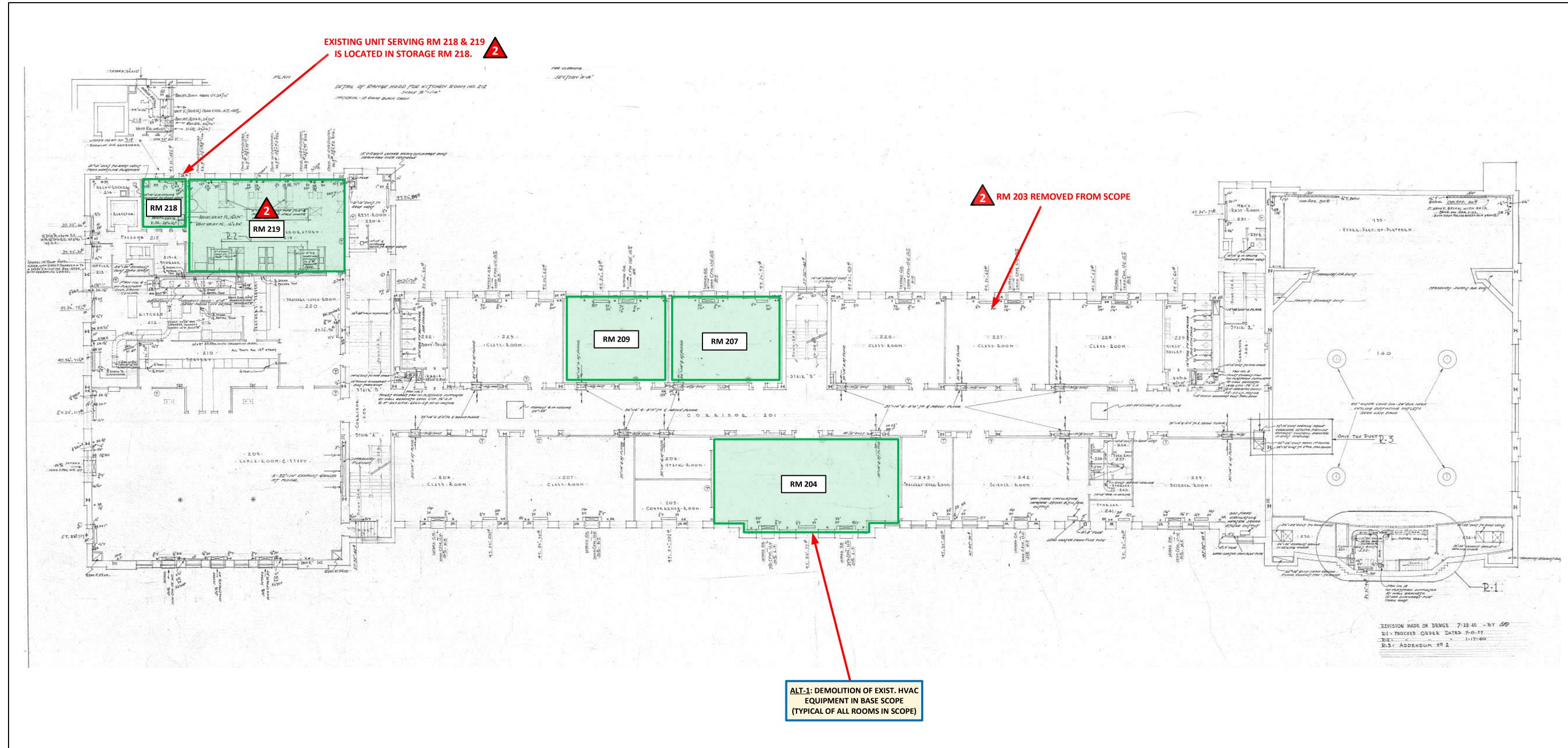
80511 PROJECT NUMBER: 5/10/2017 DATE DRAWN: LSH **REVISION DATE** 1 FOR BID 2/2/18 ADDENDUM 1 3/13/18 ---4 ------5 ------SCALE: **AS NOTED**

DRAWING TITLE:

EXISTING FIRST FLOOR MECHANICAL **PLAN**

DRAWING NUMBER: PAGE: 2 of 11





SCOPE KEY



INSTALLATION OF NEW MINI-SPLIT EQUIPMENT IN NOTED ROOMS.



DEMOLITION OF EXISTING HVAC UNIT VENTILATOR EQUIPMENT IN <u>ALL</u> BASE SCOPE IDENTIFIED ROOMS.

EXISTING MECHANICAL PLANS FOR REFERENCE ONLY (NO SCALE) **FIELD VERIFY INFORMATION**







EXTERIOR ELEVATION AND UV LOUVERS



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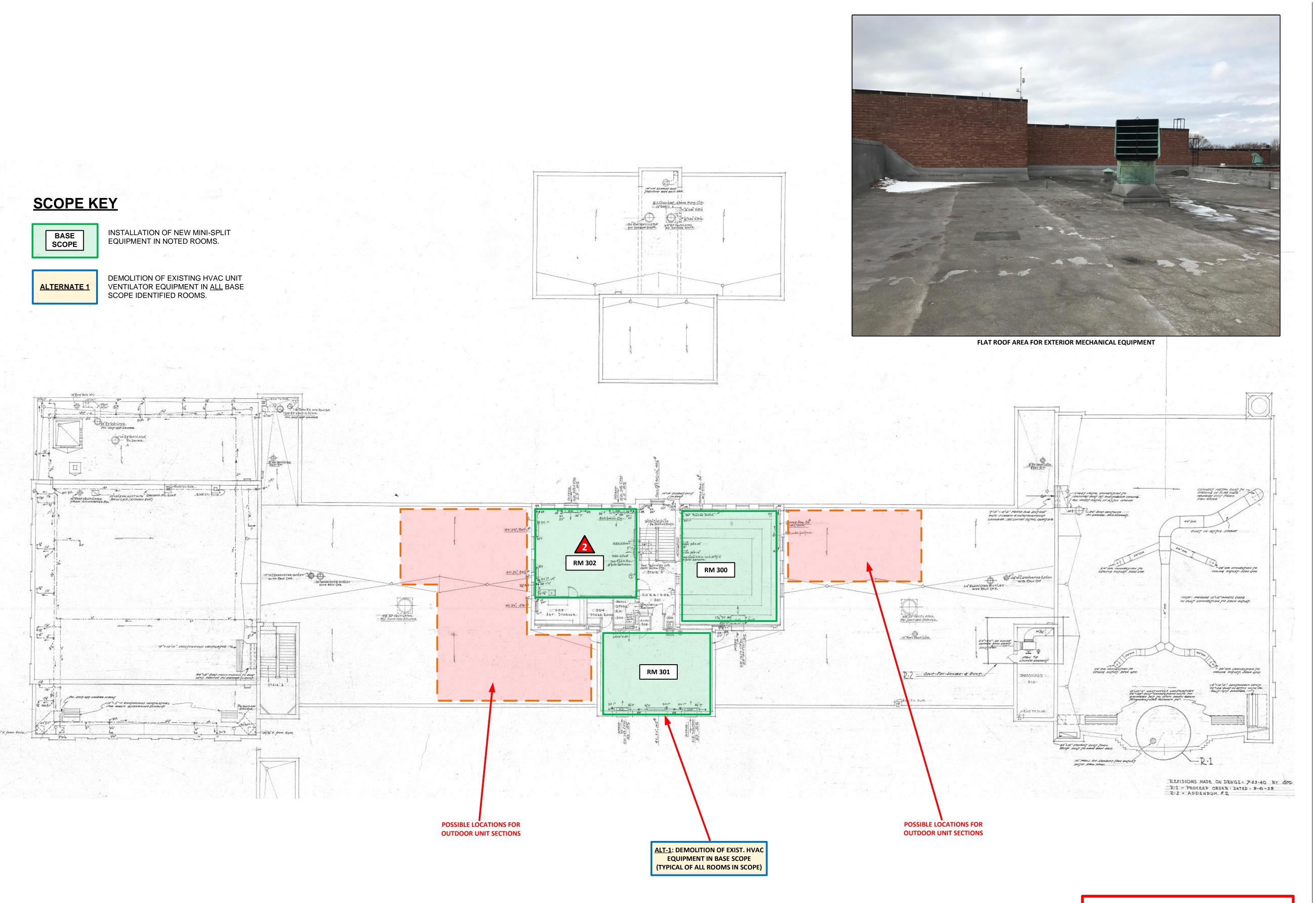
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DRAWING TITLE:

EXISTING SECOND FL MECHANICAL **PLAN**



EXISTING THIRD FLOOR MECHANICAL

EXISTING MECHANICAL PLANS FOR REFERENCE ONLY (NO SCALE) **FIELD VERIFY INFORMATION**

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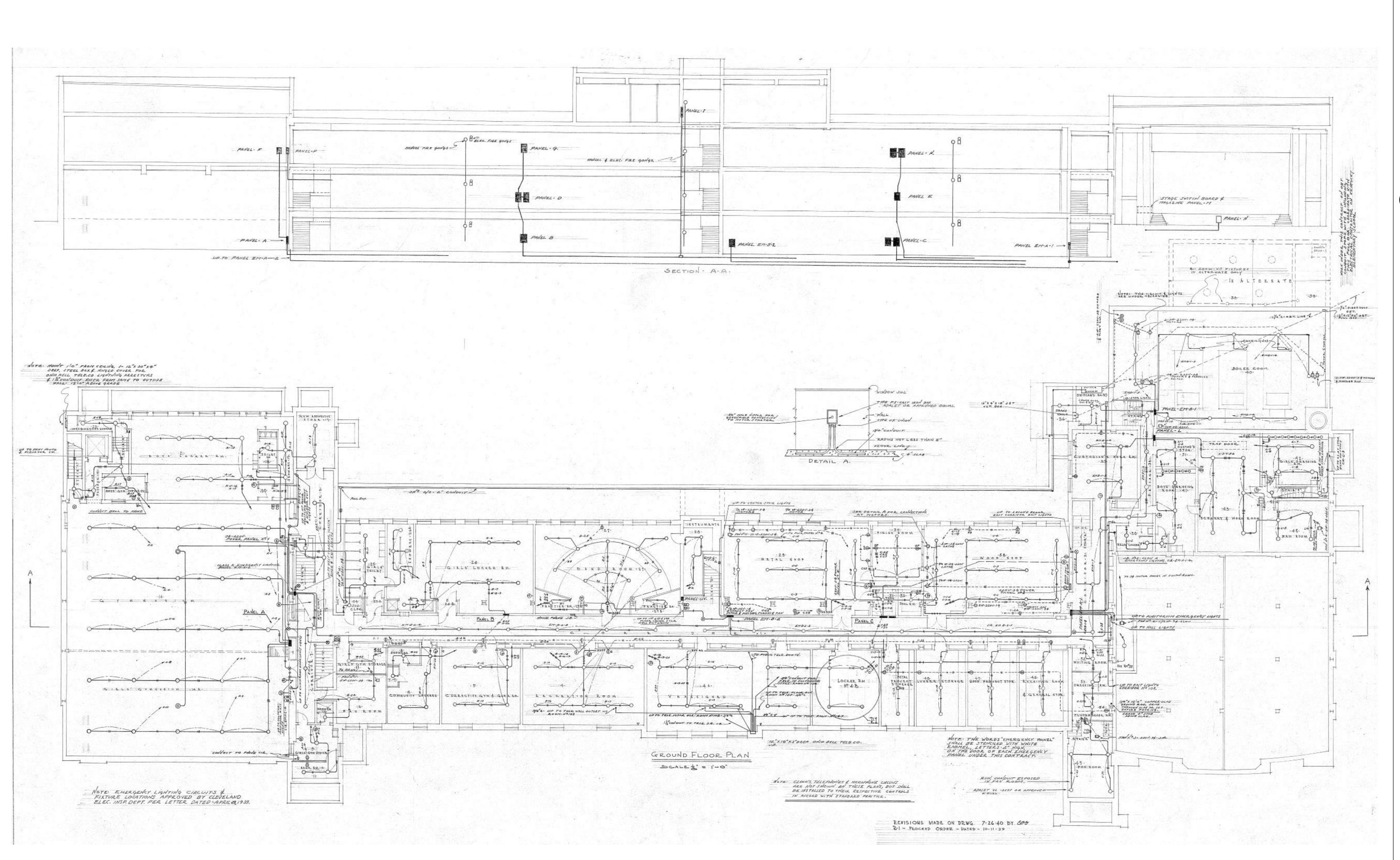
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EXISTING THIRD FLOOR MECHANICAL **PLAN**



EXISTING ELECTRICAL PLANS
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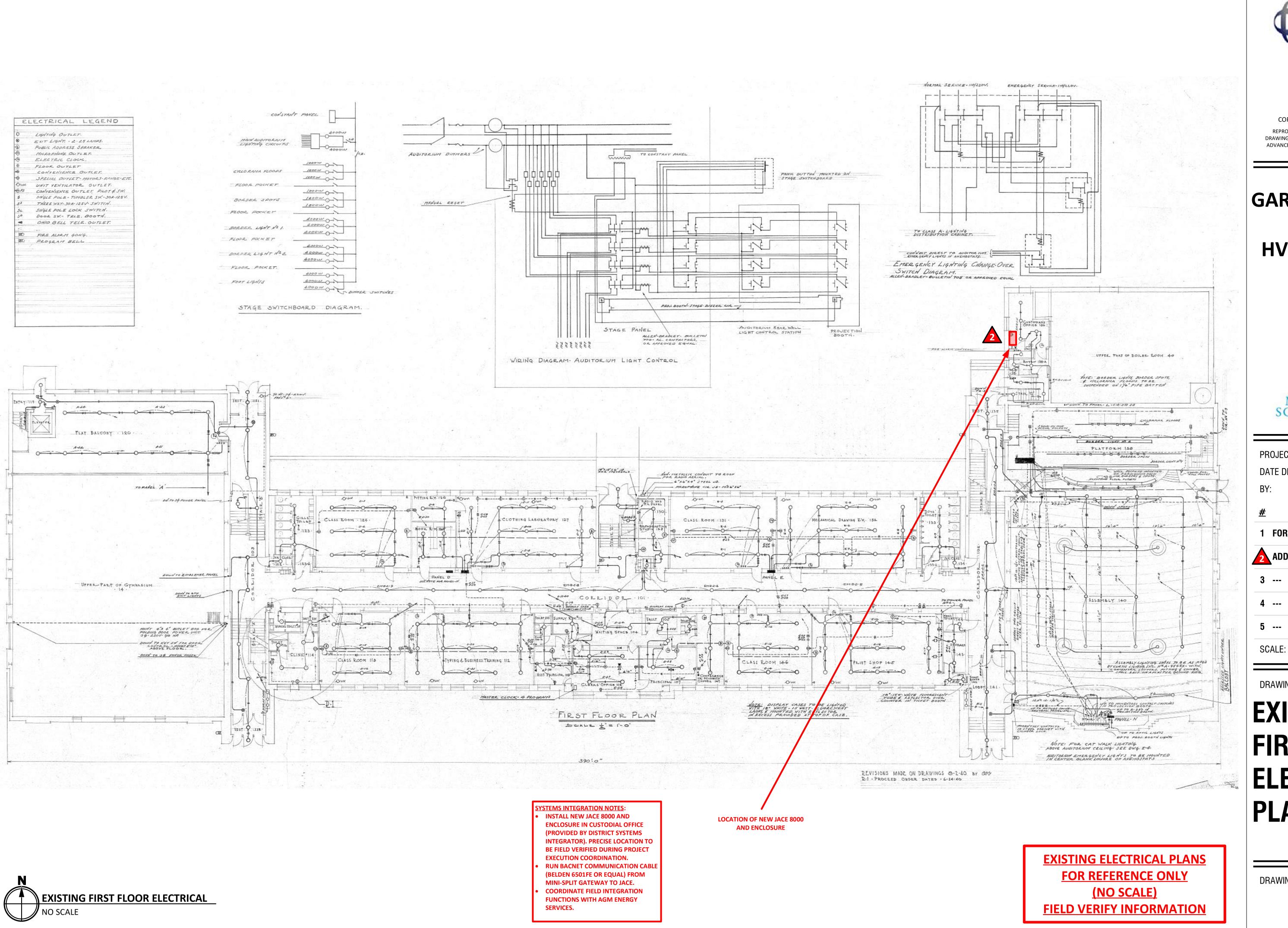
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EXISTING LOWER LEVEL ELECTRICAL PLAN & S-I SCOPE

DRAWING NUMBER:

E-01PAGE: 5 of 11





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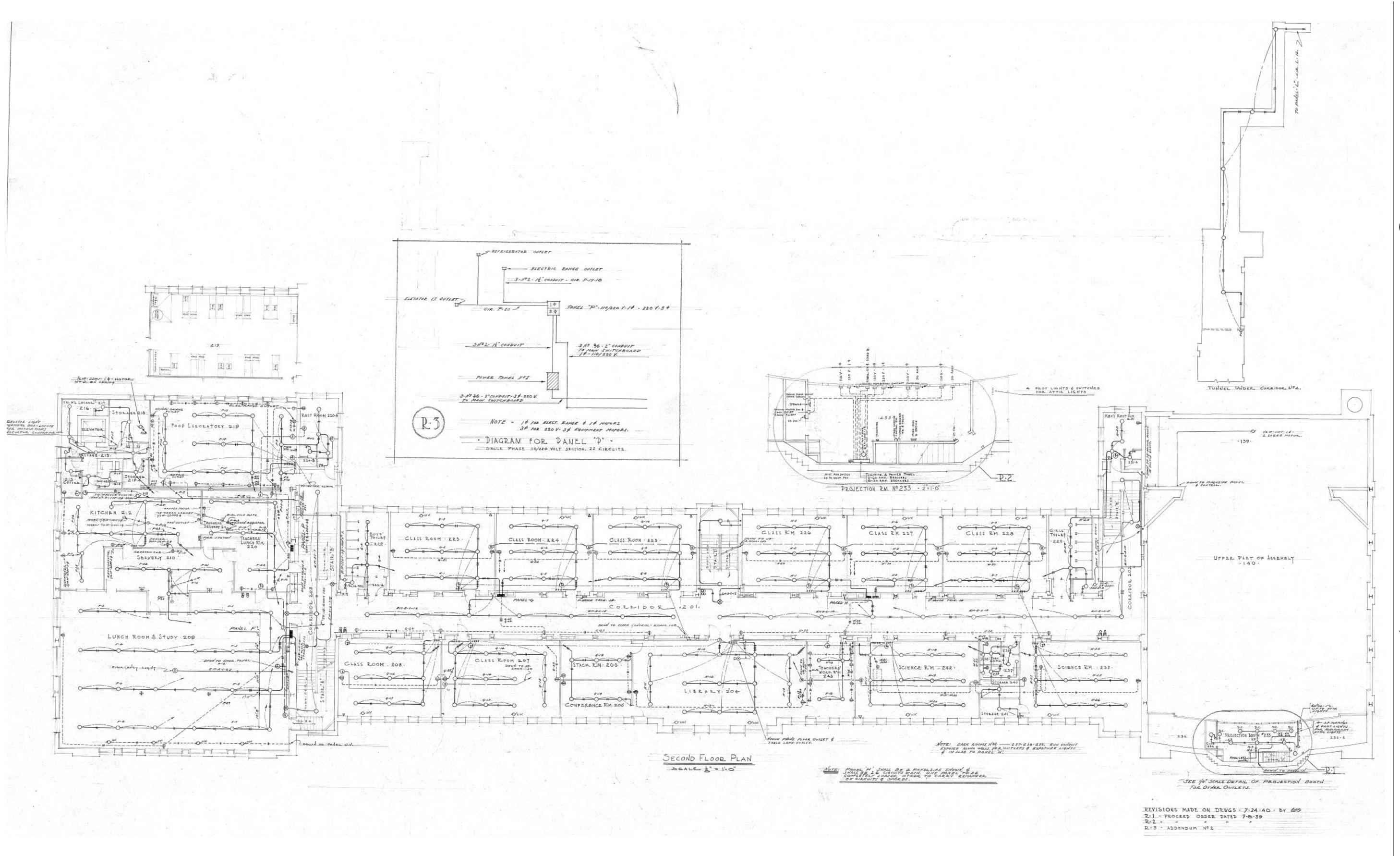
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DRAWING TITLE:

EXISTING FIRST FLOOR **ELECTRICAL PLAN**

DRAWING NUMBER:

6 of 11





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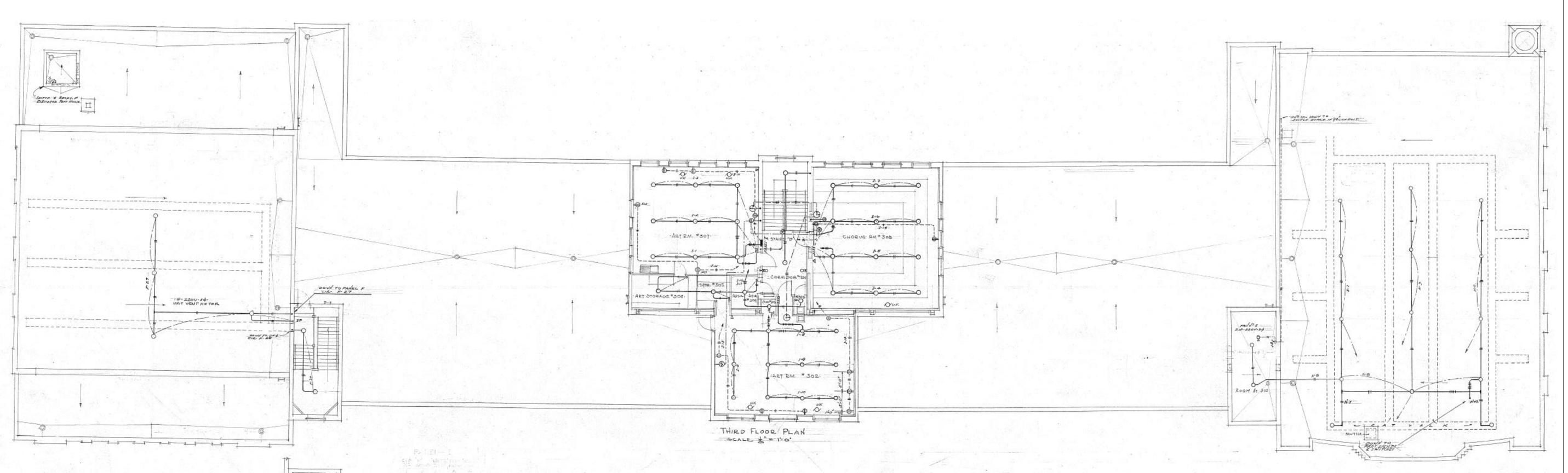
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EXISTING SECOND FL ELECTRICAL PLAN

EXISTING ELECTRICAL PLANS
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E-03PAGE: 7 of 11





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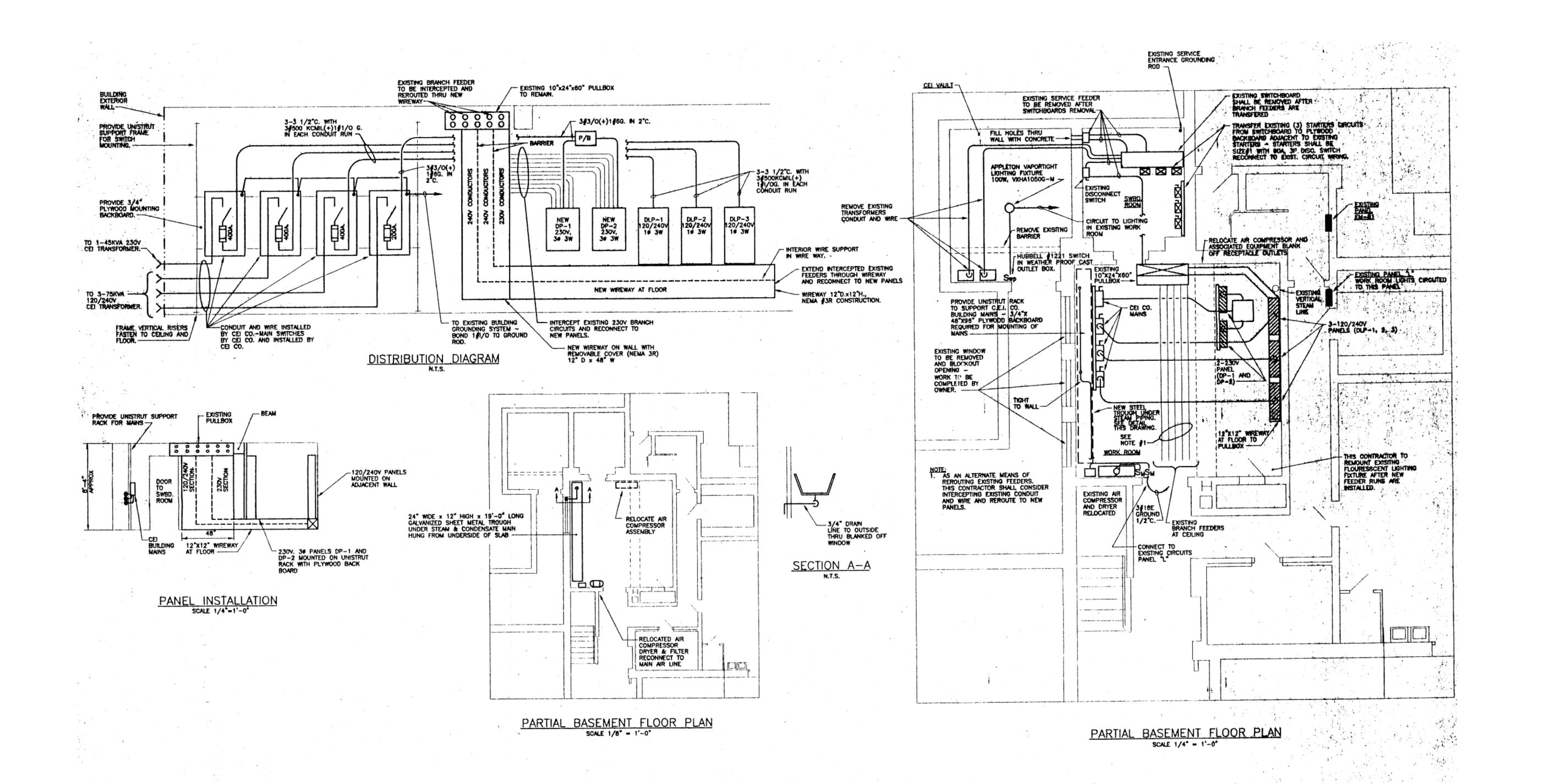
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EXISTING THIRD FLOOR **ELECTRICAL PLAN**

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EXISTING ELECTRICAL PLANS

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EXISTING MAIN POWER DISTRIBUTION PLAN

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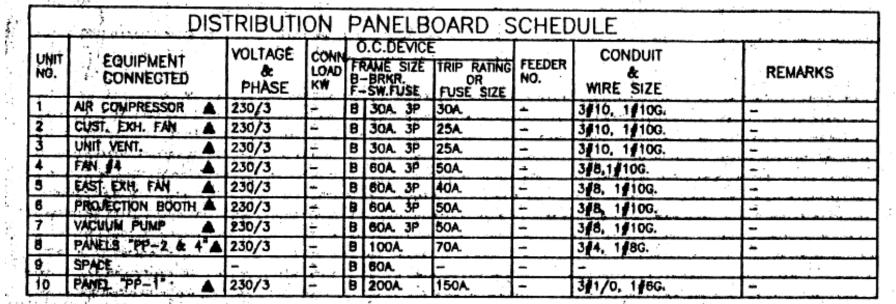
E-05
PAGE: 9 of 11

EXISTING ELECTRICAL PLANS

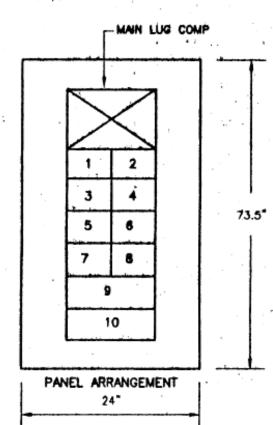
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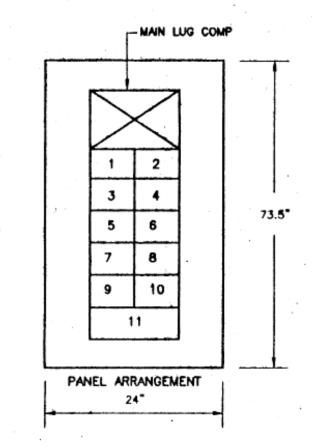


DISTRIBUTION	PANELBOA	RD NAMEPLATE		
FIRST SECOND	LINE	THIRD LINE		
DP-1 230V 30 3W.		BLDG. EQUIP. POWER		
PANEL TYPE	DISTRIBUTION	1		
PANEL LOCATION	BASEMENT			
PANEL MOUNTING	SURFACE			
SYSTEM & USE	BUILDING POWER			
VOLTAGE/PHASE/WIRE	230V. 3# 3W.			
MAIN BUS PLATING	250A	Walter to the second of the second		
MAIN DEVICE	NONE			
MIN. S.C.C. RATING SYM.	22,000 SYM	. RMS.		
TOTAL DONNECTED LOAD	30KW			
FEEDER SIZE	343/0, 142	G.		
UNIT FED FROM	UTILITY, MAIN			



	DIS	TRIBUTI	ON	P	ANELB	OARD S	CHED	ULE	
unit No.	EQUIPMENT CONNECTED	VOLTAGE & PHASE	CONN LOAD KW	FF B-	-BRKR.	TRIP RATING OR FUSE SIZE	FEEDER NO.	CONDUIT & WIRE SIZE	REMARKS
1	SUMP PUMP	230/3	1	В	30A. 3P	25A.	÷	3#10, 1#10G.	-
2	BSMT. SUPPLY FAN A	230/3		В	30A. 3P	25A.	-	3#10, 1#10G.	_
3	BASEMENT EXH. FAN A	230/3	-	В	60A. 3P	40A.	-	3#8, 1#10G.	
4	BOILERS	230/3	- :	В	60A 3P	50A.	-	3#8, 1#10G.	-
5,	CONDENSER	230/3		В	60A. 3P	50A.	-	3#8, 1#10G.	-
6	SPARE	-	-	В	60A. 3P		-	-	-
7	SPARE	-	-	B	100A 3P	-	*	_	
8	SPARE	-	÷	В	100A. 3P			-	-
9	SPARE	~	-	В	60A 3P	-	-		
10	SPARE	-	-	В	100A. JP	-		-	
11	SPACE	_	-	В	-	-	-	_	

ÞI	STRIBUTION	PANELBO	ARD NAMEPLATE		
FIRST	SECOND	LINE	THIRD LINE		
DP-2	230V 3# 3W.		BLDG. EQUIP. POWER		
PANEL TYP	E	DIŞTRIBUTI	ON		
PANEL LOC	ATION	BASEMENT			
PANEL MOL	INTING	SURFACE			
SYSTEM &	LISE	BUILDING POWER			
VOLTAGE/PI	HASE/MRE	230v. 3ø 3W.			
MAN BUS	RATING	250A.			
MAIN DEVIC	Ε	NONE			
MIN. S.G.C.	MATING SYM.	22,000A S	SYM, RMS.		
TOTAL CON	NECTED LOAD	15KW.			
FEEDER SIZ		343/0, 1	2G.		
UNIT FED F	ROM	עדונודע אג	NN .		



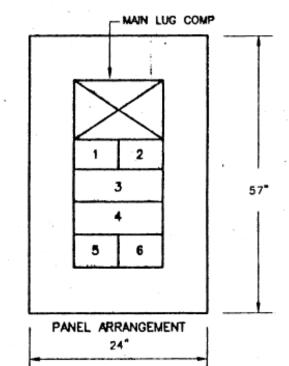
)IS	TRIBUTI	ON	P	ANELB	OARD S	CHEC	ULE	
UNIT NO.	EQUIPMENT CONNECTED		VOLTAGE & PHASE	CÖNN LOAD KW	FF	-BRKR.	TRIP RATING OR FUSE SIZE	FEEDER NO.	CONDUIT & WIRE SIZE	REMARKS
1	PANEL "N"	A	120/240	-			20A.	-	3#12, 1#12G.	-
2	SPACE		-	-	В	30A. 2P	-	-	-	-
3	PANEL "EMB"	A	120/240	-	В	100A. 2P	70A.		344, 1#8G.	-
4	PANEL "P"	4	120/240	-	В	100A 2P	90A.		3/3, 1/80.	_
5	PANEL "C"	A	120/240		В	400A. 2P	225A.		344/0, 144G.	-
6	PANEL "EH"	•	120/240	-	В	400A. 2P	350A.	-	3#350KCMIL, 1#3G.	1-

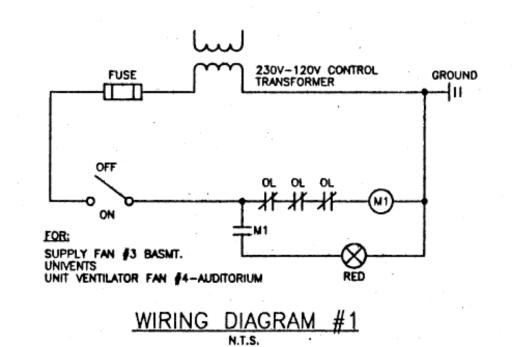
DI	STRIBUTION	PANELBO	ARD NAMEP	LATE
FIRST LINE	SECOND	LINE	THIRD	LINE
DLP-1	120/240V. 1	€ 3W.	LIGHTING &	RECEPTACLES
PANEL TYPE	Ē	DISTRIBUTI	ON	
PANEL LOC	ATION	BASEMENT		
PANEL MOU	INTING	SURFACE		
SYSTEM &	USE	LIGHTING (RECEPTACL	ĘS
VOLTAGE/PI	HASE/WIRE	120/240V	1# JW. FULL	SIZE NEUTR
MAIN BUS	RATING	400A		
MAIN DEVIC	É	NONE		
MIN. S.C.C.	RATING SYM.	22,000A	MIN. SYM. RM	S.
TOTAL CON	NECTED LOAD	55KW		
FEEDER SIZ	E	34500KCM	IL & 1#1/0G	
UNIT FED F	ROM	UTILITY MA		

MAIN LUG COMF	
1 2 3 4 5 6	57*
PANEL ARRANGEMENT	

	DIS	TRIBUTI	ΟN	PANELB	DARD S	CHEC	ULE	
UNIT NO.	EQUIPMENT CONNECTED	VOLTAGE & PHASE	CONN LOAD KW	B-BRKR.		FEEDER NO.	CONDUIT & WIRE SIZE	REMARKS
1	PANEL "EMB1"	120/240	-	B 100A. 2P		-	344, 148G.	
2	PANEL "L"	120/240	1-	B 100A. 2P	90A.	-	343, 148G.	-
3	PANEL "A" & "F"	120/240	-	B 400A, 2P	250A	-	3/250KCMIL, 1/4G.	I
4	PANELS "B,D & G" A	120/240	-	B 400A 2P.	400A.		3#500KCMIL, 1#3G.	-
5	PANEL "EM"	120/240	1-	B 60A 2P	50A.	-	3#8, 1#10G.	-
6	SPACE	120/240	-	B 60A. 2P	_	_	-	1-

DI	STRIBUTION	PANELBO	ARD NAMEPLATE			
FIRST LINE	SECOND LINE		THIRD LINE			
DLP-2	120/240V. 1	ø 3W.	LIGHTING & RECEPTACLES			
PANEL TYPE	E	DISTRIBUTION				
PANEL LOCATION		BASEMENT				
PANEL MOUNTING		SURFACE				
SYSTEM & USE		LIGHTING AND RECEPTACLES				
VOLTAGE/PHASE/WIRE		120/240V 10 3W. FULL SIZE NEUTR.				
MAIN BUS RATING		400A.				
MAIN DEVICE		NONE				
MIN. S.C.C. RATING SYM.		22,000A MIN. SYM. RMS.				
TOTAL CON	NECTED LOAD	55KW				
FEEDER SIZ	Ę	3#500KCMIL, 1#1/0G.				
UNIT FED F	ROM	UTILITY MAIN				





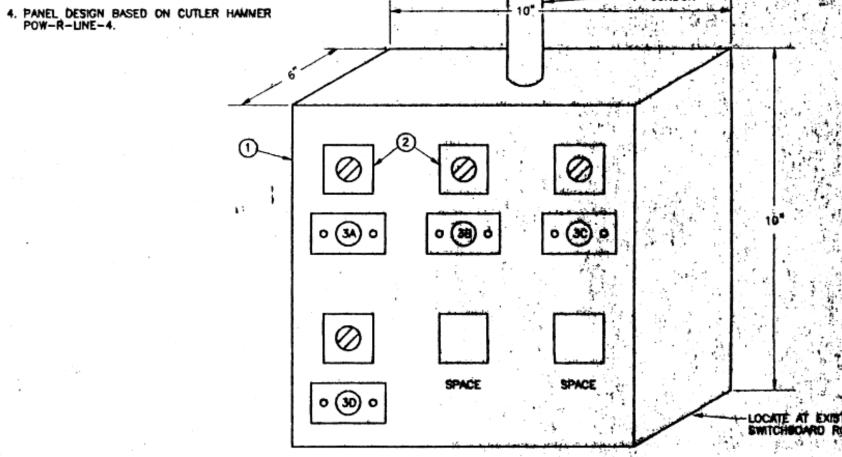
1	DIS	TRIBUTI	ON	PANELB	OARD S	CHED	
UNII NO.	EQUIPMENT CONNECTED	VOLTAGE & PHASE	CONN LOAD KW	O.C.DEVICE FRAME SIZE B-BRKR. F-SW.FUSE	and the fact of the second	FEEDER NO.	CONDUIT REMARKS
1	3RD FL'R DATA PANEL A	_	9	B 100A-2P	100A		342, 1480.
2	SPACE	-	-	B 200A	۵.	=	_
3	STAGE PANEL A	120/240	10	B 400A-2P	225A		344/0, 1440.
4	SPACE	-		B 200A	_	**	
5	SPACE	-	-	B 200A	-		

DI	STRIBUTION	PANELBO	ARD NAMEPLATE]	•			NA
FIRST LINE	SECOND	LINE	THIRD LINE				7 1	
DLP-3	120/240V.,1¢	, 3W.	LIGHTING & RECEPTACLES]		-		
PANEL TYPE		DISTRIBUT			, 12°	ì. ;	٠.	
PANEL LOCATION		BASEMENT					. je. 1	
PANEL MOUNTING		SURFACE				Ç.,	. ***2	110
SYSTEM & USE		LIGHTING & RECEPTACLES				1.1.	1	******
VOLTAGE/PHASE/WIRE		120/240V, 10, 3W. FULL SIZE NEUTR.				10		3
MAN BUS	RATING	400A]		30	800	
MAIN DEVICE		NONE			`. <i>'</i>	1,2	. 1 (1)	
MIN., S.C.C.	RATING SYM.	22,000 M	IN. SYM. RMS.			11.	. :	5
TOTAL CON	NECTED LOAD	19 KW]		1.1		سنجرنسا
FEEDER SIZ	E	3#500KCM	IIL, 1#1/0G.]			18 t	
UNIT FED F	ROM	עדונודע אע			:		ļ	
NOTE:				- ; ;			PA	NEL ARRAN

	ON
	NOIE:

WIRE SIZE NOTED IN SCHEDULES ARE ASSUMED SIZES OF EXISTING CONDITIONS AND EXISTING CIRCUIT BREAKER TRIP SETTINGS.

(A)EXISTING CIRCUIT FOR MOTOR LOADS OR PANELBOARDS TO BE INTERCEPTED AND WIRING TRANSFERED TO NEW DISTRIBUTION PANEL THROUGH NEW WIREWAY.



- - (3A) FAN #12-EXHAUST FAN, GIRLS SHOWER ROOM
 - (3B) FAN #1-UNIT VENT. FAN GYN
 - 30 FAN #6-EXHAUST FAN, BOYS SHOWER ROOM
- 3D FAN 47-EXHAUST FAN, WEST REST ROOMS

DETAIL FOR FAN CONTROL
STATION ENCLOSURE

2305 E. AURORA RD. TWINSBURG, OH 44087

PHONE: 216-904-2855 www.AGMenergyservices.com

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PROJECT TITLE:

GARRETT MORGAN ACADEMY HVAC UPGRADES 2018

4016 Woodbine Ave. Cleveland, OH 44113



PROJECT		80511
DATE DRA	AVVIV.	5/10/2017
BY:		LSH
<u>#</u>	REVISION	<u>DATE</u>
1 FOR BI	ID	2/2/18
ADDEN	IDUM 1	3/13/18
3		
4		
5		
SCALE:		AS NOTED

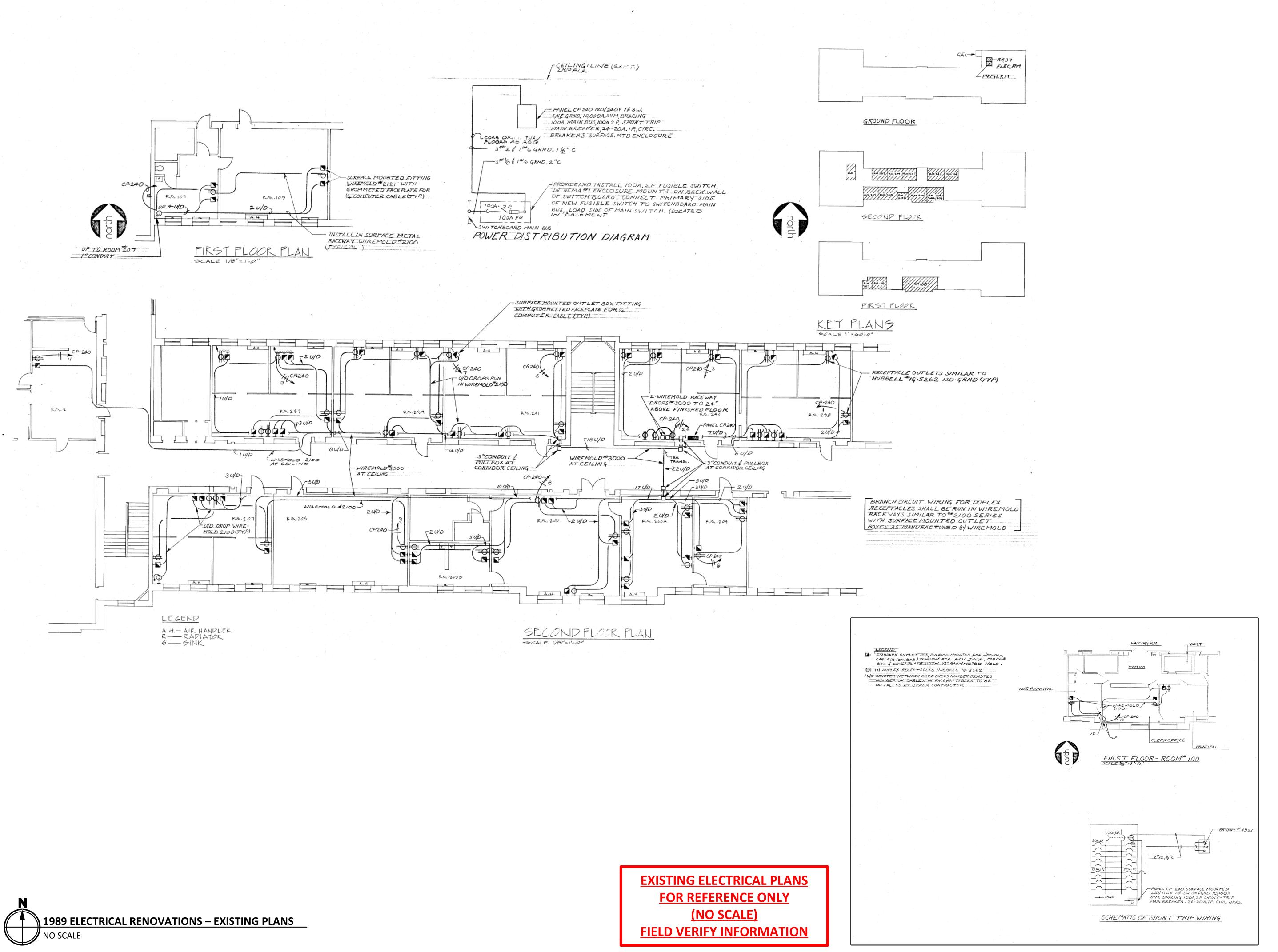
DRAWING TITLE:

EXISTING PANELBOARD SCHEDULES

DRAWING NUMBER:

10 of 11

EXISTING ELECTRICAL PLANS FOR REFERENCE ONLY (NO SCALE) **FIELD VERIFY INFORMATION**





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4016 Woodbine Ave. Cleveland, OH 44113



80511 PROJECT NUMBER: DATE DRAWN: 5/10/2017 LSH <u>DATE</u> **REVISION** 1 FOR BID 2/2/18 ADDENDUM 1 3/13/18 3 ---------5 ------**AS NOTED** SCALE:

DRAWING TITLE:

EXISTING 1ST & 2ND FL POWER RECEPTICLE PLAN

DRAWING NUMBER:

E-07

PAGE: 11 of 11