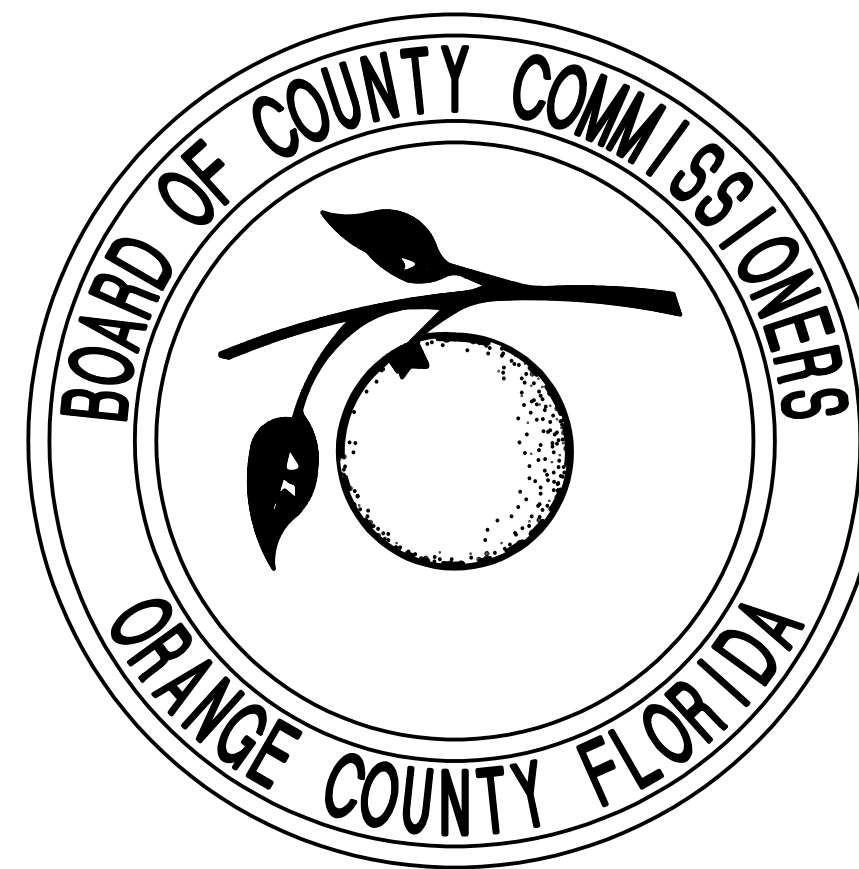


CAPEHART PARK HVAC REPLACEMENT

715 CAPEHART DRIVE
ORLANDO, FLORIDA

MAYOR
TERESA JACOBS



COMMISSIONER
BETSY VANDERLEY
DISTRICT 1

COMMISSIONER
ROD A. LOVE
DISTRICT 2

COMMISSIONER
PETE CLARKE
DISTRICT 3

COMMISSIONER
JENNIFER THOMPSON
DISTRICT 4

COMMISSIONER
EMILY BONILLA
DISTRICT 5

COMMISSIONER
VICTORIA P. SIPLIN
DISTRICT 6

SCOPE OF WORK:

PROVIDE NEW 100% OUTDOOR AIR UNIT SPLIT SYSTEM. PROVIDE A NEW VARIABLE REFRIGERANT FLOW (VRF) SYSTEM INCLUDING (5) VERTICAL INDOOR AIR CONDITIONING UNITS, (1) DUCTLESS MINI-SPLIT INDOOR AIR CONDITIONING UNIT AND (2) HEAT PUMP CONDENSING UNITS PIPED AND CONTROLLED AS A VRF SYSTEM. PROVIDE ALL NEW BMS CONTROLS AND MODIFY EXISTING FRONT END CONTROLS TO MATCH NEW SYSTEM REQUIREMENTS. PROVIDE NEW CONDENSATE DRAIN SYSTEM. PROVIDE NEW ELECTRICAL AS REQUIRED TO SUPPORT NEW HVAC SYSTEMS.



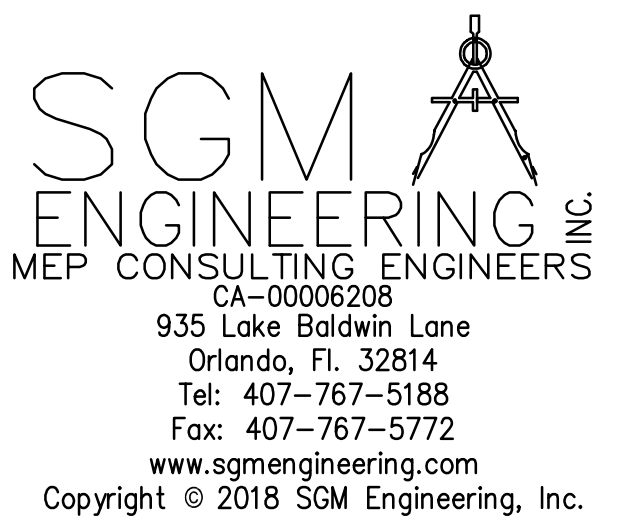
LOCATION MAP

PROJECT LOCATION:
715 CAPEHART DRIVE,
ORLANDO, FLORIDA 32822

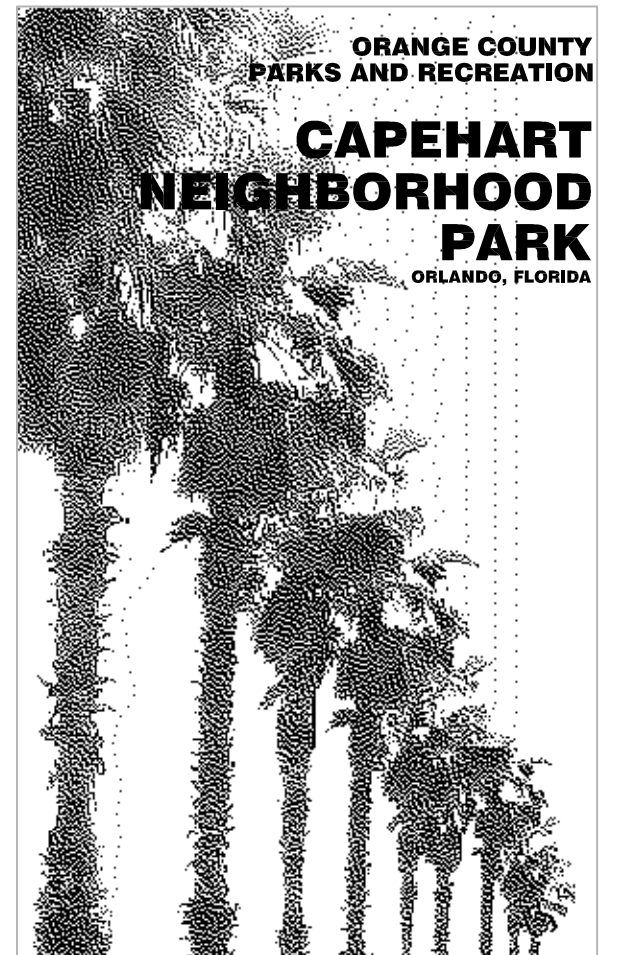
DRAWING INDEX

<u>SHEET No.</u>	<u>SHEET TITLE</u>
C0.01	COVER SHEET
M0.01	MECHANICAL NOTES, LEGENDS, SCHEDULES
MD1.01	MECHANICAL DEMOLITION FLOOR PLAN
M2.01	MECHANICAL FLOOR PLAN
M6.01	MECHANICAL DETAILS
M7.01	MECHANICAL CONTROLS
E0.01	ELECTRICAL SYMBOLS AND LEGENDS
ED1.01	ELECTRICAL DEMOLITION FLOOR PLAN
E1.01	ELECTRICAL FLOOR PLAN
E5.01	ELECTRICAL ONE LINE, PANEL SCHEDULES & DETAILS

ISSUE: 100% CD
DATE: SEPTEMBER 18 2018



Client Name:



Issue:

[illegible]

Project Name:

CAPEHART PARK HVAC REPLACEMENT

Project Number: 2018-131	Drawing File Name: 1200-C001-2018131
Scale: AS NOTED	Seal:
Design By:	
Drawn By:	
Checked By:	
Engineer of Record:	
License Number:	

Sheet Name:

COVER SHEET

Sheet Number:

C0.01

MECHANICAL GENERAL NOTES

1. IF THE INTENT OF ARCHITECT/ ENGINEER WITH REGARD TO ANY DETAIL IS NOT CLEAR, OR IS CAPABLE OF MORE THAN ONE INTERPRETATION, SUCH MATTERS WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IN WRITING BEFORE THE SUBMISSION OF BIDS, AND THE ENGINEER SHALL MAKE CORRECTION OR EXPLANATION IN WRITING. OTHERWISE, NO EXTRA CHARGE WILL BE ALLOWED FOR THE WORK OR MATERIAL IN QUESTION.
- 2.
3. THE PLANS AND SPECIFICATIONS ARE INTENDED AS A GENERAL DESCRIPTION OF THE WORK TO BE PERFORMED. ALL ITEMS NOT SPECIFICALLY MENTIONED OR SHOWN, BUT NECESSARY FOR THE COMPLETION OF THE INSTALLATION, SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. THIS CONTRACTOR SHALL THOROUGHLY ACQUAINT THEMSELVES WITH THE MECHANICAL, AND ELECTRICAL PLANS BEFORE SUBMITTING THEIR FINAL BID.
4. ALL WORK SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE 2017, FLORIDA MECHANICAL & ELECTRICAL CODES, 2017 AND LATEST N.E.C & NFPA CODES.
5. THE SIZE AND LOCATION OF EQUIPMENT INSTALLED UNDER DIVISION 23 MECHANICAL SHALL BE COORDINATED WITH OTHER TRADES. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
6. DUCTWORK AND PIPING TO MECHANICAL EQUIPMENT SHALL BE INSTALLED IN A MANNER THAT DOES NOT OBSTRUCT EQUIPMENT SERVICE CLEARANCES.
7. INTERRUPTION OF EXISTING SERVICES SHALL BE MINIMAL AND SHALL BE FULLY COORDINATED WITH THE OWNER AND ALL TRADES IN ADVANCE TO SCHEDULE ALL INTERRUPTIONS DURING NON-CRITICAL TIMES. OWNER SHALL BE PROVIDED WITH THREE BUSINESS DAYS NOTICE PRIOR TO INTERCEPTION.
8. DISCONNECT SWITCHES REQUIRED FOR THE MECHANICAL EQUIPMENT SHALL BE PROVIDED BY DIVISION 26 ELECTRICAL EXCEPT WHEN INDICATED ON SCHEDULE.
9. PROVIDE 4" HIGH CONCRETE PADS UNDER ALL FLOOR MOUNTED EQUIPMENT, WITH CHAMFERED EDGES AND 6" EXTENSIONS BEYOND EQUIPMENT UNLESS NOTED OTHERWISE.
10. ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION. SUPPORT ALL OBJECTS FROM STRUCTURE WITHOUT PENETRATING THE CEILING.
11. ALL HVAC EQUIPMENT LOCATION & WEIGHT SHALL BE COORDINATED AND APPROVED BY THE STRUCTURAL ENGINEER, CONTRACTOR AND OWNER PRIOR TO PURCHASE AND INSTALLATION.
12. CONDENSATE DRAINS FROM ALL MECHANICAL EQUIPMENT SHALL BE COORDINATED FOR PROPER DRAINAGE TO SUIT EQUIPMENT FURNISHED. ALL CONDENSATE DRAIN LINES SHALL BE INSULATED AND INSTALLED WITH A "P" TRAP AT THE UNIT.
13. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH LATEST SMACNA, NFPA 90A AND 90B REQUIREMENTS. OFFSETS IN DUCTS AND PIPING AND TRANSITIONS AROUND OBSTRUCTIONS. PROVIDE ALL TRANSITIONS, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS.
14. PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTS CONNECTING TO EACH FAN, AIR HANDLING UNIT AND FAN COIL UNIT. COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH EQUIPMENT OF ALL TRADES AND VERIFY CEILING FINISHES.
15. ALL OPERABLE THERMOSTAT PARTS SHALL BE MOUNTED 48" ABOVE FINISHED FLOOR. ROOM THERMOSTATS DO NOT REQUIRE COVERS. VOLTAGE SHALL BE 24 VOLT UNLESS OTHERWISE INDICATED.
16. ALL CONTROL WIRING AND HARDWARE TO COMPLETE THE HVAC CONTROL SYSTEM SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23 MECHANICAL OF THESE CONTRACT DOCUMENTS.
17. INSTALLATION OF DUCT SMOKE DETECTORS SHALL BE BY DIVISION 23 AND FURNISHED BY DIVISION 26.
18. THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER FOR REVIEW, A TEST AND BALANCE REPORT OF ALL SYSTEMS. THE TESTING AND BALANCING SHALL BE PERFORMED BY A CERTIFIED TEST AND BALANCE COMPANY. TEST AND BALANCE REPORT SHALL BE COMPLETED BY SUBSTANTIAL COMPLETION DATE.
19. PROVIDE ALL MANUFACTURER INSTALLATION & MAINTENANCE MANUALS FOR EQUIPMENT INSTALLED FOR ENGINEER REVIEW BEFORE RELEASE TO THE OWNER.

MECHANICAL ABBREVIATIONS			
AAV	AUTOMATIC AIR VENT	HOA	HAND-OFF-AUTOMATIC
AC	AIR CONDITIONING	HP	HORSEPOWER, HEAT PUMP
ACU	AIR CONDITIONING UNIT	HVAC	HEATING VENTILATING AND AIR CONDITIONING
AD	ACCESS DOOR, AIR DRYER		
AFB	ABOVE FINISHED FLOOR	HZ	HERTZ (CYCLES PER SECOND)
AFMS	AIR FLOW MEASURING STATION	ID	INSIDE DIAMETER
ALU	AIR HANDLING UNIT	IN	INCH
ALUM	ALUMINUM	KEF	KITCHEN EXHAUST FAN
AP	ACCESS PANEL	KW	KILOWATT
APD	AIR PRESSURE DROP	LDB	LEAVING DRY BULB
ATC	AUTOMATIC TEMPERATURE CONTROL	LWB	LEAVING WET BULB
AV	AIR VENT	LOR	LIMIT OF REMOVAL
BDD	BACK DRAFT DAMPER	MAX	MAXIMUM
BOT	BOTTOM	MBH	THOUSAND BTU PER HOUR
CBF	BACKFLOW PREVENTER	MD	MANUAL DAMPER
BTU	BRITISH THERMAL UNIT	MIN	MINIMUM
C	CELSIUS, DEGREE CELSIUS	(N)	NEW
CFM	CUBIC FEET PER MINUTE	N	NORTH
CHWS&R	CHILLED WATER SUPPLY & RETURN	NA	NOT APPLICABLE
CLG	CEILING	NO #	NUMBER, NORMALLY OPEN
CF	CEILING FAN	NTS	NOT TO SCALE
CO	CLEAN OUT	OA	OUTSIDE AIR
COND	CONDENSATE	OBD	OPPOSED BLADE DAMPER
(D)	DEMOLISH	OD	OUTSIDE DIAMETER
DB	DRY BULB, DOWN BLOW	OPER	OPERATING
DCW	DOMESTIC COLD WATER	PSI	POUNDS PER SQUARE INCH
DG	DEGREE	PSIG	POUNDS PER SQUARE INCH GAUGE
DELIV	DELIVERY	REG	REGISTER
DHW	DOMESTIC HOT WATER	RA	RETURN AIR
DISC	DISCONNECT	RF	RETURN FAN
DN	DOWN	RG	RETURN GRILLE
(E)	EXISTING	RH	RELATIVE HUMIDITY
EA	EXHAUST AIR, EACH	RHC	REHEAT COIL
EAT	ENTERING AIR TEMPERATURE	RM	ROOM
EDB	ENTERING DRY BULB	SA	SUPPLY AIR
EF	EXHAUST FAN	SEF	SMOKE EXHAUST FAN
EFF	EFFICIENCY	SF	SUPPLY FAN
ELEV	ELEVATION	SFD	SMOKE/REHEAT DAMPER
EMS	ENERGY MANAGEMENT SYSTEM	ST	THERMOSTAT
ENT	ENTERING	TEC	TERMINAL EQUIPMENT CONTROLLER
EWB	ENTERING WET BULB	TEMP	TEMPERATURE
F	FAHRENHEIT	T/D	TRANSFER DUCT
FD	FIRE DAMPER, FLOOR DRAIN	TYP	TYPICAL
FPM	FEET PER MINUTE	V	VENT, VOLT
FPS	FEET PER SECOND	VD	VOLUME DAMPER
F/SD	FIRE/SMOKE DAMPER	VERT	VERTICAL
FT	FEET	WB	WET BULB
GPH	GALLONS PER HOUR	WPD	WATER PRESSURE DROP
GPM	GALLONS PER MINUTE		

MECHANICAL SYMBOLS LEGEND			
	POINT OF CONNECTION		NEW WORK
	POINT OF DISCONNECTION		EXISTING DUCT TO REMAIN
	THERMOSTAT		EXISTING DUCT TO BE DEMOLISHED
	CARBON DIOXIDE SENSOR		SUPPLY AIR DUCT
	SMOKE DETECTOR		RETURN AIR DUCT
	EXISTING FIRE DAMPER		EXHAUST AIR DUCT
	FIRE DAMPER		ELBOW TURNED UP
	FIRE SMOKE DAMPER		ELBOW TURNED DOWN
	MANUAL VOLUME DAMPER		TAP WITH 45° ENTRY
	MOTOR OPERATED DAMPER		
	BUILDING MANAGEMENT SYSTEM		


SCOPE OF WORK		DRAWING INDEX	
<p>DEMOLISH THE EXISTING (4)AHU'S AND (5) SPLIT SYSTEM CONDENSING UNITS AND PREPARE FOR NEW. PROVIDE A NEW VARIABLE REFRIGERANT FLOW (VRF) HVAC SYSTEM INCLUDING (5) NEW AHU'S, (1) NEW 100% OA AHU, (1)DUCTLESS AC UNIT & (1)VRF CONDENSING UNIT. SYSTEM SHALL INCLUDE VRF BRANCH BOXES, MOTOR OPERATED OA DAMPERS AND NEW CONTROLS WITH REVISED FRONT END GRAPHICS. ALL ELECTRICAL REQUIREMENTS FOR THE NEW HVAC SYSTEM SHALL BE INCLUDED.</p> <p>WORK SHALL BE PERFORMED DURING OFF HOURS. OFF HOURS WILL BE CONSIDERED AS 6PM - 7AM, MONDAY THROUGH SUNDAY. A REQUESTED FULL SUNDAY AND MONDAY MAY BE AVAILABLE FOR THE FULL 24 HOURS PER DAY WHEN SCHEDULED IN ADVANCE. ANY ADDITIONAL TIME OR DAYS ADDED ONTO THE ABOVE SCHEDULE, WHEN REQUESTED, WOULD DEPEND ON BUILDING USAGE AVAILABILITY AT OWNER DISCRETION. BUILDING OUTAGES (POWER, COOLING, ETC) SHALL BE SCHEDULED A MINIMUM OF 3 WEEKS IN ADVANCE. SYSTEMS SHALL BE INSTALLED IN A MANNER THAT ALLOWS THE BUILDING TO BE PARTLY OCCUPIED AND COOLED WITH INSTALLATION BEING PERFORMED WITHIN ONE MECHANICAL ROOM AT A TIME ALLOWING FOR PART OF THE BUILDING TO BE OCCUPIED.</p> <p>THE EXISTING FRONT END CONTROL SYSTEM USES RELIABLE CONTROLS AND ANY NEW CONTROL SYSTEMS INSTALLED WILL REQUIRE COMPLETE COMMUNICATION AND COMPATIBILITY WITH THE EXISTING SYSTEMS WITH NEW GRAPHICS UPDATED ON THE EXISTING FRONT END SYSTEMS.</p> <p>THE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN ALL OF THE EXISTING DUCTWORK FOR REUSE.</p> <p>CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REBATES FROM THE POWER UTILITY COMPANY FOR ALL THE QUALIFYING NEW MECHANICAL SYSTEMS INCLUDING OBTAINING AND FILLING OUT THE REBATE FORMS AND FOLLOWING UP WITH ANY ADDITIONAL INFORMATION REQUESTED BY THE UTILITY COMPANY.</p> <p>CONTRACTOR SHALL PROVIDE TEMPORARY COOLING AS REQUIRED TO KEEP THE BUILDING OCCUPIED. AREAS UNDER CONSTRUCTION WHERE THE AIR CONDITIONING SYSTEMS WILL BE DOWN DUE TO CONSTRUCTION SHALL BE PROVIDED WITH TEMPORARY COOLING INCLUDING: SPOT COOLERS WITH FLEX DUCT EXHAUSTING HEAT TO OUTDOOR ENVIRONMENT OR TEMPORARY AIR HANDLING EQUIPMENT LOCATED OUTDOORS WITH SUPPLY TO WITHIN THE SPACE. ALL REQUIREMENTS FOR PROVIDING TEMPORARY COOLING TO KEEP SPACES OCCUPIED SHALL BE INCLUDED IN THE SCOPE OF WORK.</p>		<p>DWG # DWG. TITLE</p> <p>M0.01 MECHANICAL LEGENDS, NOTES & SCHEDULES</p> <p>MD1.01 MECHANICAL DEMO, FLOOR PLAN</p> <p>M1.01 MECHANICAL FLOOR PLAN</p> <p>M7.01 MECHANICAL DETAILS</p> <p>M7.02 MECHANICAL CONTROLS</p>	

VARIABLE REFRIGERANT VOLUME - INDOOR UNIT SCHEDULE															
TAG	BASIS OF DESIGN (MITSUBISHI)	NOMINAL TONNAGE	TYPE	CONNECTED TO:		AIRFLOW		COOLING CAPACITY				HEATING		ELECTRICAL	
				CONDENSING UNIT	ZONE CHANGE/OVER DEVICE	AIR FLOW RATE CFM	OUTSIDE AIR CFM	TOTAL MBH	SENSIBLE MBH	ENTERING AIR		TOTAL MBH	POWER SUPPLY VOLTAGE/ PHASE	MIN CIRCUIT AMPS MCA	MAX OVERCURRENT MOP
										'F DB	'F WB				
AC-1	PVFY-P48NAMU-E	4	Multi Position Air Handler	CU-1	Yes	1,375	75 / 350 (2)	35	24	76	64	54	208/1	5.63	15
AC-2	PVFY-P48NAMU-E	4	Multi Position Air Handler	CU-1	Yes	1,400	75 / 350 (2)	35	24	76	64	54	208/1	5.63	15
AC-3	PVFY-P54NAMU-E	4.5	Multi Position Air Handler	CU-1	Yes	1,485	100	44	33	76.1	63.8	60	208/1	5.63	15
AC-4A	PVFY-P48NAMU-E	4	Multi Position Air Handler	CU-1	Yes	1,400	175	32	27	77.3	64.2	54	208/1	5.63	15
AC-4B	PVFY-P48NAMU-E	4	Multi Position Air Handler	CU-1	Yes	1,400	175	32	27	77.3	64.2	54	208/1	5.63	15
AC-5	MSY-GL09NA-U1	0.75	Wall Mounted Unit	CU-1	Yes	260	0	9	6	75	63	8	208/1	0.3	15
NOTES:															
1) INCLUDE FACTORY DISCONNECT															
2) MIN OA = 75 CFM, OUTSIDE AIR FROM OAU-1 = 350 CFM															

SPLIT SYSTEM CONDENSING UNIT SCHEDULE																
UNIT NO.	MANUFACTURER & MODEL NO.	SERVICE	LOCATION	COOLING CAPACITY (TONS)	EER	REFRIG. TYPE	COMPRESSOR			CONDENSER		COND. FAN(S)		POWER		OPER. WGT. (LBS)
							TYPE	QTY.	RLA	NO. CIRCUITS	AMB. AIR TEMP. (°F)	QTY.	HP	MCA	MCCP	
CU-2	TRANE 4TTA306C03	OA-U-1	CU YARD	5.0	14	R410A	SCROLL	1	15.6	1	95	1	1/5	21.0	35.0	208/3/60
NOTES																
1) PROVIDE ANTI-SHORT CYCLE TIMER, EVAPORATOR DEFROST CONTROL, RUBBER ISOLATORS)																

VARIABLE REFRIGERANT VOLUME - ZONE HEAT RECOVERY DEVICE SCHEDULE						
TAG: ROOM	BASIS OF DESIGN (MITSUBISHI)	CONDENSING UNIT SERVED	VOLTAGE- PHASE	MCA	MOP	MAX CAPACITY (per Port)
BS 1	CMB-P105NU-G1	CU-1	208/1	0.4	15	48 MBH
BS 2	CMB-P105NU-G1	CU-1	208/1	0.4	15	54 MBH
Schedule Notes:	Individual control and unevaporator 4, 6, 8, 10 and 12 port options. Unlimited number of unevaporator ports per box or system. No drain piping needed. Standard Limited Warranty: 10-year warranty on all parts.					

ent Name:



ORANGE COUNTY
PARKS AND RECREATION

CAPEHART
NEIGHBORHOOD
PARK

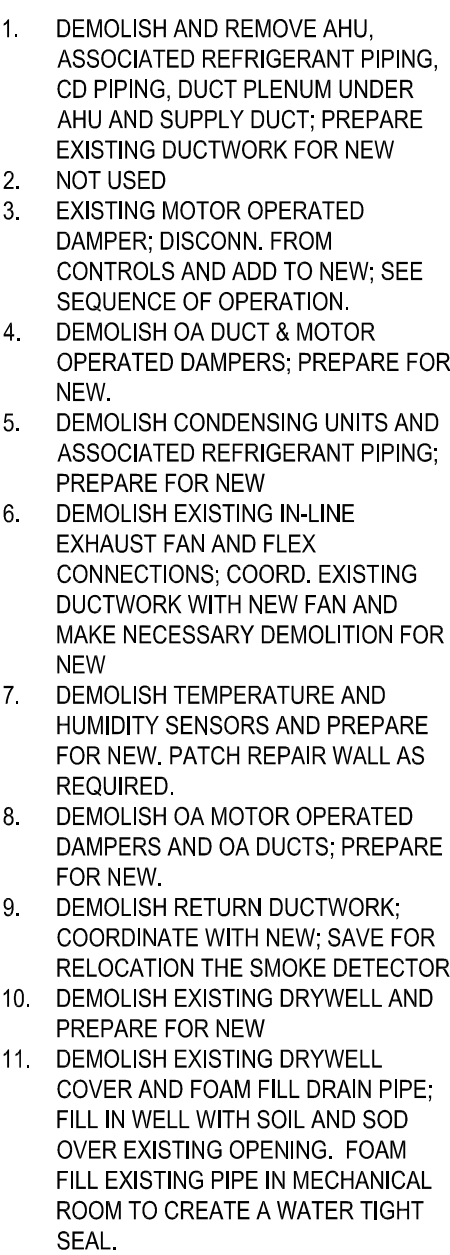
ORLANDO, FLORIDA

Project Name:

CAPEHART PARK
HVAC REPLACEMENT

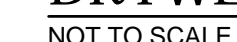
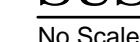
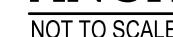
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LEGENDS AND SCHEDULES**

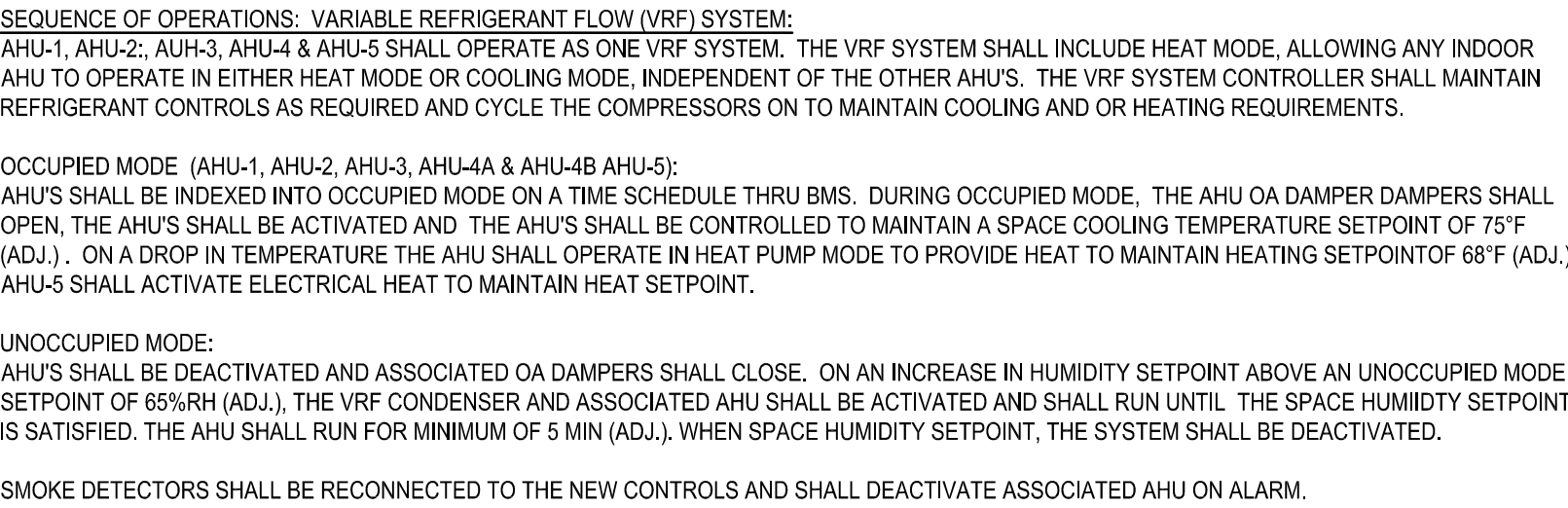
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AVAILABLE IN PALLET QUANTITY OF 25

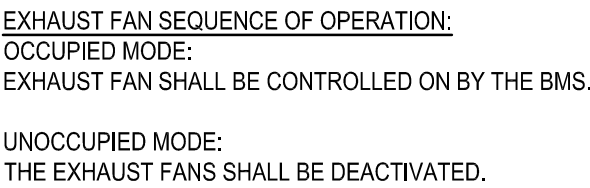




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NOTE:
THE EXISTING RELIABLE CONTROL GRAPHICS AND CONTROL SEQUENCES SHALL BE MODIFIED / REVISED / ADDED TO, AS REQUIRED, TO DEPICT AND CONTROL NEW HVAC SYSTEMS PER SEQUENCES OF OPERATION. NEW GRAPHICS DEPICTING THE VRF SYSTEM SHALL INCLUDE INPUTS, OUTPUTS, FAULTS, SCHEDULING AND OTHER CONTROLS THAT ALLOW FOR FULL COMMUNICATION OF THE VRF SYSTEM BEYOND INTERNAL VRF CONTROLLER REQUIRED FOR VRF SYSTEM OPERATION.



SEQUENCE OF OPERATIONS - OUTSIDE AIR UNIT

OCCUPIED MODE:

CALL-ICU-1 SHALL INDEXED TO OCCUPIED MODE SEQUENCE . DURING OCCUPIED MODE WHEN CO2 LEVELS (EITHER SENSOR) EXCEEDS SET POINT OF 1100 PPM (AUI), THE OA DAMPER SHALL OPEN, THE MIN. OA DAMPER FOR AHU-1 & 2 SHALL CLOSE, THE PRESSURE RELIEF DAMPER SHALL OPEN, AND OAU-1/ICU-2 SHALL BE ACTIVATED AND CONTROLLED TO STALL COMPRESSORS TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 55°F AS SENSED BY TS-2, ON A DROP IN TEMPERATURE BELOW 52°F, THE ELECTRIC HEATER SHALL BE STAGED ON TO MAINTAIN 52°F DISCHARGE AIR TEMPERATURE AS SENSED BY TS-2. WHEN CO2 SENSOR IS DEACTIVATED, THE OAU-1/ICU-2 SHALL BE DEACTIVATED, THE OA DAMPER SHALL CLOSE, THE PRESSURE RELIEF DAMPER SHALL CLOSE AND THE MIN OA DAMPER FOR AHU-1 & AHU-2 SHALL RESUME NORMAL POSITION (OPEN), WHEN OAU-1 IS ACTIVATED THE UNIT SHALL RUN FOR A MINIMUM OF 5 MINUTES (AUI-1).

UNOCCUPIED MODE:
OAU-1/CU-2 SHALL BE OFF AND THE OUTSIDE AIR DAMPER SHALL BE CLOSED..

OUTSIDE AIR UNIT CONTROL DIAGRAM



Issue:

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Project Name:

CAPEHART PARK HVAC REPLACEMENT

Project Number: 2018-131	Drawing File Name:
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MECHANICAL CONTROLS

Sheet Number:

M7.01

AE	AMPERES	INC	INCANDESCENT
AE	AUDIO ENHANCEMENT	JB	JUNCTION BOX
AF	ABOVE FINISHED CEILING	kV	KILO-VOLTS
AFC	ABOVE FINISHED FLOOR	kVA	KILO-VOLTS-AMPERES
AFC	ABOVE FINISHED GRADE	kVAR	KILO-VOLTS-AMPERES REACTIVE
AFG	AMPERES INTERRUPTING	kW	KILO-WATTS
AL	ALUMINUM	KWH	KILO-WATT-HOURS
AW	AMERICAN WIRE GAUGE	LTG	LIGHTING
BFC	BELOW FINISHED CEILING	m	METER
BFG	BELOW FINISHED GRADE	mm	MILLIMETER
CB	CONDUIT	MAX	MAXIMUM
CAB	CABINET	MCC	MAIN CIRCUIT BREAKER
CBC	CONTRACTOR FURNISHED	MCB	MOTOR CONTROL CENTER
	CONTRACTOR SUPPLIED	MCP	MOTOR CIRCUIT PROTECTOR
CKT	CIRCUIT	MFR	MANUFACTURER
CL	CEILING	MH	METALLIC HALIDE
CLG	CENTERLINE	MIN	MINIMUM
CT's	CURRENT TRANSFORMERS	MISC	MISCELLANEOUS
CU	COPPER	MTR	MOTOR
DISC	DISCONNECT(ING)	MTD	MOUNTED
DWG	DRAWING(S)	MTG	MOUNTING
EA	EACH	NEC	NATIONAL ELECTRICAL CODE
EX	EXHAUST FAN	OFOI	OWNER FURNISHED
EMT	ELECTRICAL METALLIC TUBING		OWNER INSTALLED
EQUIP	EQUIPMENT	PNL	PANEL
EUH	ELECTRIC UNIT HEATER	PSI	PULL STATION CHORD
EWC	ELECTRIC WATER COOLER	PVC	POLYVINYL CHLORIDE
EWH	ELECTRIC WATER HEATER	REC	RECEPTACLE
EXH	EXHAUST	RGS	RIGID GALVANIZED STEEL
EXIST	EXISTING	TEL	TELEPHONE
EXP	EXPLOSION PROOF	TYP	TYPICAL
FA	FIRE ALARM	UON	UNLESS OTHERWISE NOTED
FLA	FULL LOAD AMPERES	V	VOLTS
FLUOR	FLUORESCENT	VA	VOLT-AMPERES
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	VFD	VARIABLE FREQUENCY DRIVE
GFI	GROUND FAULT PROTECTION	W	WATTS
GND	GROUND	WP	WEATHER PROOF
GND	HEIGHT	XFMR	TRANSFORMER
HID	HIGH INTENSITY DISCHARGE		
HPS	HIGH PRESSURE SODIUM		
HA	HAND-OF-AUTOMATIC		
HP	HORSEPOWER		
HVAC	HEATING/VENTILATING/ AIR CONDITIONING		
HV	HIGH VOLTAGE		

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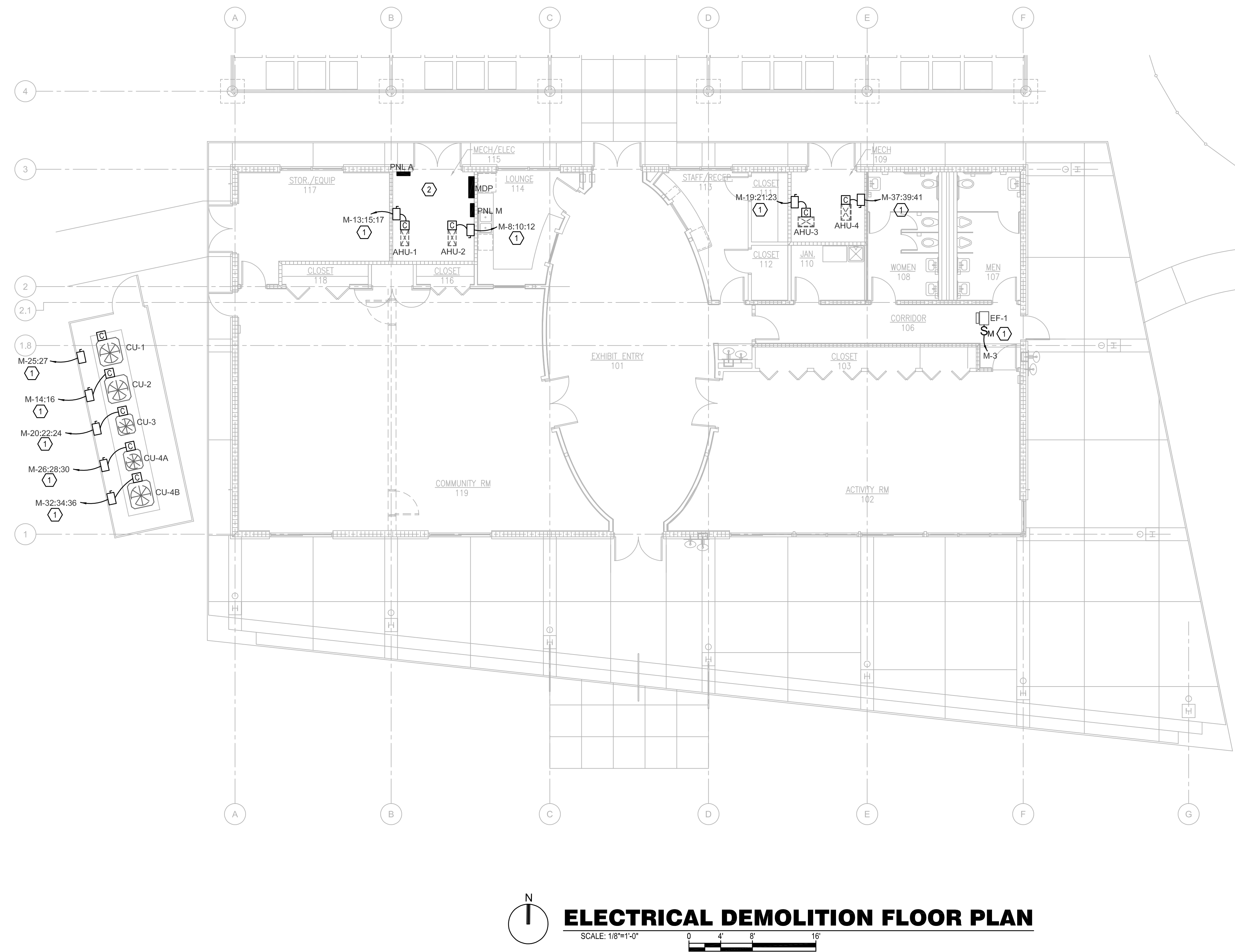
**CAPEHART PARK
HVAC REPLACEMENT**

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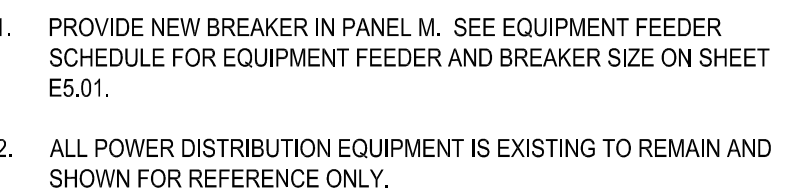
**ELECTRICAL DEMOLITION
FLOOR PLAN**

ED1.01



- a. REFER TO SYMBOL LEGEND ON SHEET E0.01.
- b. REFER TO BOOK SPECIFICATIONS.
- c. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS TO COORDINATE EXACT PLACEMENT OF ALL DEVICES, EQUIPMENT, FIXTURES, SWITCHES AND OUTLETS.
- d. REFER TO EQUIPMENT SCHEDULES ON DRAWINGS E5.01 FOR DISCONNECT, CONDUIT AND WIRE SIZES.
- e. ALL FEEDERS ARE TO HAVE LESS THAN 2% TOTAL VOLTAGE DROP AND ALL BRANCH CIRCUITS SHALL HAVE LESS THAN 3% VOLTAGE DROP..
- f. CONTRACTOR SHALL PERFORM CIRCUIT TRACE ON ALL BRANCH CIRCUITS IN PANEL BEING REPLACED AND PROVIDE AN UPDATED TYPEWRITTEN PANEL SCHEDULE IDENTIFYING CIRCUITS FED AND LOCATION AND/OR ROOM NUMBER.
- g. CONTRACTOR TO SEGREGATE ALL GROUNDS AND NEUTRALS ONTO THE CORRECT BUS.
- h. CONTRACTOR TO CONFIRM THAT THERE IS A GROUND CONDUCTOR FOR EACH LOAD OR THAT THE CONDUIT PATH GROUND IS CONTINUOUS FOR EACH LOAD.
- i. CONTRACTOR SHALL PROVIDE ARC FLASH WARNING LABELS FOR ALL NEW PANELS AND PANELS BEING REPLACED.
- j. CONTRACTOR TO CHECK PHASE ROTATION PRIOR TO DISCONNECTION AND AFTER RECONNECTION OF POWER.
- k. CONTRACTOR TO IDENTIFY CONDUITS EXITING PANEL WITH CIRCUIT NUMBER INFORMATION.
- l. ENSURE ALL WIRES ARE TAGGED PER IDENTIFICATION SPECIFICATION.
- m. CONTRACTOR SHALL REMOVE ALL CIRCUIT WIRES AND CONDUITS FROM REMOVED EQUIPMENT AND LEAVE CIRCUIT BREAKERS AS SPARES.
- n. TRACE, VERIFY, AND RECORD ALL EQUIPMENT FEEDER CIRCUITS PRIOR TO ANY WORK BEING DONE. CIRCUIT DESIGNATIONS INDICATED ARE FROM THE LATEST RECORD DOCUMENTS.
- o. DRAWINGS ARE DIAGRAMMATICAL, FIELD VERIFY THE EXACT LOCATION OF ALL EQUIPMENT BEING REMOVED.
- p. DISCONNECT ELECTRICAL CONNECTION FROM HVAC EQUIPMENT BEING REPLACED. PROTECT CIRCUIT DURING CONSTRUCTION AND RECONNECT TO NEW HVAC EQUIPMENT BEING INSTALLED.
- q. COORDINATE WITH HVAC SYSTEM BEING REPLACED TO RELOCATE AND/OR REMOVE ANY CEILING MOUNTED FIXTURES OR DEVICES NECESSARY. ALL ITEMS ARE TO BE REINSTALLED IN THEIR CURRENT LOCATION AFTER HVAC INSTALLATION IS COMPLETE.

1. ALL ELECTRICAL TO BE REMOVED BACK TO SOURCE.
2. ALL POWER DISTRIBUTION EQUIPMENT IS EXISTING TO REMAIN AND SHOWN FOR REFERENCE ONLY.



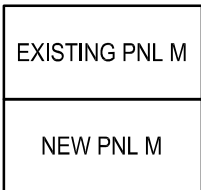
EXISTING PANEL M



GENERAL NOTES:

- (1) - PROVIDE DISC. SW. AT ALL PIECES OF EQUIPMENT NOT WITHIN SIGHT OF THE OVERCURRENT PROTECTIVE DEVICE
- (2) - PUSHS SHOWN FOR REFERENCE ONLY. PROVIDE PUSHS AS RECOMMENDED BY EQUIP. MFG.
- (3) - PROVIDE NEMA OUTDOOR RATED ENCLOSURES FOR ALL DISC. SW'S MOUNTED OUTDOORS
- (4) - COORDINATE STARTER TYPE WITH MECHANICAL EQUIPMENT
- (5) - COORDINATE ALL OVERCURRENT PROTECTIVE DEVICES WITH THE ACTUAL EQUIPMENT BEING SUPPLIED. NOTIFY THE ENGINEER IF DISCREPANCIES ARE NOTED
- (6) - DISCONNECTS BETWEEN MOTORS AND VFC'S SHALL BE PROVIDED WITH AN AUXILIARY CONTACT AND WIRING TO THE E-STOP OF THE VFD.

NEW REVISED PANEL M
NOT TO SCALE



Issue:

[illegible]

Project Name:

CAPEHART PARK HVAC REPLACEMENT

Project Number: 2018-131	Drawing File Name:
Scale: AS NOTED	Seal:
Design By:	
Drawn By:	
Checked By:	
Engineer of Record:	
License Number:	

Sheet Name:

ELECTRICAL ONE LINE, PANEL SCHEDULES & DETAILS

Sheet Number:

E5.01