	OF ALL UNDERGROUND UTILITIES.	1. ESTABLISH GRADES NECESSARY TO INSTAL ESTABLISHED CONSTRAINTS.
2)	THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS NECESSARY TO COMPLETE THE REQUIRED WORK AND SHALL ARRANGE FOR AND PROVIDE ALL UTILITY CONNECTIONS, METERS, ETC. TO EXISTING SERVICES.	2. PROVIDE 1% (1:100) MIN. SLOPE ON A 1.5% (1:50) MAX. CROSS SLO
3)	THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL MATERIAL, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY FOR COMPLETION OF WORK SHOWN ON THESE PLANS.	APPROVAL)
4)	ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.	3. IMMEDIATELY NOTIFY THE OWNER IN WRITI MET
5)	ALL MATERIALS AND WORKMANSHIP PERFORMED BY THE CONTRACTOR SHALL BE IN ACCORDANCE WITH ALL LAWS AND ORDINANCES OR CODES BY GOVERNMENTAL	4. REPAIR ANY AND ALL AREAS DISTURBED BY PRE-CONSTRUCTION STATE.
	AUTHORITIES AND SHALL UTILIZE GOOD CONSTRUCTION PRACTICES.	5. COMPLETE ALL INCIDENTAL BACKFILL, FINE ACCEPTANCE AND FINAL PAYMENT BY CITY
3)	THE CONTRACTOR SHALL PROVIDE EVIDENCE OF INSURANCE (INCLUDING WORKMAN'S COMPENSATION) NECESSARY FOR THE SCOPE AND TYPE OF WORK TO BE PERFORMED.	1. PROVIDE 2" MIN. COVER OVER ALL REBAR (
7)	THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL MATERIALS AND DEBRIS GENERATED BY CONSTRUCTION ACTIVITY AND SHALL DELIVER	<ul><li>BRICKS (REQUIRED).</li><li>2. CONCRETE SHALL BE MIN 3000 PSI AFTER</li></ul>
<b>.</b> .		3. PROVIDE LIGHT BROOM FINISH ON ALL CON DIRECTION OF TRAVEL.
5)	THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROVIDE A SAFE AND SECURE PROJECT SITE FOR BOTH THE GENERAL PUBLIC AS WELL AS ITS WORKERS AND SUBCONTRACTORS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND CODES.	4. EXPANSION JOINT 4.1. MATERIAL: ASPHALT/FIBER OR OTHER 4.2. THICKNESS: $\frac{1}{2}$ " THICK FOR FULL DEPT
<b>)</b> )	THE CONTRACTOR SHALL MAINTAIN OR REROUTE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC WHERE IN CONFLICT WITH THE WORK.	<ul> <li>4.3. TOP TEAR OFF STRIP RECOMMENDED</li> <li>4.4. TOP OF JOINT SHALL BE FILLED WITH F EXPANSION JOINT FILLER/SEALER</li> <li>4.5. EXPANSION JOINT MATERIAL SHALL NO</li> </ul>
.0)	ANY WORK NOT SPECIFICALLY SHOWN ON THESE PLANS THAT WOULD BE CONSIDERED STANDARD PRACTICE FOR THIS PROJECT SHALL BE INCLUDED IN BID AS PART OF THE PROJECT SCOPE.	<ul> <li>5. PROVIDE 1/2" RADIUS ON ALL EXPOSED ED</li> </ul>
1)	CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL ON-SITE CONDITIONS AND DIMENSIONS, SLOPES, AS WELL AS THE CONFIGURATION OF ALL EXISTING BUILDINGS AND STRUCTURES RELATED TO THE WORK. ANY DISCREPANCIES SHOULD BE REPORTED IMMEDIATELY TO THE OWNER, PRIOR TO ORDERING MATERIALS, FABRICATING ELEMENTS, OR PERFORMING THE CONSTRUCTION OF THE AFFECTED PORTION(S) OF THE PROJECT.	<ul> <li>EXPOSED CONCRETE SURFACES.</li> <li>A CITY REPRESENTATIVE <u>MUST</u> INSPECT ALI POURING ANY CONCRETE. CONTRACTOR SH DIRECTED BY CITY REPRESENTATIVE AND P DURING INSPECTION. ANY CONCRETE POUR INSPECTION AND WRITTEN ACCEPTANCE IS REPLACEMENT OF UNACCEPTABLE CONCRE</li> </ul>
2)	ALL CLAY BRICKS AND GRANITE CURBS REMOVED AS PART OF THIS PROJECT ARE THE PROPERTY OF THE CITY OF TAMPA, UNLESS OTHERWISE NOTED, AND SHALL BE STOCKPILED WITH REASONABLE CARE AND RETURNED TO THE CITY OF TAMPA OR REUSED ON THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR STORING AND/OR	<ol> <li>PLACE EXPANSION AND CONTRACTION JOIN (CUT 2" DEEP) - SPACING TO EQUAL WALKW CITY REPRESENTATIVE.</li> </ol>
	DELIVERING ALL CITY PROPERTY NOT REUSED IN PROJECT.	8. PRIOR TO JOB COMPLETION AND FINAL INSI MATERIAL IS TO BE REMOVED AND DISPOSI

#### L THE INTENDED DESIGN USING THE

ALL CONCRETE SLABS AND WALKS. OPE FOR DRAINAGE (OR PER GRADING PLAN). IN WALKWAYS (WITHOUT WRITTEN CITY/OWNER

TING IF ANY ASPECT OF THE PLAN CAN NOT BE

Y CONSTRUCTION ACTIVITIES EQUAL TO THE

IE GRADING, AND SOD WORK PRIOR TO JOB Y OF TAMPA.

## DTES

OR WIRE FABRIC. USE CHAIRS OR CEMENT

R 30 DAYS

R APPROVED MATERIAL TH OF THE SLAB

I POLYURETHANE SELF LEVELING CONCRETE

NOT PROTRUDE ABOVE GRADE OF ADJACENT

DGES. STONE FINISH ANY FORM LINES ON

LL CONCRETE FORMS 24 HOURS PRIOR TO SHALL BE PREPARED TO MODIFY FORMS AS PROVIDE DOCUMENTATION FOR COMPACTION JRED PRIOR TO CITY REPRESENTATIVE'S S SUBJECT TO REMOVAL, DISPOSAL, AND RETE AT CONTRACTOR'S SOLE EXPENSE.

INTS AS SHOWN ON PLAN. CONTRACTION JOINTS WAY WIDTH OR AS DETERMINED IN FIELD BY

SPECTION, ALL FORMS, DEBRIS, AND EXCESS

## **CODE INFORMATION**

APPLICABLE CODES

2020 FLORIDA BUILDING CODE (7TH EDITION) NATIONAL ELECTRICAL CODE (NEC) 2017

APPROVED By Steve Moraga at 6/7/2022 2:31:45 PM







![](_page_3_Figure_0.jpeg)

![](_page_3_Figure_3.jpeg)

![](_page_3_Picture_4.jpeg)

	HVAC SYN NOTE: ALL SYMBOLS N	<b>IBOLS LIST</b>	
PIPIN	G	VALVES	
HEATING WATER SUPPLY	——— HWS ———	2-WAY CONTROL VALVE	�
HEATING WATER RETURN	——— HWR ———	3-WAY CONTROL VALVE	K
CHILLED WATER SUPPLY	CWS	BALANCE/SHUT-OFF VALVE	——₩——
CHILLED WATER RETURN	CWR	BALL VALVE	
LOW PRESSURE STEAM	LPS( #)	BUTTERFLY VALVE	—N
LOW PRESSURE CONDENSATE	LPR( #)	CHECK VALVE	
HIGH PRESSURE STEAM	——— HPS(# ) ———	ISOLATION VALVE - SEE PROJECT	$ \longrightarrow $
HIGH PRESSURE CONDENSATE	——— HPR(# ) ———	SPECIFICATIONS FOR REQUIREMENTS	-
CONDENSATE PUMP DISCHARGE	CPD	GATE VALVE	——————————————————————————————————————
COOLING COIL CONDENSATE	C	GLOBE VALVE	$\longrightarrow$
VENT	V	PLUG VALVE	I⊽I
EXISTING TO REMAIN	(E)	PRESSURE REDUCING VALVE	ð
EXISTING TO BE REMOVED	(R)	PRESSURE RELIEF VALVE	<u>لا</u>
EXISTING TO BE ABANDONDED	——— (AB) ———		<b>卒</b>
SPECIAL	TIES	DUCTWORK AND MISCE	ELLANEOUS
	$\sum_{i=1}^{n}$	ACCESS DOOR	A.D.
AUTOMATIC AIR VENT WITH BALL VALVE			A.D.
MANUAL AIR VENT			
CONCENTRIC INCREASER	>		
CONCENTRIC REDUCER		SMOKE DAMPER _	
ECCENTRIC INCREASER		SD SD	
ECCENTRIC REDUCER	$\nabla$	COMB. FIRE/SMOKE DAMPER	
FILL FUNNEL FLEXIBLE CONNECTION			
FLOW ARROW	<del>&gt;</del>		
FLOW SWITCH	Ę	MOTOR OPERATED DAMPER	
	Ø −	DUCT DROP -	X
GAUGE WITH BALL VALVE	Ť	DUCT RISE	$\bowtie$
HEAT TRACED PIPE METER	——/////// ——	DUCT CHANGE IN ELEVATION	UP (OR DOWN)
PIPE ANCHOR	——————————————————————————————————————	FLEX DUCT	
САР		=	J I I I I L
DROP	>)	TURNING VANES —	ĺ́́
RISE	O	DUCT SECTIONS	
PRESSURE/TEMPERATURE TEST DUUG	Y	POSITIVE PRESSURE (SUPPLY)	
PIPE ALIGNMENT GUIDE		NEGATIVE PRESSURE (RETURN/EXHAU	ST)
FIRE RATED PIPE SLEEVE		ROUND	
SIGHT GLASS	(••)	FLAT OVAL	
STRAINER		SPIN-IN FITTING	
	Φ		
		CO2 SENSOR	C
	 		e e
UNION OR FLANGE	<u>l</u> '	THERMOSTAT OR SPACE TEMPERATURE SENSOR (MOUNT 60" A.F.F. U.N.O.)	T
VACUUM BREAKER		HUMIDITY SENSOR	$(\blacksquare)$
VALVE IN RISER/DROP	K K0	SMOKE DETECTOR BY DIV. 26 DIV 23H TO PROVIDE DUCT ACCESS DOOR AT EACH OF THESE LOCATIONS	Ś
		DIFFUSER	$\bowtie$
		RETURN AIR DEVICE	

TAG AREA SERV SERVICE MANUFA MODEL **AIR QUAN** FAN SPEE MOTOR ELECTRICAL

 $\Leftrightarrow$ 

ÔC

TERMINAL BOXES, WITH/WITHOUT REHEAT

CONNECT TO EXISTING

DENOTES ITEM PROVIDED BY

ANOTHER CONTRACTOR, SHOWN

FOR COORDINATION OR REFERENCE

# CHILLER SCHEDULE

	CH-1
UNIT NOMINAL TONNAGE	26 TONS
UNIT TYPE	HIGH EFFICIENCY
REFRIGERATION CAPACITY	25.16 TONS
COOLING EFFICIENCY	10.000 EER (BTU/W-H)
IPLV.IP	14.73 EER (BTU/W-H)
NPLV.IP	14.76 EER (BTU/W-H)
ELEVATION	0.000 FT
UNIT FREQUENCY	60. HERTZ
UNIT VOLTAGE	208.VOLT 3 PHASES
REFRIGERANT TYPE	R410A
NUMBER OF COMPRESSOR	2
NUMBER OF CIRCUITS	1
NUMBER OF CAPACITY STEPS	2
EVAPORATOR LEAVING	44.00 F
EVAPORATOR ENTERING	55.99 F
FLUID TYPE	WATER
FREEZE POINT	32.00 F
DESIGN FLOW	50.16 GPM
MIN FLOW	29.80 GPM
TOTAL PD EVAP+STRAINER	9.26 FT H2O
DESIGN EVAP PD	8.26 FT H2O
MIN PD	3.54 FT H2O
FREEZE PROTECTION	WITH FREEZE PROTECTION
FOULING FACTOR	0.000100 HR-SQ FT-DEG F/ BTU
FLOW SWITCH SET POINT	FLOW SWITCH SET POINT 60 CM/SEC
WATER CONNECTION SIZE	2.500 IN
AMBIENT AIR TEMP.	95.0 F
FIN MATERIAL	COMPLETE COAT
CHILLER CORROSION PROTECTION	MODINE
TOTAL AIRFLOW	19176 CFM
NUMBER OF FANS	2
COMPRESSOR STARTER	ACROSS THE LINE
TOTAL POWER	30.20 KW
COMPRESSOR POWER	27.51 KW
FAN POWER	2.507 KW
FAN FLA	6.70 A
INCOMING POWER LINE CONN. TYPE	SINGLE POINT
POWER LINE CONN. TYPE	CIRCUIT BREAKER-HIGH FAULT RATED
STARTUP ALLOWANCE	UNIT STARTUP BY MFG.
SHORT CIRCUIT CURRENT OPTION	HIGH
SHORT CIRCUIT CURRENT RATING	65000 A
SINGLE POINT POWER MCA	150 A
SINGLE POINT POWER MOP	200 A

# AHU SCHEDULE

	AHU-1	AHU-2
ΤΟΤΑΙ CAPACITY	49.81 MBH	197.33 MBH
SENSIBLE CAPACITY	33.82 MBH	126.05 MBH
ENTERING DRY BULB TEMP	78.10 F	79.40 F
ENTERING WET BULB TEMP	66.20 F	67.70 F
LEAVING DRY BULB TEMP	52.95 F	53.44 F
LEAVING WET BULB TEMP	52.65 F	53.15 F
PRESSURE DROP	0.589 IN H2O	0.618 IN H2O
FLOW RATE	8.27 GPM	32.77 GPM
ENTERING TEMP	44.00 F	44.00 F
LEAVING TEMP	56.00 F	56.00 F
PRESSURE DROP	5.32 FT H2O	10.85 FT H2O
TUBE VELOCITY	2.03 FT/S	2.68 FT/S
REYNOLDS NUMBER	5926.17	7825.76
ТҮРЕ	WATER	WATER
VOLUME	2.20 GAL	6.23 GAL
AIRFLOW	1220 CFM	4400 CFM
TOTAL STATIC PRESSURE	3.589 IN H2O	4.208 IN H2O
TOTAL BRAKE POWER	1.119 HP	4.248 HP
OPERATING SPEED	2868 RPM	1942 RPM
MOTOR INTERFACE TYPE	ECM	ECM
VOLTAGE	208.0 V	208.0 V
MCA	40.47A	93.15A
MOP	45.00A	100.00A
POWER / FAN	MOTORIZED IMPELLER SUPPLY FAN	MOTORIZED IMPELLER SUPPLY FAN
VOLTAGE	208.0 V	208.0 V
SPEED	2868 RPM	1942 RPM
SUPPLY AIR	1220 CFM	4400 CFM
OUTSIDE AIR	220 CFM	1118 CFM
FACE VELOCITY	1633 FT/MIN	2112 FT/MIN
ELECTRIC HEAT KW	8.0 KW W/ SCR CONTROLLER	20.0 KW W/ SCR CONTROLLER
TOTAL RE-HEAT CAPACITY	27.32 MBH	68.30 MBH
TYPE FILTERS / THICKNESS	MERV-7 / 2"	MERV-7 / 2"
RE-HEAT ENTERING AIR TEMP	45.00 F	45.00 F
RE-HEAT LEAVING AIR TEMP	65.73 F	59.37 F
RE-HEAT PRESSURE DROP	0.137 IN H2O	0.158 IN H2O
FILTER/MIXING AIR PRESSURE DROP	1.197 IN H2O	1.236 IN H2O
COOLING COIL PRESSURE DROP	0.589 IN H2O	0.618 IN H2O
TOTAL STATIC PRESSURE	1.250 IN H2O	1.500 IN H2O
DISCHARGE PRESSURE DROP	0.416 IN H2O	0.695 IN H2O
SUPPLY FAN TOTAL STATIC PRESSURE	3.589 IN H2O	4.208 IN H2O

# FAN SCHEDULE

	EF-1	EF-2	EF-3	EF-4	EF-5
VED	105 - RESTROOM	105 - RESTROOM	105 - RESTROOM	105 - RESTROOM	105 - QUIET RM
	EXHAUST	EXHAUST	EXHAUST	EXHAUST	EXHAUST
CTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
	SP-B80	SP-B80	SP-B80	SP-B80	SP-B80
ITITY (CFM)	50	50	50	50	50
D (RPM)	819	819	819	819	819
	54W	54W	54W	54W	54W
AL	115V / 1P / 60 HZ				

	AIR TERMINAL SCHEDULE				
TAG	TYPE	SIZE			
D2	Supply Diffuser - Rectangular Face Round Neck: 24x24 - 8 Neck	8"ø			
D3	Supply Diffuser - Rectangular Face Round Neck: 12x12 - 6 Neck	6"ø			
R1	Return Diffuser - Hosted: Workplane-based Return Diffuser	8"x8"			
R2	Return Diffuser - Hosted: AHU-1 Return	24"x24"			

TRANE UCCAR03

36" RANGE HOOD

#### MECHANICAL EQUIPMENT LIST

CHILLED WATER PLANT: TRANE 20 TON CGAM020A2 AUR HANDLING UNIT 1: AIR HANDLING UNIT 2: TRANE UCCAR10 DIRECT DIGITAL CONTROLS: KMC CONTROLS RESTROOM EXHAUST: DRYER VENT: RANGE HOOD: ELECTRIC HAND DRYERS: WORLD DRYERS, TOUCHLESS, ANTIMICROBIAL

SCOPE OF PERMIT LIMITED TO INSTALLATION OF CHILLER.

![](_page_4_Figure_12.jpeg)

![](_page_5_Figure_0.jpeg)

#### MECHANICAL GENERAL NOTES

- 1. MECHANICAL CONTRACTOR SHALL CONFIRM SIZE CONSTRAINTS EXISTING ON SITE PRIOR TO FABRICATION OF ANY DUCT WORK. IF CONDITIONS EXIST THAT PROHIBIT DESIGNED LAYOUT FROM WORKING, THEN NOTIFY ARCHITECT FOR PROPER COURSE OF ACTION IMMEDIATELY. CONTRACTOR SHALL ENSURE 10'-0" CLEARANCE IS MAINTAINED ON ALL INTAKE AND EXHAUST SYSTEMS.
- MECHANICAL CONTRACTOR MUST FIELD COORDINATE 2. ALL DUCTWORK CLEARANCES WITH WOOD JOIST AND STEEL TRUSS STRUCTURE IN FIELD BEFORE FABRICATION OF ANY DUCTWORK.
- DUCT WRAP/ASJ INSULATION (ON ALL SUPPLY AND MAKE-UP AIR DUCTWORK): PROVIDE 2" THICK FIBERGLASS ASJ DUCT WRAP WITH VAPOR SEAL ON ALL SUPPLY AIR AND MAKE-UP AIR DUCTWORK ABOVE THE CEILING. CONFORM TO FEDERAL SPEC. HH-1-5588 (AMMEN. 3) TYPE 75, FORM B, TYPE 1, CLASS B-2
- RIGID ROUND GALVANIZED DUCT SHALL BE SPIRAL OR 4 SNAP LOCK GALVANIZED SHEETMETAL COMPLYING WITH SMACNA. (SNAP LOCK IS NOT ALLOWED IN THE DINING AREA.)
- 5. FLEX DUCT: PROVIDE FACTORY ASSEMBLED CLASS 1 AIR DUCT (UL WITH 1" THICK 1 PCF FIBERGLASS INSULATION AND REINFORCED OUTER PROTECTIVE COVER OR VAPOR BARRIER. FLEX DUCT SHALL MEET NFPA 90A WITH FLAME SPREAD UNDER 25, SMOKE DEVELOPED UNDER 50, AND SHALL BE RATED FOR 2" W.G. PRESSURE AND 0 TO 250 DEGREE FAHRENHEIT PROVIDE METAL ADJUSTABLE CLAMPING DEVICES, SCREW OPERATED. USE TWIST-LOCK CONICAL TAP COLLARS AT CONNECTIONS INTO SHEET METAL DUCTWORK. DO NOT EXCEED FIVE (5) FEET IN LENGTH FOR ANY FLEX DUCT.
- PROVIDE SHEET METAL PLENUMS ONLY W/ EXTERNAL 6 **RIGID BOARD INSULATION: PLENUM ENCLOSURE** CONSTRUCTION MATERIALS THAT ARE EXPOSED TO THE AIRFLOW SHALL COMPLY WITH THE **REQUIREMENTS OF SECTION 703.5 OF THE FLORIDA** BUILDING CODE, BUILDING OR SUCH MATERIALS SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723.
- 7. ROUND BALANCING DAMPERS: FABRICATED OF SAME MATERIAL AS DUCT, TWO METAL GAUGES HEAVIER THAN DUCT. MOUNT ON 3/8" SQUARE ROD WITH SAW SLOT POSITION INDICATOR. PIVOT BEARING, LOCKING POSITION REGULATOR, YOUNG REGULATOR CO., SERIES REGULATOR SHALL BE POSITIONED WITH SHEETMETAL BRACKET BEYOND DUCT CONVERING.
- CEILING DIFFUSERS/RETURNS: PROVIDE SUPPLY DIFFUSERS AND DAMPER IN SIZES. CAPACITIES. MATERIALS, AND PATTERN INDICATED ON THE DRAWINGS.
- Q PROVIDE WHERE APPLICABLE, DUCT MOUNTED SUPPLY AND/OR RETURN AIR PHOTOELECTRIC TYPE UL LISTED SMOKE DETECTORS. DETECTORS SHALL HAVE TWO FORM C CONTACTS. CONTACT ONE FOR POWER, CONTACT TWO FOR FIRE ALARM. DETECTORS SHALL BE LISTED FOR THE AIR VELOCITIES ENCOUNTERED.
- 10. ROOF PENETRATIONS SHALL COMPLY WITH SMACNA AND NRCA STANDARDS.
- 11. TEST AND ADJUST EACH PIECE OF EQUIPMENT AND EACH SYSTEM AS REQUIRED TO ASSURE PROPER BALANCE AND OPERATION. TEST SHALL BE PER NEEBB OR AABC, AND ASHRAE STANDARDS. ELIMINATE NOISE AND VIBRATION, AND ASSURE PROPER FUNCTION OF ALL CONTROLS, MAINTENANCE OF TEMPERATURE, AND OPERATION. BALANCE MECHANICAL SYSTEM, AND SUBMIT COMPLETED TEST REPORT TO CONSTRUCTION MANAGER, PRIOR TO **REQUEST FOR FINAL PAYMENT. BALANCING** CONTRACTOR MAY BE AN INDEPENDENT CERTIFIED TEST AND BALANCE CONTRACTOR, NEBB OR AABC OT THE HVAC CONTRACTOR WITH AIR BALANCE EXPERIENCE AND PROPER EQUIPMENT.
- 12. OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL DEMOLISHED HVAC EQUIPMENT AND COMPONENTS.

![](_page_5_Picture_17.jpeg)

![](_page_6_Figure_0.jpeg)

![](_page_6_Figure_2.jpeg)

- 1 CHILLED WATER PIPING DETAIL N.T.S.

![](_page_6_Figure_5.jpeg)

![](_page_6_Figure_6.jpeg)

![](_page_6_Figure_7.jpeg)

![](_page_6_Figure_8.jpeg)

![](_page_7_Figure_0.jpeg)

![](_page_7_Figure_3.jpeg)

2 CONCRETE PAD UNIT TIE-DOWN DETAIL 1 1/2" = 1'-0"

# **SEQUENCE OF OPERATION**

<u>AIR HANDLER VARIABLE AIR VOLUME</u>

THE FACILITY IS INTENDED TO OPERATE CONTNUOUSLY. THE AHUS SUPPLY FANS WILL BE CONTNUOUSLY ENERGIZED. POSITIVE BULDING PRESSURIZATION WILL BE MAINTANED BY MONITORNG EXHAUST RATES VS. OA MAKE-UP AIR RATES. EXHAUST RATES WILL BE DETERMNED BY OCCUPANCY SENSORS NTERLOCKED WITH MOTORIZED CONTROL DAMPERS, WHICH OPEN & CLOSE BASED ON OCCUPANCY OF DESIGNATED SPACES. CO2 SENSORS WILL ALSO MONITOR SPACE CONDITIONS, MODULATNG OA MAKE-UP AR RATES TO REDUCE CO2 LEVELS BELOW SETPOINT.

AIR HANDLER: DE-ENERGIZED:

WHEN THE AHU'S SUPPLY FANS ARE DE-ENERGIZED, 3-WAY CHILLED WATER VALVES ARE CLOSED TO THE COIL AND THE OUTSOE AIR DAMPERS ARE DRIVEN TO THEIR CLOSED POSITION.

AIR HANDLER: ENERGIZED UPON RECEIVING A SIGNAL TO START, THE AHU'S SUPPLY FAN WILL BE ENERGIZED. FAN OPERATION WILL BE MONITORED BY A CURRENT SENSING CONTROLLER LOCATED ON THE ECM FAN MOTOR. THE AHU'S VARIABLE DRIVE MOTOR (ECM) WILL BE RAMPED TO SETPOINT IN ORDER TO MAINTAIN SPACE TEMPERATURE SETPOINT (ADJUSTABLE) AS SENSED BY A SPACE THERMOSTAT

LOCATED IN EACH ZONE. THE AHU'S 3-WAY CHILLED WATER VALVE WLL BE MODULATED IN ORDER TO MAINTAN A DISCHARGE AIR TEMPERATLRE OF 55 DEGF COOLING, ADJSTABLE AND CLOSED N HEATING MODE. RETURN AR TEMPERATLRE AND HUMIDITY WILL BE MONITORED BY A COMBNATION TEMPERATURE/HUMIDITY SPACE SENSOR, LOCATED IN EACH ZONE.

LOW OCCUPANCY MODE: WHEN THE AHU'S SUPPLY FANS ARE ENERGIZED, 3-WAY CHILLED WATER VALVES ARE OPENED TO THE COIL TO MAINTAIN SPACE TEMPERATURE. THE VARIABLE FREQUENCY DRIVE CONTROLLING THE OUTSIDE AR UNIT (OAU) IS DRIVEN TO A MINIMUM POSITION (ADJUSTABLE) AND OUTSDE AIR DAMPERS ARE MODULATED TO MAINTAIN MINIMAL OUTSIDE AR TO EACH AHU IN ORDER TO MEET BLDG. PRESSURIZATION AND CO2 SETPOINTS.

OCCUPIED COOLING MODE: UPON A RISE IN SPACE TEMPERAME ABOVE THE COOLING SETPOINT (74 DEGF. ADJUSTABLE), THE KMDIGITAL CONTROLLER WLL MODULATE THE AHU'S ECM FAN MOTOR FROM ITS MINMUM TOWARDS ITS MAXIMUM AIR FLOW SETTING. THE REVERSE WILL OCCUR UPON A DECREASE IN TEMPERATURE BELOW ITS COOLING SETPONT. IN ADDITION, THE AHU'S 3-WAY VALVE SHALL BE MODULATED TO INCREASE FLOW TO THE COIL TO MAINTAN A LEAVING AR TEMPERATURE OF 55 DEG F, ADJUSTABLE.

OCCUPIED HEATING MODE

UPON A FALL IN SPACE TEMPERATLRE BELOW THE HEATING SETPOINT (COOLING SETPONT MINUS 4 DEGF), THE KMDIGITAL CONTROLLER WLL MODULATE THE AHU FAN MOTOR TOWARDS THE MINIMUM AIR FLOW SETTING. UPON A FURTHER DIROP IN SPACE TEMPERATURE, ELECTRIC HEATER WILL ENGAGE TO MAINTAIN SPACE TEMPERATURE. THE KMD CONTROLLER WLL MONITOR THE DISCHARGE AIR TEMPERATURE AFTER THE HEATING COIL.

HUMDITY CONTROL: THE CHILLED WATER VALVE SHALL BE MODULATED TO MAINTAIN SPACE TEMPERATURE AND RELATIVE HUMIDITY (RH). UPON A RISE IN RH ABOVE 60% (ADJUSTABLE), THE CHILLED WATER VALVE SHALL BE DRIVEN TO ITS FULL OPEN POSITION. SIMULTÁNEOUSLY, THE ELECTRIC HEAT CONTROLLER SHALL BE STEPPED TO MANTAIN SPACE TEMPERATURE SETPOINT. THS SEQUENCE SHALL CONTINUE UNTIL THE RH OF THE SPACE DROPS BELOW 55F (ADJUSTABLE).

CHILLER PLANT: THE CHILLER PLANT IS A PACKAGED SYSTEM W/TWO VFD CONTROLLED PUMPS LOCATED ONBOARD. THE SYSTEM IS INTENDED TO FUNCTION WITH A CONSTANT VOLUME PUMPING ARRANGEMENT W/THE SECOND PUMP OPERATING AS BACK-UP, ALTERNATED PER DDC SCHEDULING AND COORDINATED WITH CHILLER'S INTERNAL CONTROLLER.

THE CHILLER WILL BE ENERGIZED BASED ON THE FOLLOWING:

CH-1 NORMAL OCCUPANCY HOURS.

WILL BE STARTED.

THE LEAD/STANDBY SELECTION OF THE PUMPS WILL BE ALTERNATED ON A WEEKLY BASIS.

CHILLER PLANT OFF WHEN THE CHILLER PLANT IS NOT INDEXED FOR OPERATION, THE CHILLERS' ISOLATION VALVES WILL BE CLOSED AND ALL PUMPS WILL BE DE-ENERGIZED.

CHILLER PLANT ON THE CHILLER PLANT WILL BE ENABLED WHEN THE FACILITY AIR HANDLERS ARE SCHEDULED FOR OPERATION AND THE SPACE TEMPERATURE RISES ABOVE SETPOINT. THE CHILLER'S ISOLATION VALVES WILL BE OPENED, THE LEAD PRIMARY PUMP (P-1 OR 2)

THE SPEED OF THE PRIMARY PUMP WILL BE VERIFIED BY THE TEST AND BALANCE CONTRACTOR, TO ENSURE FLOW RATES ARE WITHIN THE CHILLER MANUFACTURER SPECIFICATIONS. THE KMD CONTROLLER SHALL INDEX FROM THESE READINGS AND CONTROL SYSTEM PARAMETERS ACCORDINGLY.

WHEN CHILLED WATER FLOW IS PROVEN, VIA BACNET INTERFACE OR OTHER, THE CHILLER WILL BE ENABLED.

STEEL BASE RAIL

14 GAUGE GALVANIZED STEEL ANGLE, 3"X3" BEARING SURFACES

1 INCH DIA X 1-/ " GALVANIZED STEEL SELF TAPPING SCREWS THRU EQUIPMENT RAILS

1 INCH DIA X 3" GALVANIZED STEEL **EXPANSION BOLTS** THRU CONCRETE

CHILLER UNIT

STEEL BASE RAILS AS A COMPONENT OF THE EQUIPMENT NEOPRENE BEARING PAD PER MANUFACTURER'S LOCATION

4-INCH THICK **REINFORCED CONCRETE** EQUIPMENT PAD BY GENERAL CONTRACTOR

- EQUIPMENT SECUREMENT, PROVIDE TWO PER LONGEST TWO SIDES OF EQUIPMENT. SEE ENLARGED VIEW FOR ATTACHMENT REQUIREMENTS

![](_page_7_Figure_36.jpeg)

## Project Summary

Location and Weather	
	KID MASON
Project	COMMUNITY
	CENTER
Address	
Calculation Time	Monday, August
	23, 2021 2:31 PM
Report Type	Simple
Latitude	27.95°
Longitude	-82.46°
Summer Dry Bulb	93 °F
Summer Wet Bulb	81 °F
Winter Dry Bulb	37 °F
Mean Daily Range	15 °F

# Building Summary

Inputs	
Building Type	Office
Area (SF)	4,156
Volume (CF)	37,548.99
Calculated Results	
Peak Cooling Total Load (Btu/h)	210,735.40
Peak Cooling Month and Hour	August 4:00 PM
Peak Cooling Sensible Load (Btu/h)	119,982.40
Peak Cooling Latent Load (Btu/h)	90,753.10
Maximum Cooling Capacity (Btu/h)	204,952.70
Peak Cooling Airflow (CFM)	4,522
Peak Heating Load (Btu/h)	68,282.80
Peak Heating Airflow (CFM)	1,450
Checksums	
Cooling Load Density (Btu/(h·ft <sup>2</sup> ))	50.7
Cooling Flow Density (CFM/SF)	1.09
Cooling Flow / Load (CFM/ton)	257.52
Cooling Area / Load (SF/ton)	236.68
Heating Load Density (Btu/(h·ft²))	16.43
Heating Flow Density (CFM/SF)	0.35

## Zone Summary - 1 - Reading Room

Inputs	
Area (SF)	1,624
Volume (CF)	14,748.47
Cooling Setpoint	74 °F
Heating Setpoint	70 °F
Supply Air Temperature	54 °F
Air Volume Calculation Type	VAV - Single Duct
Relative Humidity	46.00% (Calculated
Psychrometric Message	None
Calculated Results	
Peak Cooling Load (Btu/h)	44,012.10
Peak Cooling Month and Hour	June 4:00 PM
Peak Cooling Sensible Load (Btu/h)	30,090.80
Peak Cooling Latent Load (Btu/h)	13,921.40
Peak Cooling Airflow (CFM)	1,217
Peak Heating Load (Btu/h)	18,208.00
Peak Heating Airflow (CFM)	433
Checksums	
Cooling Load Density (Btu/(h·ft²))	27.1
Cooling Flow Density (CFM/SF)	0.75
Cooling Flow / Load (CFM/ton)	331.89
Cooling Area / Load (SF/ton)	442.73
Heating Load Density (Btu/(h·ft <sup>2</sup> ))	11.21
Heating Flow Density (CFM/SF)	0.27

## 1 - Reading Room Spaces

Space Name	Area (SF)	Volume (CF)	Peak Cooling Load (Btu/h)	Cooling Airflow (CFM)	Peak Heating Load (Btu/h)	Heating Airflow (CFM)
1 Space	856	7,832.42	13,991.70	579	2,881.90	113
3 Space	155	1,396.55	3,970.00	158	2,929.00	115
4 Space	120	1,079.34	2,282.80	91	902.6	35
5 Space	125	1,124.06	2,663.10	110	1,437.40	56
6 Space	32	286.61	659	27	370.4	15
7 Space	116	1,045.25	1,808.80	75	247.9	15
8 Space	67	600	1,428.20	59	859.2	34
14 Space	64	576.85	1,229.10	48	476.4	19
15 Space	51	462.11	1,205.30	45	673.1	26
16 Space	38	345.28	603.3	25	86	5

## Zone Summary - 2 - Assembly Room

Inputs	
Area (SF)	2
Volume (CF)	2
Cooling Setpoint	7
Heating Setpoint	7
Supply Air Temperature	ļ
Air Volume Calculation Type	١
Relative Humidity	ļ
Psychrometric Message	١
Calculated Results	
Peak Cooling Load (Btu/h)	1
Peak Cooling Month and Hour	J
Peak Cooling Sensible Load (Btu/h)	ç
Peak Cooling Latent Load (Btu/h)	7
Peak Cooling Airflow (CFM)	
Peak Heating Load (Btu/h)	ļ
Peak Heating Airflow (CFM)	-
Checksums	
Cooling Load Density (Btu/(h·ft²))	(
Cooling Flow Density (CFM/SF)	-
Cooling Flow / Load (CFM/ton)	2
Cooling Area / Load (SF/ton)	-
Heating Load Density (Btu/(h·ft <sup>2</sup> ))	
Heating Flow Density (CFM/SF)	(

## 2 - Assembly Room Spaces

Space Name	Area (SF)	Volume (CF)	Peak Cooling Load (Btu/h)	Cooling Airflow (CFM)	Peak Heating Load (Btu/h)	Heating Airflow (CFM)
2 Space	1,806	16,255.36	70,887.00	2,317	8,281.30	724
9 Space	95	856.97	3,636.90	119	207.3	38
10 Space	218	1,965.37	9,420.00	302	2,100.80	88
11 Space	210	1,890.99	9,265.10	297	2,195.00	86
12 Space	103	931.33	4,155.10	136	526.3	41
17 Space	50	450.25	2,053.80	67	402	20
18 Space	50	450.25	2,053.80	67	402	20

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AV - Single Duct
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une 4:00 PM
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		CONSTRUCTION PLAN A BLD-22-049185	SERVICES DIVISION APPROVAL 1 6/7/2022	
		THIS SET OF PLAN THE JOB A It is unlawful to alterations witho from the City of	IS MUST BE KEPT OF AT ALL TIMES o make changes or out written approva Tampa Construction	N I n
E	NGINEERED D	Service The Stamping of the held to permit or a ESIGN SERV REVIEWED FOR	s Division. this plan shall not be approve the violatic <b>SEES</b> codes CODE COMPLIANCE	e on
ENC 560 WE (813 WW	GINEERED DESI VILLAGE BLVD, ST PALM BEACH 3) 816-0301 /W.EDSENGINE	GN SERVICE SUITE 260 H, FL 33409 ERS.COM	SLLC	
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	Descri	ption		
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P	UMBING S	MBOLS LIST	
PIPING		VALVES	
WATER SERVICE DOMESTIC COLD WATER	W DCW	BACKFLOW PREVENTER BALANCING/SHUT-OFF VALVE WITH GAUGE TAPPINGS	BP W
DOMESTIC HOT WATER (XXX°F) TEMPERED WATER (XXX°F) DOMESTIC HOT WATER RETURN (XXX°F)	— DHW (XXX°F) — — TW (XXX°F) — — DHWR (XXX°F) —	BALL VALVE BUTTERFLY VALVE CHECK VALVE	
SANITARY INDIRECT WASTE PUMPED DISCHARGE VENT MEDICAL OXYGEN MEDICAL VACUUM EXISTING TO REMAIN EXISTING TO BE REMOVED	IND         PD         PD         O2         MV         (E)	GATE VALVE GLOBE VALVE PLUG VALVE PRESSURE REDUCING VALVE PRESSURE RELIEF VALVE SOLENOID VALVE STRAINER	
EXISTING TO BE ABANDONED FUTURE	(AB)	SPECIALTIES AND MIS	CELLANEOUS
FLOW ARROW UNDER FLOOR PIPING		<ul> <li>CAPPED PIPE</li> <li>PIPE SLEEVE</li> <li>FLEXIBLE CONNECTION</li> <li>GAUGE</li> <li>METER</li> <li>P-TRAP</li> <li>PIPE DROP</li> <li>PIPE RISE</li> <li>THERMOMETER</li> <li>THROUGH FLOOR AT LEVEL SHOWN</li> <li>UNION</li> <li>VENT THROUGH ROOF (VTR)</li> <li>CLEANOUT</li> <li>WALL HYDRANT (FREEZE PROOF)</li> <li>HOSE BIBB</li> <li>SHOCK ABSORBER</li> <li>FLOOR OR AREA DRAIN</li> <li>CONNECT TO EXISTING</li> <li>VALVE IN RISER/DROP</li> <li>HEAT TRACED PIPE</li> <li>DENOTES ITEM PROVIDED BY ANOTHER CONTRACTOR, SHOWN FOR COORDINATION OR REFERENCE</li> </ul>	

# PLUMBING FIXTURE SCHEDULE

		ROUGH-IN			
TAG	FIXTURE	WASTE	VENT	CW	HW
EWC	ELECTRIC WATER COOLER	2"	2"	1/2"	
FD	FLOOR DRAIN	3"			
GT	GREASE TRAP	3"	2"		
S-1	LAVATORY	2"	2"	1/2"	1/2"
S-2	ADA LAVATORY	2"	2"	1/2"	1/2"
S-3	KITCHEN SINK	2"	2"	1/2"	1/2"
S-4	MOP SINK	2"	2"	1/2"	1/2"
UR	URINAL, WALL HUNG	2"	2"	3/4"	
WC	WATER CLOSET	3"	2"	1"	

#### PLUMBING EQUIPMENT SPECS

BACKFLOW PREVENTER:	ZURN WILKINS, 975 XL	<u>PLU</u>
URINAL: FLUSH VALVE: SENSOR:	6590.001 – AMERICAN STANDARD 186-1-0 – SLOAN ZURN Z-ZERK-CPM - ELECTRIC SENSOR FLUSH VALVE. BATTERY POWERED	1. THE PLUMBING
WATER CLOSET, FLUSH VALVE: TOP SPUD: FLUSH VALVE:	2234.001.020 – AMERICAN STANDARD 110 XL – SLOAN	2. ALL REQUIREI 3. CHA
SENSOR:	ZURN Z-ZERK-CPM - ELECTRIC SENSOR FLUSH VALVE. BATTERY POWERED.	PROHIBIT
SEAT W/STAINLESS HARDWARE:	5901.100SS.020 – AMERICAN STANDARD	4. ARH CHARGES COMPANI
ADA WC, FLUSH VALVE: TOP SPUD: FLUSH VALVE: SENSOR:	3043.001.020 – AMERICAN STANDARD 110 XL – SLOAN ZURN Z-ZERK-CPM - ELECTRIC SENSOR FLUSH VALVE. BATTERY POWERED.	5. COO TRADES. 6. ALL
SEAT W/STAINLESS HARDWARE:	5901.100SS.020 – AMERICAN STANDARD	SLEEVED THROUGH
LAVATORY, WALL HUNG:	AMERICAN STANDARD 0355.027, 4" CENTER 0356.041, SINGLE HOLE	7. SEA
LAVATORY, FAUCET:	EQUAL TO HYDROTEK 5000EM SERIES ELECTRONIC LAVATORY FAUCET MODEL H-5000 EM-LR. SENSOR OPERATED, HARDWIRED AC, 120V, 0.5 GPM FLOW RESTRICTOR.	8. FIRE ENCLOSU BE PER M RATING O CONSIST
TMV:	ZURN - P6900-MV. SET TO 110 F. INSTALL UNDER LAVATORIES.	WO
LAVATORY, COUNTERTOP:	AMERICAN STANDARD 0476028.020, 4" CENTER 0475047.020, SINGLE HOLE	MIN
MOP SINK:	24X24X12 FIBERGLASS W/40" MIN. HGT. STAINLESS STEEL	9. PRC INSTALLA
FAUCET:	BACKSPLASH, EACH SIDE. B-0665B STR – T&S	FINISHED
ELECTRIC WATER COOLER, EWC:	HI/LOW, MODEL: VRCTL8SC – ELKAY	10. PITO FLOW AT
KITCHEN SINK:		PER FOO

CLEANOUT SCHEDULE REFER TO SPECIFICATION SECTION 22 13 00 "FACILITY SANITARY SEWERAGE" FOR FURTHER REQUIREMENTS			
ITEM	DESCRIPTION	ACCESORIES	
CO1	CLEANOUT TILE	ADJUSTABLE CAST IRON WITH THREADED BRONZE PLUG, NICKEL-BRONZE VANDAL-RESISTANT ROUND SCORIATED COVER, LINE SIZE	
wco	CLEANOUT WALL	COUNTERSUNK BRONZE PLUG AND VANDAL-RESISTANT POLISHED CHROME COVER	

3 CLEANOUT SCHEDULE 1" = 1'-0"

	DRAIN SCHEDULE REFER TO SPECIFICATION SECTION 22 13 00 "FACILITY SANITARY SEWERAGE" FOR FURTHER REQUIREMENTS				
	ITEM	DESCRIPTION	ACCESORIES		
	FD	FLOOR DRAIN MECHANICAL ROOM	CAST IRON BODY AND FLASHING CLAMP, DUCTILE IRON BUCKET AND GRATE, 8" DIA. GRATE, TRAP PRIMER TAP.		
4	DRAIN 1" = 1'-	SCHEDULE -0"			

SYSTEMS. METALS.

VALVES.

13. IN.

21. PROVIDE INSULATION AROUND DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPES, INCLUDING ANY RECIRCULATION LINES. 22. PROVIDE AIR CHAMBER AT ALL DROPS TO FIXTURES

23. COMPLY WITH ALL OSHA STANDARDS, INCLUDING "HOT WORK" STANDARDS. THIS WORK INCLUDES, BUT IS NOT LIMITED TO, WELDING, CUTTING, BRAZING, SOLDERING, ETC.

24. INFORMATION CONCERNING EXISTING SYSTEMS WAS OBTAINED PRIMARILY FROM EXISTING DRAWINGS FOR THE CONTRACTOR'S REFERENCE ONLY. ALL EXISTING INFORMATION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTORS.

25. CONTRACTOR TO FIELD VERIFY ALL EXISTING HOSE BIBS. EXISTING HOSE BIBS TO REMAIL.

#### PLUMBING GENERAL NOTES

THE SYSTEM DESIGN IS BASED ON THE FLORIDA BUILDING CODE -MBING, 7TH EDITION (2020)

ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AS UIRED BY LOCAL AND STATE CODES.

CHANGES IN DESIGN, SIZING OR LOCATION ARE EXPRESSLY HIBITED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.

ARRANGE AND PAY FOR PERMITS, INSPECTION FEES AND OTHER RGES RELATED TO PLUMBING WORK AND PAYABLE TO UTILITY MPANIES OR CODE ENFORCEMENT AGENCIES.

COORDINATE PIPING AND EQUIPMENT LOCATIONS WITH ALL OTHER

ALL NEW WALL PENETRATIONS OF MASONRY OR CONCRETE SHALL BE EVED. FILL VOID (ANNULUS) AROUND ALL PIPE PENETRATIONS OUGH WALLS WITH MINIMUM 5/8" THICKNESS OF SEALANT. FLUSH WITH H WALL SURFACES.

SEAL WATERTIGHT ALL PENETRATIONS THROUGH FLOORS.

FIRE STOP ALL PENETRATIONS OF FIRE RATED ASSEMBLIES AND LOSURES. ALL PENETRATIONS OF FIRE RATED CONSTRUCTION MUST PER MANUFACTURER'S DETAILS. THE DETAILS SHALL MEET OR EXCEED ING OF CONSTRUCTION BEING PENETRATED. FIRE STOP SYSTEM SHALL SIST OF THE FOLLOWING:

A. PACKING MATERIAL MINIMUM THICKNESS OF 4 PCF MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING.

B. SEALANT, HILTI ING FS - ONE SEALANT OR APPROVED EQUAL, MINIMUM 1/4" THICKNESS FLUSH W/ BOTH WALL SURFACES.

PROVIDE CUTTING AND PATCHING OF WALLS REQUIRED FOR THE ALLATION OF THE WORK. OPENINGS SHALL BE NEATLY DRILLED OR PATCH WORK SHALL MATCH THE EXISTING ADJACENT SURFACE AND SHED IN A MANNER ACCEPTABLE TO THE ARCHITECT.

PITCH SANITARY WASTE AND VENT PIPING IN THE DIRECTION OF W AT NO LESS THE 1/8" PER FOOT. PITCH PIPES 2" AND SMALLER AT 1/4" FOOT UNLESS NOTED OTHERWISE.

11. COORDINATE PIPING WITH BEAMS, JOISTS, WALLS, HVAC DUCTWORK, EQUIPMENT, WIRING AND CONDUIT.

12. PIPING LAYOUT IS SCHEMATIC; PROVIDE RISES, DROPS, OFFSETS ETC. AND ALL FITTINGS NECESSARY TO INSTALL PIPING.

COORDINATE PIPING WITH OTHER CONTRACTORS PRIOR TO ROUGH-

14. PLUMBING ITEMS INSTALLED ON THIS PROJECT SHALL BEAR THE LABEL OF AN APPROVED TESTING AGENCY AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY THAT ALL PARTS ARE PROPERLY FURNISHED AND INSTALLED, THAT ALL ITEM FUNCTION PROPERLY AND THAT ALL ADJUSTMENTS HAVE BEEN MADE.

15. ALL PLUMBING FIXTURES ARE TO BE INSTALLED WITH SHUT-OFF

16. INVERT ELEVATIONS (I.E.) BASED ON FINISHED FLOOR ELEVATION OF 100.00'. ALL INVERTS, STATED OR NOT, SHALL BE COORDINATED IN THE FIELD. VERIFY EXISTING INVERTS PRIOR TO STARTING WORK.

17. THOROUGHLY CLEAN ALL NEW PLUMBING FIXTURES PRIOR TO COMPLETION OF THE WORK.

18. PROVIDE COPPER TYPE-L FOR DOMESTIC WATER LINES.

19. PROVIDE SCHEDULE 40 DWV PRESSURE PIPE FOR SANITARY

20. PROVIDE ISOLATORS BETWEEN COPPER PIPING AND DISSIMILAR

SCOPE OF THIS PERMIT LIMITED TO CHILLER **INSTALLATION.** 

![](_page_9_Figure_38.jpeg)

![](_page_10_Figure_0.jpeg)

		CONSTRUCTION PLAN A LD-22-049185	SERVICES DIVISION APPROVAL 6/7/2022
		THIS SET OF PLAN THE JOB A It is unlawful to alterations with	IS MUST BE KEPT ON AT ALL TIMES o make changes or but written approval
		from the City of Service The Stamping of t	Fampa Construction s Division. this plan shall not be
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![](_page_11_Figure_0.jpeg)

	E	City o CONSTRUCTION PLAN A 3LD-22-0491851	f Tampa SERVICES DIVISION PPROVAL 6/7/2022	
		THIS SET OF PLAN THE JOB A It is unlawful to alterations witho	S MUST BE KEPT ON T ALL TIMES make changes or ut written approval	
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![](_page_12_Figure_0.jpeg)

<sup>1</sup> PLUMBING - SUPPLY ISO

SERVICE SIZE CALCULATIONS				
FIXTURE	QUANTITY	CWFU	HWFU	WFU
EWC	2	0.25	0	0.5
EWC-A	2	0.25	0	0.5
FD	8	0	0	
GT	1			
S-1	4	0.5	0.5	1
S-2	2	0.5	0.5	1
S-3	1	3	3	2
S-4	1	2.25	2.25	2
UR	1	5	0	4
WC-1	5	10	0	4

		CONSTRUCTION S PLAN AP	ERVICES DIVISIO	N
		BLD-22-0491851 THIS SET OF PLANS	6/7/202 MUST BE KEPT	2 0N
		THE JOB AT It is unlawful to r	ALL TIMES make changes o	or
		alterations withou from the City of Ta	t written appro mpa Construct	ion
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City of Tampa

<sup>2</sup> PLUMBING - SANITARY ISO

![](_page_13_Figure_0.jpeg)

![](_page_13_Picture_1.jpeg)

	SYMBOLS LIST FOR PLANS	
	<ol> <li>SOME SYMBOLS MAY NOT BE USED.</li> <li>MOUNTING HEIGHTS ARE TO TOP U.N.O.</li> </ol>	MOUNTING
SYMBOL	DESCRIPTION	HEIGHT UNLESS
a 	LED LIGHTING FIXTURE: TYPE "R1"; SEE LIGHTING FIXTURE SCHEDULE; WIRED TO SWITCH "a".	
T4 ; T4	TRACK LIGHTING FIXTURE: TYPE "T4"; SEE LIGHTING FIXTURE SCHEDULE; QUANTITY OF HEADS AS SHOWN	
<b>R2 W2 W2</b> ○;⊖;⊖	CEILING OR WALL MOUNTED LIGHTING FIXTURE TYPE "R2", "W2"; SEE LIGHTING FIXTURE SCHEDULE	SEE DRAWINGS
$\Diamond$	CEILING RECESSED WALL WASH LIGHTING FIXTURE	
	EXIT SIGN FIXTURE (WITH DIRECTIONAL ARROWS AS SHOWN) (TYPE AND MOUNTING AS NOTED; SEE LIGHTING FIXTURE SCHEDULE) SHADED AREA DENOTES FACE	94"
	LIGHTING FIXTURE ON EMERGENCY POWER; "NL" DENOTES NIGHT LIGHT	
; Ø	LIGHTING FIXTURE ON CRITICAL POWER	
P1 B1 ↓;   ; ●	SITE LIGHTING FIXTURE (TYPE AND MOUNTING AS NOTED; SEE LIGHTING FIXTURE SCHEDULE)	
s a	SINGLE POLE SWITCH; a = SWITCH "a"	40"
<b>S</b> 3;T;D	SPECIAL SWITCH: 3-WAY; TIMER SWITCH; DOOR SWITCH	40"
So	OCCUPANCY SENSOR; WALL MOUNTED LINE VOLTAGE	40"
<b>S</b> 2/0	OCCUPANCY SENSOR; WALL MOUNTED LINE VOLTAGE, DOUBLE POLE.	40"
CT	OCCUPANCY SENSOR, CEILING MOUNTED, DUAL TECHNOLOGY	
	DUPLEX RECEPTACLE ON CRITICAL POWER; QUADRUPLEX (DOUBLE DUPLEX) RECEPTACLE	20"
$\bigoplus_{i=1}^{n}$	DUPLEX RECEPTACLE	20"
	QUADRUPLEX (DOUBLE DUPLEX) RECEPTACLE	20" 20"
⊕ <sub>∏</sub> GF		401
⊕	SPECIAL PURPOSE RECEPTACLE (TYPE AS NOTED	48" SEE DRAWINGS
₩ <sup>0</sup> 0001 C	OR IN SPECIFICATIONS)	
↓ F	DUPLEX RECEPTACLE, FLOOR MOUNTED	
⊕ ⊂ F	VOICE/DATA OUTLET	
$\Phi$	SINGLE RECEPTACLE	20"
$(\mathbf{J};\mathbf{J}^{F})$	JUNCTION BOX, CEILING OR WALL MOUNTED; FLOOR MOUNTED	SEE DRAWINGS
M	MOTOR (BY DIVISION 1-23)	
⊠ 1/3 3R	MAGNETIC MOTOR STARTER (STARTER SIZE NO. OF POLES -AS NOTED) "3R" DENOTES NEMA "3R" ENCLOSURE	60"
□ S M	MANUAL MOTOR STARTER	60"
⊢ 60/45/3 ⊠ 3R, NF	SAFETY SWITCH (SWITCH SIZE, FUSE SIZE, NO. OF POLES -AS NOTED) "3R" DENOTES NEMA "3R" ENCLOSURE, "NF" DENOTES NONFUSED	60"
⊣ 1/25/3 3R	COMBINATION MOTOR STARTER (STARTER SIZE, FUSE SIZE, NO. OF POLES -AS NOTED) "3R" DENOTES NEMA "3R" ENCLOSURE	60"
	CONTROL DEVICE AS NOTED:( =  TO NTACTOR)	SEE DRAWINGS
		SEE DRAWINGS
	VARIABLE FREQUENCY DRIVE	40 SEE DRAWINGS
	VOICE/DATA TERMINAL BOARD	60"
P1	PANELBOARD: SURFACE MOUNTED, FLUSH MOUNTED	72"
	DISTRIBUTION PANELBOARD	72"
0	CONDUIT, RISER UP	
	CONDUIT, RISER DOWN	
	CONDUIT ROUTED UNDER FLOORSPACE OR UNDERGROUND	
<u></u>	FLEXIBLE METAL CONDUIT OR LIQUID-TIGHT FLEXIBLE METAL CONDUIT	
	PHOTOCELL	
HD	JUNCTION BOX FOR HANDICAP DOOR OPENER PUSHBUTTON	40"
MD	MOTION DETECTOR	

SYMBOI	S LIST FOR WIRING DIAGRAMS AND DETAILS
SYMBOL	DESCRIPTION
) 100/3	CIRCUIT BREAKER (SIZE AS NOTED)
	SPACE FOR DEVICE (SIZE AS NOTED)
GF	GROUND FAULT SENSOR/OPERATOR
M	UTILITY METER
Μ	ELECTRONIC METERING UNIT
	PANELBOARD
#6	GROUNDING ELECTRODE AND CONDUCTOR (CONDUCTOR SIZE AS NOTED)
1/25/3 3R, NF	COMBINATION MOTOR STARTER (STARTER SIZE, FUSE SIZE, NO. OF POLES -AS NOTED) "3R" DENOTES NEMA "3R" ENCLOSURE, "NF"=NONFUSED
1/25/3 3R, NF	MAGNETIC MOTOR STARTER (STARTER SIZE, FUSE SIZE, NO. OF POLES -AS NOTED) "3R" DENOTES NEMA "3R" ENCLOSURE, "NF"=NONFUSED
30/20/3 NF	SAFETY SWITCH (SWITCH SIZE, FUSE SIZE, NO. OF POLES AS NOTED) NF=NONFUSED
WP	WEATHERPROOF
CP	CONTROL PANEL (BY OTHERS)
VFD	VARIABLE FREQUENCY DRIVE
M	MOTOR
G	EMERGENCY GENERATOR
	AUTOMATIC TRANSFER SWITCH
	EQUIPMENT (AS NOTED)
	MV PRIMARY SWITCH
	POWER TRANSFORMER, DESIGNATION AS NOTED (SEE TRANSFORMER SCHEDULE)

SYMBOLS LIST NOTES:

1. STRAIGHT LINES BETWEEN DEVICES INDICATE SWITCHED CIRCUIT.

 STRAIGHT LINES BETWEEN DEVICES ON LIGHTING PLANS INDICATE SWITCHED CIRCUIT. ALL LIGHTING FIXTURES IN A ROOM OR CORRIDOR SHALL BE CONTROLLED VIA SWITCHES AND/OR OCCUPANCY SENSORS SHOWN UNLESS NOTED OTHERWISE.

## ELECTRICAL ABBREVIATIONS

ABBREVIATIONS USED ON DRAWINGS IN GENERAL ARE LISTED BELOW. REFER TO CSI DOCUMENT TD-2-4 DATED NOVEMBER 1986 FOR ANY ABBREVIATIONS LISTED ON THE DRAWINGS BUT ARE NOT LISTED BELOW.

А	AMPS
AC	
AFG	ABOVE FINISH FLOOR ABOVE FINISH GRADE
AHU	AIR HANDLER UNIT
BRKR	BREAKER
	CONDULI CABLE ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CUH	CABINET UNIT HEATER
CKT	CIRCUIT
Cu	COPPER
DISTR	DISTRIBUTION
EF	EXHAUST FAN
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EX	
F	EXPLOSION PROOF IT THE DEVICE
FAA	FIRE ALARM ANNUNCIATOR
FAP	FIRE ALARM PANEL
FC	FAN COIL UNIT
FIXT	LIGHT FIXTURE
FLUOR	FLUORESCENT
FLR	FLOOR
FS	
GRC	GALVANIZED RIGID CONDUIT
GF	GROUND FAULT INTERRUPTING PROTECTION
HID	
HP	HORSEPOWER
J	JUNCTION BOX
KEC	
KV KVA	
KW	KILOWATTS
LC	
MECH	MECHANICAL
MSB	MAIN SWITCHBOARD
MCC	
+N	INDICATES MOUNTING HEIGHT (N) TO BOTTOM OF
	DEVICE FROM FINISH FLOOR UNLESS OTHERWISE
	NOTED.
NIC	NGT IN CONTRACT
NTS	NOT TO SCALE
OC OR O/C	ON CENTER
OH	OVERHEAD POLE (PHASE)
PVC	POLYVINYL CHLORIDE
PE	PNEUMATIC/ELECTRIC
PNL	
Ø OR P RAF	RETURN AIR FAN
RTU	ROOFTOP UNIT
SW	
TEMR	TRANSFORMER
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VIF	VARIADLE FREQUENCI DRIVE
VC	VOLUME CONTROL
W	
۷۷۲ ۵/E701	WEATHERPROOF TYPE DEVICE MEANS DETAIL & DRAWING SHEET "E701"
IT	INFORMATION TECHNOLOGY

	E	City of 1 CONSTRUCTION SE PLAN APP 3LD-22-0491851	ampa RVICES DIVISION PROVAL 6/7/2022	
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### ELECTRICAL GENERAL NOTES

- 1. THE SYSTEM DESIGN IS BASED ON NEC 2017 AND THE FLORIDA BUILDING CODE, 7TH EDITION (2020)
- 2. COORDINATE EXACT LOCATIONS OF EQUIPMENT WITH ARCHITECTURAL DRAWINGS. VERIFY EXACT WIRING AND CONNECTION REQUIREMENTS WITH SUBMITTAL DOCUMENTS BEFORE INSTALLATION.
- 3. REFER TO ARCHITECTURAL ELEVATIONS FOR OUTLET MOUNTING HEIGHTS.
- 4. ALL CONDUITS IN AREAS WITHOUT SUSPENDED CEILINGS SHALL BE RUN INCONSPICUOUSLY AS POSSIBLE, HIDDEN BEHIND BEAMS, CLOSE TO DECK, ETC.
- 5. ALL DEVICES SHOWN ON THE EXTERIOR OF THE BUILDING SHALL BE WEATHERPROOF TYPE.
- 6. PROVIDE ALL FINAL POWER CONNECTIONS TO EQUIPMENT. PROVIDE ALL CONDUIT, DEVICE BOXES, AND CONTROL WIRING TO EQUIPMENT UNLESS NOTED OTHERWISE.
- 7. ALL EXTERNAL OUTLETS SHALL BE MOUNTED HORIZONTALLY.
- 8. ALL BRANCH CIRCUITS SHALL HAVE A SEPARATE NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR.

ENGINEERED DESI 560 VILLAGE BLVD, WEST PALM BEACH (813) 816-0301 WWW.EDSENGINE CONTACT@EDSEN	City of Tamp CONSTRUCTION SERVICE PLAN APPROV BLD-22-0491851 THIS SET OF PLANS MUST THE JOB AT ALL T It is unlawful to make of alterations without write from the City of Tampa of Services Division The Stamping of this plan held to permit or approve ESIGN SERVICES LLO SUITE 260 H, FL 33409 ERS.COM GINEERS.COM	a ES DIVISION AL D/7/2022 T BE KEPT ON IMES changes or ten approval construction on. r shall not be the violation Codes OMPLIANCE
CITY OF TAMPA, FL KID MASON COMMUNITY CENTER	ELECTRICAL POWER PLAN	
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LIGHT FIXTURE SCHEDULE							
TYPE	COUNT	MANUFACTURER	DESCRIPTION	VOLTS	WATTS		
A	24	WILLIAMS	LOW PROFILE LED 2X4 TROFFER	120	40		
В	31	WILLIAMS	LOW PROFILE LED 2X2 TROFFER	120	35		
С	12	WILLIAMS	6" RECESSED DOWNLIGHT	120	30		
D	2	WILLIAMS	LOW PROFILE LED 1X4 TROFFER	120	35		
EL	7	WILLIAMS	LED EMERGENCY LIGHTING	120	1.8		
EXIT	5	WILLIAMS	LED EXIT SIGN	120	5		

ELECTRICAL GENERAL NOTES

- 1. THE SYSTEM DESIGN IS BASED ON NEC 2017 AND THE FLORIDA BUILDING CODE, 7TH EDITION (2020)
- COORDINATE EXACT LOCATIONS OF EQUIPMENT 2. WITH ARCHITECTURAL DRAWINGS. VERIFY EXACT WIRING AND CONNECTION REQUIREMENTS WITH SUBMITTAL DOCUMENTS BEFORE INSTALLATION.
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- ALL DEVICES SHOWN ON THE EXTERIOR OF THE 5. BUILDING SHALL BE WEATHERPROOF TYPE.
- PROVIDE ALL FINAL POWER CONNECTIONS TO 6. EQUIPMENT. PROVIDE ALL CONDUIT, DEVICE BOXES, AND CONTROL WIRING TO EQUIPMENT UNLESS NOTED OTHERWISE.
- ALL EXTERNAL OUTLETS SHALL BE MOUNTED 7. HORIZONTALLY.
- 8. ALL BRANCH CIRCUITS SHALL HAVE A SEPARATE NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR.
- EXTERIOR LIGHTS SHALL BE CONTROLLED WITH AN 9. INTERMATIC 8000 SERIES 7 DAY ASTRONOMIC SCHEDULE PROGRAMMABLE TIMER.

![](_page_16_Picture_12.jpeg)

	Supply From: MDP Mounting: Surface Enclosure: Type 1				I	Phases: Wires:	3 4	-				Mains Type: Mains Rating: 400 A MCB Rating: 200 A
Notes:												
СКТ	Circuit Description	Trip	Poles		4		3	C	;	Poles	Trip	Circuit Description
1	Emergency Lighting	20 A	1	25 VA	192 VA					1	20 A	Lighting
3	Lighting	20 A	1			96 VA	288 VA			1	20 A	Lighting
5	Emergency Lighting	20 A	1					139 VA	300 VA	1	20 A	Lighting - Exterior
7	Lighting	20 A	1	360 VA	422 VA					1	20 A	Lighting
9	Receptacle Space 3	20 A	1			360 VA	480 VA			1	20 A	Water Coolers
11		20 A	1					372 VA	540 VA	1	20 A	Receptacle
13	Receptacle Room 1, 3	20 A	1	720 VA	950 VA					1	20 A	Hand Dryers
15	Ice Machine	20 A	1			1000	1080			1	20 A	Receptacle Space 1
17	AHU-1 Controls	20 A	1					750 VA	900 VA	1	20 A	Receptacle
19	Lighting	20 A	1	186 VA	950 VA					1	20 A	Hand Dryers
21	Receptacle	20 A	1			1440	1920			1	20 A	Dedicated Power - Communications/Data
23	Lighting	20 A	1					188 VA	950 VA	1	20 A	Hand Dryers
25	Water Heater	20 A	2	2250	6240					2	40 A	Electric Washer/Dryer
27						2250	0 VA					
29	Electric Range - 3.5 kW to 8.75 kW Space 1	50 A	2					8320	1000	1	20 A	Refrigerator
31				0 VA	1000					1	20 A	Kitchen Receptacle 1
33	Lighting	20 A	1			186 VA	950 VA			1	20 A	Hand Dryers
35									4860	3	45 A	AHU-1
37					4860							
39	Kitchen Receptacle 2	20 A	1			1000	4860					
41												
		Tota	al Load:	1772	9 VA	1550	7 VA	1827	2 VA			
		Tota	I Amps:	15	1 A	12	9 A	15	5 A			

**CKT** 2 4

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel	Totals
Electric Clothes Dryer	6240 VA	100.00%	6240 VA		
Electric Range - 3.5 kW to 8.75 kW	8320 VA	80.00%	6656 VA	Total Conn. Load:	51470 VA
Lighting - Dwelling Unit	64 VA	100.00%	64 VA	Total Est. Demand:	49882 V/
Lighting - Exterior	300 VA	125.00%	375 VA	Total Conn.:	143 A
Other	18380 VA	100.00%	18380 VA	Total Est. Demand:	138 A
Receptacle	5040 VA	100.00%	5040 VA		
Appliance	6217 VA	100.00%	6217 VA		
Notes:		•			

![](_page_17_Figure_2.jpeg)

Branch Panel: P-2 Location: Space 12					Volts:	120/208 3	Wye				A.I.C. F	Rating:	
Supply From: MDP Mounting: Surface Enclosure: Type 1					Phases: Wires:	3 4					Mains Mains F MCB F	Rating: 400 Rating: 175	
Notes:													
CKT Circuit Description	Trip	Polos		<b>N</b>		5		c	Polos	Trip		Circui	
1 Emergency Lighting	20 A	1	82 VA	<b>4</b> 224 VA		<b>&gt;</b>			1	20 A	Lighting -	Exterior	
3 Receptacle Space 11	20 A	1			180 VA	310 VA			1	20 A	Lighting		
5 Receptacle Space 11	20 A	1					180 VA	312 VA	1	20 A	Lighting		
7 Lighting 9 Lighting	20 A	1	188 VA	540 VA	440 VA	720 \/A			1	20 A	Receptac	le Room 11	
11 Water Coolers	20 A	1			440 VA	720 VA	480 VA	750 VA	1	20 A	AHU-2 Co	ontrol	
13 Lighting	20 A	1	768 VA	900 VA					1	20 A	Receptac	le Space 2	
15 Lighting	20 A	1			768 VA	950 VA	0.50.1/4	4000	1	20 A	Hand Dry	er	
17 Hand Dryer 19 Outdoor Receptacle	20 A	1	1920	1118			950 VA	1000	1	20 A	AHU-2	n	
21 Receptacle Room 10, 2	20 A	1	1020	1110	1440	1118							
23 Security Alarm	20 A	1					1000	1118					
25													
21 29													
31													
33													
35													
3/													
<u>- 39</u> 41									<u> </u>				
	To	tal Load:	1575	0 VA	1592	25 VA	1584	13 VA					
	Tot	al Amps:	131	1 A	13	3 A	13	2 A					
Legend:													
Load Classification	Со	nnected	Load	Den	nand Fa	ctor	Estin	nated De	emand			Pa	
Lighting - Dwelling Unit		64 VA			100.00%	)		64 VA					
Lighting - Exterior Other		224 VA 35459 V	A		125.00%	)		280 VA 35459 V	Δ		I Ota	al Conn. Lo Fst Dema	
Receptacle		3960 VA	۸. ۱		100.00%	)		3960 VA	λ			Total Co	
											Total	Est. Dema	
Notes: Branch Panel: MDP													
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface					Volts: Phases:	120/208	Wye				A.I.C. R Mains	Rating:	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes:					Volts: Phases: Wires:	120/208 3 4	Wye				A.I.C. R Mains Mains R MCB R	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes:					Volts: Phases: Wires:	120/208 3 4	Wye				A.I.C. F Mains Mains R MCB R	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes:		Dolor			Volts: Phases: Wires:	120/208 3 4	Wye		Dolor	<b>T</b> <i>uix</i>	A.I.C. F Mains Mains R MCB R	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT <u>Circuit Description</u> 1 Panel 1	      	Poles	1772	<b>A</b> 1575	Volts: Phases: Wires:	120/208 3 4	Wye		Poles		A.I.C. F Mains Mains F MCB F	Rating: Type: Rating: 600 Rating: 600	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         1         1         2         1         2	 Trip 200 A 	Poles 3 		A 1575	Volts: Phases: Wires:	120/208 3 4 <b>3</b>	s Wye		Poles 3 	<b>Trip</b> 175 A 	A.I.C. F Mains Mains F MCB F Panel 2 	Rating: Type: Rating: 600 Rating: 600	
Notes:          Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         CKT         Circuit Description         1         Panel 1         3         5         7	Trip 200 A  	Poles 3 2	1772	A 1575	Volts: Phases: Wires:	120/208 3 4 <b>3</b>	Wye 1827	C 1584	Poles 3  	<b>Trip</b> 175 A  	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         Circuit Description         1       Panel 1         3          5          7       Chiller         9	Trip 200 A  200 A	Poles 3 3 3	1772 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 <b>3</b>	Wye 1827	C 1584	Poles 3	<b>Trip</b> 175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11	Trip 200 A  200 A  200 A 	Poles 3 3	1772 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 <b>3</b>	Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F	Rating: Type: Rating: 600 Rating: 600	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting:         Surface         Enclosure:         Type 1         Notes:         CKT         Circuit Description         1         Panel 1         3            5            7         Chiller         9         11            11         13         14	Trip 200 A  200 A  200 A	Poles 3 3	1772 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592	Wye Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17	Trip 200 A  200 A  200 A	Poles 3 3	1772 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592	Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F MCB F	Rating: Type: Rating: 600 Rating: 600	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         Circuit Description         1         Panel 1         3         5            7         Chiller         9            11            13         15         17         19	Trip 200 A  200 A  200 A  200 A	Poles 3 3 3	1772 1801 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 3 1592	Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17 19 21	Trip 200 A  200 A  200 A 	Poles 3 3	1772 1801 1801	A 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592	Wye Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F Panel 2   	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17 19 21 23	Trip 200 A  200 A  200 A  	Poles 3 3 3	1772 1801 1801	A 1575 	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592	Wye Wye 1827 1801	C 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F MCB F	Rating: Type: Rating: 60( Rating: 60(	
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Notes:          Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT       Circuit Description         1       Panel 1         3          5          7       Chiller         9          11          13          15          17          18          19          21          23          27          29	Trip 200 A  200 A  200 A  	Poles 3 3	1772 1801 1801	A 1575 	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592	Wye Wye 1827 1801	C 1584 1584	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F Panel 2 	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17 19 21 23 25 27 29 31	Trip 200 A  200 A  200 A   200 A  	Poles 3 3	1772 1801 1801 1801	A 1575 1575	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592 1592	Wye Wye 1827 1801	C 1584 1584	Poles 3	Trip 175 A  175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17 19 21 23 25 27 29 31 33 25	Trip 200 A  200 A  200 A  200 A  	Poles 3 3		A 1575 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592 1592	Wye Wye 1827 1801	C 1584 1584	Poles 3	Trip 175 A  175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 60( Rating: 60(	
Notes:           Branch Panel: MDP           Location:           Supply From:           Mounting: Surface           Enclosure: Type 1           Notes:           CKT           Circuit Description           1           Panel 1           3           5              7           Chiller           9           11           13           15           17           19           21           23           25           27           23           25           27           23           33           33           35           37	Trip 200 A  200 A  200 A   200 A  	Poles 3 3 3		A 1575 	Volts: Phases: Wires: 1550 1801	120/208 3 4 1592 1592	Wye Wye 1827 1801 1801	C 1584 1584 10000000000000000000000000000000000	Poles 3	Trip 175 A 	A.I.C. F Mains Mains F MCB F Panel 2   	Rating: Type: Rating: 60( Rating: 60(	
Notes:          Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         Circuit Description         1         Panel 1         3         5            7         Chiller         9         11            7         Chiller         9            13         15         17         19         21         23         25         27         33         33         33         35         37         39	Trip 200 A  200 A  200 A  200 A   200 A   200 A  	Poles 3 3 3			Volts: Phases: Wires: 1550 1801 1801	120/208 3 4 1592 1592	Wye Wye 1827 1801 1801		Poles 3	Trip 175 A  175 A 	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600 Circu	
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Notes: Branch Panel: MDP Location: Supply From: Mounting: Surface Enclosure: Type 1 Notes: CKT Circuit Description 1 Panel 1 3 5 7 Chiller 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41	Trip 200 A  200 A  200 A  200 A   200 A          -	Poles 3 3 3	1772 1801 1801 4951 415	A 1575 1575 1575 1575 1575	Volts: Phases: Wires: 1550 1801 1801 4751 39	120/208 3 4 1592 9 VA 6 A	Wye Wye 1827 1801 1801 4980 4980 41	C 1584 1584 10000000000000000000000000000000000	Poles 3	Trip 175 A  175 A  	A.I.C. F Mains Mains F MCB F Panel 2  	Rating: Type: Rating: 600 Rating: 600	
Notes:          Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT       Circuit Description         1       Panel 1         3          5          7       Chiller         9          11          13          15          7       Chiller         9          11          13          14          15          17          13          14          15          17          13          14          15          16          17          18          29          31          32          33          341 <tr< td=""><td>Trip 200 A  200 A  200 A  200 A   200 A          -</td><td>Poles 3 3 3</td><td>1772 1801 1801 4951 415</td><td>A 1575 1575 1575 1575 1575</td><td>Volts: Phases: Wires: 1550 1801 1801 4751 39</td><td>120/208 3 4 1592 9 VA 6 A</td><td>Wye Wye 1827 1801 1801 4980 41</td><td>C 1584 1584 1284 1000 1000 1000 1000 1000 1000 1000</td><td>Poles 3</td><td>Trip 175 A  175 A  </td><td>A.I.C. F Mains Mains F MCB F Panel 2     </td><td>Rating: Type: Rating: 600 Rating: 600</td></tr<>	Trip 200 A  200 A  200 A  200 A   200 A          -	Poles 3 3 3	1772 1801 1801 4951 415	A 1575 1575 1575 1575 1575	Volts: Phases: Wires: 1550 1801 1801 4751 39	120/208 3 4 1592 9 VA 6 A	Wye Wye 1827 1801 1801 4980 41	C 1584 1584 1284 1000 1000 1000 1000 1000 1000 1000	Poles 3	Trip 175 A  175 A  	A.I.C. F Mains Mains F MCB F Panel 2     	Rating: Type: Rating: 600 Rating: 600	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         Circuit Description         1       Panel 1         3       -         5       -         7       Chiller         9       -         11       -         13       -         15       -         17       -         18       -         19       -         21       -         23       -         25       -         27       -         28       -         31       -         33       -         33       -         33       -         341       -	Trip 200 A  200 A  200 A  200 A   200 A          -	Poles 3 3 3 3	1772 1801 1801 4951 415 415	A 1575 1575 7 VA 5 A	Volts: Phases: Wires: Wires: 1550 1801 1801 4751 39	120/208 3 4 1592 9 VA 6 A	Wye Wye 1827 1801 1801 4980 41	C 1584 1584 2 2 2 2 2 2 2 2 2 2 2 2 2	Poles 3	Trip 175 A  175 A  	A.I.C. F Mains Mains F MCB F Panel 2  	Rating:         Type:         Rating:       600         Rating:       600         Circu	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT       Circuit Description         1       Panel 1       3         3        5         7       Chiller       9         9           71       Chiller          9            11            13            14            15            16             17              19 </td <td>Trip 200 A  200 A  200 A  200 A   200 A          -</td> <td>Poles 3  3  3  3  3  4  3  5  4        -</td> <td>Image: Control of the second state of the second state</td> <td>A 1575 1575 5 A</td> <td>Volts: Phases: Wires: 1550 1801 1801 39 4751 39</td> <td>120/208 3 4 1592 9 VA 6 A</td> <td>Wye Wye 1827 1801 1801 4980 4980 41</td> <td>C 1584 1584 22 VA 8 A 24039 V 6240 V 6656 V 6240 V</td> <td>Poles 3</td> <td>Trip 175 A  175 A  175 A  1 175 A </td> <td>A.I.C. F Mains Mains F MCB F Panel 2   </td> <td>Rating: Type: Rating: 60( Rating: 60( Circu</td>	Trip 200 A  200 A  200 A  200 A   200 A          -	Poles 3  3  3  3  3  4  3  5  4        -	Image: Control of the second state	A 1575 1575 5 A	Volts: Phases: Wires: 1550 1801 1801 39 4751 39	120/208 3 4 1592 9 VA 6 A	Wye Wye 1827 1801 1801 4980 4980 41	C 1584 1584 22 VA 8 A 24039 V 6240 V 6656 V 6240 V	Poles 3	Trip 175 A  175 A  175 A  1 175 A 	A.I.C. F Mains Mains F MCB F Panel 2   	Rating: Type: Rating: 60( Rating: 60( Circu	
Notes:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Notes:         CKT         Circuit Description         1       Panel 1         3          5          7       Chiller         9          11       -         13          14       -         15       -         17       -         18       -         29       -         21       -         23       -         24       -         23       -         24       -         25       -         27       -         29       -         31       -         32       -         33       -         33       -         33       -         33       -         341       -	Trip 200 A  200 A  200 A  200 A   200 A          -	Poles 3 3  3  3  3  5 3  4  4	Image: Control of the second state	A 1575 1575 1575 1575 1575 1000	Volts: Phases: Wires: Wires: 1550 1801 1801 1801 39	120/208 3 4 1592 9 VA 6 A	Wye Wye 1827 1801 1801 4980 41	C 1584 1597 1584	Poles 3	Trip 175 A  175 A   	A.I.C. F Mains Mains F MCB F MCB F	Rating: Type: Rating: 600 Rating: 600 Circu	
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Idees:         Branch Panel: MDP         Location:         Supply From:         Mounting: Surface         Enclosure: Type 1         Idees:         Circuit Description         1       Panel 1         3          5          7       Chiller         9          11          13          15          17          18          19          23          24          25          27          28          31          32          33          34          35          37          39          41          Electric Clothes Dryer         Electric Clothes Dryer         Electric Clothes Dryer <td cols<="" td=""><td>Trip 200 A  200 A  200 A  200 A   200 A    200 A          -</td><td>Poles 3</td><td>Image: Amage: Amage:</td><td>A 1575 1575 2 3 4 1575 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4</td><td>Volts: Phases: Wires: Wires: 1550 1801 1801 1801 1801 100.00% 100.00%</td><td>120/208 3 4 1592 9 VA 6 A</td><td>Wye Wye</td><td>C 1584</td><td>Poles 3            </td><td></td><td>A.I.C. F Mains Mains F MCB F Panel 2             </td><td>Rating: Type: Rating: 600 Rating: 600 Circu</td></td>	<td>Trip 200 A  200 A  200 A  200 A   200 A    200 A          -</td> <td>Poles 3</td> <td>Image: Amage: Amage:</td> <td>A 1575 1575 2 3 4 1575 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4</td> <td>Volts: Phases: Wires: Wires: 1550 1801 1801 1801 1801 100.00% 100.00%</td> <td>120/208 3 4 1592 9 VA 6 A</td> <td>Wye Wye</td> <td>C 1584</td> <td>Poles 3            </td> <td></td> <td>A.I.C. F Mains Mains F MCB F Panel 2             </td> <td>Rating: Type: Rating: 600 Rating: 600 Circu</td>	Trip 200 A  200 A  200 A  200 A   200 A    200 A          -	Poles 3	Image: Amage:	A 1575 1575 2 3 4 1575 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4	Volts: Phases: Wires: Wires: 1550 1801 1801 1801 1801 100.00% 100.00%	120/208 3 4 1592 9 VA 6 A	Wye Wye	C 1584	Poles 3            		A.I.C. F Mains Mains F MCB F Panel 2             	Rating: Type: Rating: 600 Rating: 600 Circu

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_	City of Tampa CONSTRUCTION SERVICES DIVISION PLAN APPROVAL
	THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES It is unlawful to make changes or alterations without written approval
	from the City of Tampa Construction Services Division. The Stamping of this plan shall not be held to permit or approve the violation
ENGINEERED DESIC 560 VILLAGE BLVD, WEST PALM BEACH (813) 816-0301 WWW.EDSENGINEE CONTACT@EDSENC	SIGN SERVICES codes REVIEWED FOR CODE COMPLIANCE GN SERVICES LLC SUITE 260 I, FL 33409 ERS.COM GINEERS.COM
CITY OF TAMPA, FL KID MASON COMMUNITY CENTER	ELECTRICAL PANEL AND RISER DIAGRAM
DE SEAL	McKenne NSKONTHING 0796 TO ALENGININ
No. Descrip	otion Date
Project number Date Drawn by Checked by	20-110 8/26/21 CAM  1_3
Scale	1/2" = 1'-0"

	SYMBOLS LIST FOR PLANS	
	1. SOME SYMBOLS MAY NOT BE USED.	
	2. MOUNTING HEIGHTS ARE TO TOP U.N.O.	MOUNTING
SYMBOL	DESCRIPTION	HEIGHT UNLESS NOTED OTHERWISE
	FIRE ALARM MANUAL PULL STATION	48"
$\square \triangleleft$	FIRE ALARM AUDIBLE DEVICE	REFER TO ARCHITECTURAL
	FIRE ALARM VISUAL DEVICE	ELEVATIONS REFER TO ARCHITECTURAL ELEVATIONS
	COMBINATION FIRE ALARM AUDIBLE AND VISUAL DEVICE. WP: WEATHERPROOF.	REFER TO ARCHITECTURAL ELEVATIONS
(S); (S)	CEILING MOUNTED FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR, HEAT DETECTOR	
(S)-×	DUCT MOUNTED FIRE ALARM PHOTOELECTRIC SMOKE DETECTO	R
S	CEILING MOUNTED FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR; WITH SOUNDER BASE	
IM	FIRE ALARM ISOLATION MODULE DEVICE	
DH	FIRE ALARM MAGNETIC DOOR HOLDER	72"
FR	FIRE ALARM RELAY	
FL	FIRE ALARM FLOW SWITCH	
$\bigtriangledown$	4 PORT (3 CAT 6) DATA AND VOICE OUTLET F: FLOOR MOUNTED OUTLET	22"
AP	CEILING MOUNTED ACCESS POINT (BY OTHERS)	
S	CEILING MOUNTED PAGING/MUZAK SPEAKER	
H	WALL MOUNTED PAGING/MUZAK HORN	84"
V	VOLUME CONTROL	60"
TV	TELEVISION OUTLET	22"
Р	DOOR POSITION SWITCH	
DL	DELAYED EGRESS MAGNETIC LOCK	
CR	ACCESS CONTROL CARD READER	60"
RE	ACCESS CONTROL REQUEST TO EXIT DEVICE	
PS	ACCESS CONTROL POWER SUPPLY	
HD	JUNCTION BOX FOR HANDICAP DOOR OPENER PUSHBUTTON	40"
IC D	AUDIO/VIDEO DOOR INTERCOM STATION	60"
IC	AUDIO/VIDEO MASTER INTERCOM STATION	
К	PATIENT WANDERING SYSTEM DOOR KEYPAD	40"
DV	DVD OUTLET (JUNCTION BOX ONLY WITH COVER PLATE)	22"
Μ	ELECTROMAGNETIC DOOR LOCK	
A	PATIENT WONDERING SYSTEM ANTENNA	48"
C	IP CCTV CAMERA	108"
MD	MOTION DETECTOR	

#### GENERAL NOTES

- 1. REFER TO DRAWINGS AND SPECIFICATIONS OF OTHER CONSTRUCTION TRADES FOR ADDITIONAL ELECTRICAL WORK INCLUDED IN THE DIVISION 26, 27 AND 28 CONTRACT.
- 2. COORDINATE EXACT LOCATIONS OF EQUIPMENT WITH DIVISIONS 1-23 DRAWINGS. VERIFY EXACT WIRING AND CONNECTION REQUIREMENTS WITH SUBMITTAL DOCUMENTS BEFORE INSTALLATION. ALL ELECTRICAL WORK SHOWN HERE MUST BE VERIFIED AND COORDINATED IN FIELD BEFORE INSTALLATION.
- 3. REFER TO ARCHITECTURAL ELEVATIONS FOR OUTLET MOUNTING HEIGHTS.
- 4. COORDINATE LOCATION AND ELEVATION OF CABLE TRAY WITH DIVISION 20, 21, 22 AND 23 CONTRACTORS. CABLE TRAY SHOULD BE LOCATED BELOW DIVISION 20, 21, 22 AND 23 EQUIPMENT, DIRECTLY ABOVE CEILING GRID. DO NOT LOCATE CABLE TRAY OVER TOP OF LIGHTING FIXTURES.
- ALL CONDUITS IN AREAS WITHOUT SUSPENDED CEILINGS SHALL BE RUN INCONSPICUOUSLY AS POSSIBLE, HIDDEN BEHIND BEAMS, CLOSE TO DECK, ETC. OBTAIN APPROVAL OF CONDUIT RUNS BELOW BEAMS WITH OWNER'S REPRESENTATIVE.
- 6. REFER TO ARCHITECTURAL DOOR SCHEDULES, AND DOOR HARDWARE SPECIFICATION FOR ELECTRICAL DEVICES INSTALLED AT DOORS.
- PROVIDE ALL FINAL POWER CONNECTIONS TO EQUIPMENT. PROVIDE ALL CONDUIT, DEVICE BOXES, AND CONTROL WIRING TO EQUIPMENT, UNLESS NOTED OTHERWISE.

#### LOW VOLTAGE NOTES:

CONTRACTOR MUST ALLOW THE CITY OF TAMPA AND/OR ITS DATA SUB-CONTRACTOR TO INSTALL WIRING AND FACEPLATES ON THE LOW VOLTAG SYSTEM PRIOR TO OBTAINING CERTIFICATE OF OCCUPANCY. CONTRACTOR MUST PROVIDE A TWO WEEK NOTICE FOR THE CITY TO ARRANGE AND COORDINATE THE LOW VOLTAGE INSTALLATION.

<u>DATA</u> INSTALL LV BOX AND MIN. 3/4" CONDUIT + PULL STRING FROM LOCATION TO ELEC. PANEL ROOM (\* DATA \*)

PHONE INSTALL LV BOX AND MIN. 3/4" CONDUIT + PULL STRING FROM LOCATION TO ELEC. PANEL ROOM (\* PHONE \*)

INSTALL LV BOX AND MIN. 3/4" CONDUIT + PULL STRING FROM LOCATION TO ELEC. PANEL ROOM (\* TV \*)

INSTALL LV BOX AND MIN. 3/4" CONDUIT + PULL STRING FROM LOCATION IN CEILING TO ELEC. PANEL ROOM (\* AP \*) REUSE EXISTING ACCESS POINTS. ALSO INSTALL 120V OUTLET IN CEILING TO PLUG IN WIRELESS ACCESS POINTS.

INSTALL MIN. 3/4" CONDUIT + PULL STRING FROM LOCATION TO ELEC. PANEL ROOM (\* MIR \*) FOR USE BY THE MIR CONTROL SYSTEM. (SEE IRRIGATION WIRING PLAN & DETAILS)

![](_page_18_Figure_16.jpeg)