SCOPE OF WORK

PROVIDE TWO NEW 4 TON AIR HANDLING UNIT & HEAT PUMP CONDENSING UNIT WITH SUPPLEMENTARY HEATING. PROVIDE NEW DUCTWORK AS SHOWN. PROVIDE NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.

PROVIDE 1 NEW BATHROOM EXHAUST FAN & 1 NEW OUTSIDE AIR FAN.

COORDINATE WITH GC ANY ADDITIONAL REFRIGERATION WORK REQUIRED AND WITH GC AND PLUMBING CONTRACTOR PROVIDING CONDENSATE LINES FOR MECHANICAL EQUIPMENT.

MECHANICAL PLAN NOTES

A. USE TWO NEW 4 TON AIR HANDLING UNIT & HEAT PUMP CONDENSING UNIT WITH SUPPLEMENTARY HEATING. PROVIDE NEW DUCTWORK AS SHOWN. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN AIR DUCT CONNECTIONS. TRANSITION TO DUCT SIZES SHOWN. PROVIDE DUCTWORK AND AIR DISTRIBUTION DEVICES AS INDICATED ON THE PLAN. REFER TO A/C UNIT SCHEDULE FOR ADDITIONAL REQUIREMENTS.

B. FOR SYSTEM OVER 2,000 CFM CHECK FOR DUCT MOUNTED AIR SMOKE DETECTORS AND THAT MEET THE REQUIREMENTS OF U.L. 268A, INTERLOCKED TO SHUTDOWN A/C UNIT UPON DETECTION OF SMOKE. IF NECESSARY PROVIDE SMOKE DETECTOR WITH AN ANNUNCIATOR, ALARM AND POWER L.E.D.'S FOR VISIBLE AND AUDIBLE ALARM SIGNAL, AND VISIBLE TROUBLE SIGNAL. MOUNT ANNUNCIATOR ON ROOM SIDE OF CEILING.

C. ALL DUCTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARD AND 2021 UNIFORM MECHANICAL CODE (2021 UMC), SECTION 602. THE MORE STRINGENT REQUIREMENT OF ANY CODES SHALL APPLY.

D. ALL RECTANGULAR OR ROUND SUPPLY AND RETURN DUCTWORK SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181 AND INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTING, THE MANUFACTURER'S INSTRUCTION AND CONTRACTOR TO PROVIDE NECESSARY TEST CERTIFICATE TO INSPECTOR CONFORMING THE MATERIAL STANDARDS AS SPECIFIED ON 2021 UMC SECTION 602.4. FACTORY-MADE AIR DUCTS SHALL BE INSTALLED WITH NOT LESS THAN 4 INCHES OF SEPARATION FROM EARTH, EXCEPT WHERE INSTALLED AS A LINER INSIDE OF CONCRETE, TILE OR METAL PIPE AND SHALL BE PROTECTED FROM PHYSICAL DAMAGE.

E. FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOW OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE.

F. THERMOSTAT & HUMIDISTAT SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT & H-STAT 48" A.F.F. COORDINATE LOCATION OF THERMOSTAT & H-STAT WITH ARCHITECT.

G. ALL INTERIOR AIR DUCTS WITH INSULATION SHALL HAVE A MINIMUM OF THICKNESS OF 1.5", R-6 INSULATION. EXTERIOR AIR DUCTS TO HAVE R-8 INSULATION ACCORDING TO 2021 INTERNATIONAL ENERGY CONSERVATION CODE.

H. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/BARRIERS/SLABS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS.

I. ALL SEAMS, JOINTS, ETC WILL BE SEALED TO MAKE AIR DUCT AIRTIGHT. PRESSURE SENSITIVE MATERIALS AND OTHERS APPROVED BY LATEST SMACNA. SEALING MATERIALS WILL BE USED.

J. ALL EVAPORATOR UNITS SHALL HAVE A FLOAT SWITCH TO CONTROL OVERFLOW THAT WILL AUTOMATICALLY SHUT DOWN THE RTU SYSTEM. THE DEVICE SHALL BE ATTACHED TO THE SECONDARY DRAIN OUTLET ON THE UNIT.

K. ALL AHU'S CONDENSATE DRAINS WILL BE PVC FULL DIAMETER OF OUTLET AND WILL TERMINATE IN THE NEAREST APPROVED PLACE OF DISPOSAL.

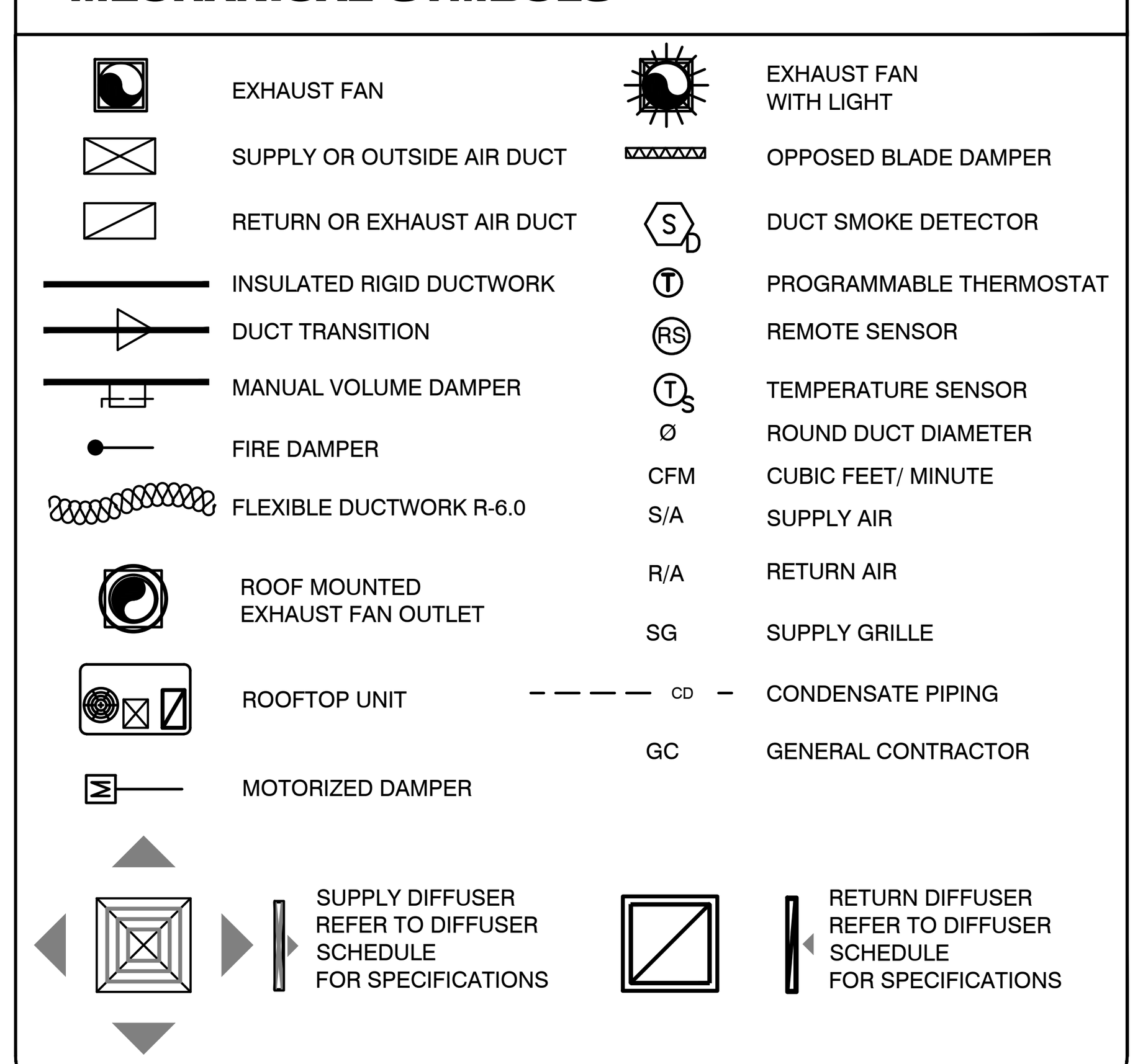
L. ALL EQUIPMENT AND MATERIALS WILL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.

M. TESTING AND BALANCING SHALL BE DONE IN ACCORDANCE WITH 2021 IECC, SECTION C408.2.2. BALANCING PROCEDURES SHALL BE IN ACCORDANCE WITH THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (N.E.B.B.), THE ASSOCIATED AIR BALANCE COUNCIL (A.A.B.C) NATIONAL STANDARDS OR EQUIVALENT PROCEDURES.

N. HANGER ATTACHMENTS TO THE STEEL STRUCTURE WILL BE RATED POWDER ACTUATED FASTENERS, "C" CLAMPS, WELDED STUDS, CLAMP HANGERS, JOIST CLAMPS OR OTHER METHODS RECOMMENDED BY SMACNA'S "METAL AND FLEXIBLE STANDARDS", CHAPTER 4, AND WILL HAVE A MINIMUM SAFETY MARGIN OF 4:1. SUSPENDED FROM TOP CHORD OF JOISTS, NOTHING FROM DECK OR CROSS BRACING.

O. ALL HVAC CONTROLS AND CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.

MECHANICAL SYMBOLS



NOTE: THIS PROJECT MAY NOT USE EVERY SYMBOL OR DEVICE APPEARING ON THIS LEGEND.

GENERAL NOTES

A. CONTRACTORS AND SUB-CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET. PAY SPECIAL ATTENTION TO THE RESPONSIBILITY SCHEDULE. WORK DESIGNATED ON SCHEDULE SHALL BE CONSIDERED INCLUDED IN YOUR SCOPE OF WORK AND CONTRACT AMOUNT.

B. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.

C. DRAWINGS/DETAILS ARE TO BE CONSIDERED DIAGRAMMATIC, NOT NECESSARILY SHOWING IN DETAIL OR TO SCALE ALL MINOR ITEMS. UNLESS SPECIFIC DIMENSIONS ARE SHOWN, THE STRUCTURAL, ARCHITECTURAL AND SITE CONDITIONS SHALL GOVERN EXACT LOCATIONS. CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK, AND CHECK/COORDINATE DRAWINGS OF ALL TRADES.

D. COORDINATE WITH THE WORK OF OTHERS SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DRIPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.

E. DRAWINGS FOR HVAC WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

F. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY. PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.

G. USE OF COMBUSTIBLE MATERIALS IS NOT ALLOWED IN THE RETURN AIR PLENUM. MATERIALS USED IN THE PLENUM SHALL HAVE FLAME SPREAD RATING NOT TO EXCEED 25, AND SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84. ALL EXPOSED WIRING IN THE PLENUM SHALL BE PLENUM RATED.

H. VERIFY LOCATION OF PERMISSIBLE NEW STRUCTURAL ROOF PENETRATIONS AND ADAPT THE REQUIRED DUCTS ACCORDINGLY. THE OPENINGS MUST BE LOCATED USING A REBAR LOCATOR, TRYING TO LEAVE A TRANSVERSE BAR WITHIN 4" FROM THE OPENING. LOCATE OPENINGS AT MID-DISTANCE BETWEEN THE STEMS OF THE DOUBLE TEE AND LONGITUDINAL REINFORCEMENT SHALL NEVER BE CUT. CALL THE ARCHITECT'S OFFICE IN CASE OF UNEXPECTED DIFFICULTIES.

I. ALL A/C AND FRESH AIR ROUND EXPOSED DUCTS WILL BE SPIRAL GALVANIZED AND READY FOR PAINTING. ALL EXPOSED DUCT ARE INTERNALLY INSULATED AND ALL RECTANGULAR DUCTS OVER CEILINGS ARE EXTERNALLY INSULATED.

J. G.C. SHALL CONTRACT LANDLORD-APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.

K. IF APPLICABLE CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR KITCHEN VENTILATION SYSTEM INCLUDING TYPE 1 HOOD AND FOR THE WALK-IN COOLER & FREEZER.

L. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.

M. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE AND PROVIDE COPY TO LL.

N. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.

CITY OF AUSTIN, TEXAS BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2021 IBC AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

1. THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.
2. SMOKE DETECTOR SHALL MEET UL268A.
3. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
   A. DUCT CONSTRUCTION AND INSTALLATION- 2021 UMC 602 & 603
   B. AIR INTAKES, EXHAUSTS AND RELIEF - 2021 UMC 402.1
4. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
5. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2021 UMC 402.1.
6. A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2021 UMC 402.1
7. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
8. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
9. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
10. VENTILATION SYSTEMS SHALL BE BALANCED TO MAINTAIN THE MINIMUM VENTILATION AIRFLOW RATE AS SHOWN IN VENTILATION REQUIREMENT TABLE. THIS SYSTEM SHALL BE BALANCED BY APPROVED METHOD. CONTRACTOR TO SUBMIT THE AIR - BALANCE REPORT TO INSPECTOR OF RESPECTIVE BUILDING DEPARTMENT PRIOR TO FINAL INSPECTION.

LANDLORD NOTES

1. CONTRACTOR TO MAKE SURE THAT RESTRICTIONS ON CONSTRUCTION HOURS AND CONDUCTING CERTAIN CONSTRUCTION ACTIVITIES SHOULD BE COORDINATED WITH THE LANDLORD AND INCLUDED IN CONTRACT DOCUMENTS OR AS INSTRUCTIONS TO BIDDERS. COORDINATE REQUIREMENTS WITH THE LANDLORD AND THE ARCHITECT.
2. CONTRACTOR TO PROVIDE REFERENCE ON DRAWINGS FOR INSTALLATION TO CONFORM TO SHELL BUILDING STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL MAINTAIN ON SITE SET OF AS-BUILT DRAWINGS, WHICH SHALL BE PROVIDED IN BOTH CAD AND PDF FORMAT, IN ADDITION TO HARD-COPIES UPON PROJECT COMPLETION.
4. CONTRACTOR TO VERIFY COMPLIANCE WITH LEED TENANT REQUIREMENTS.
5. ALL ROOF WORK SHALL BE PERFORMED BY BUILDING ROOF CONTRACTOR AS TO MAINTAIN ROOF WARRANTY. ADD REFERENCES TO PERFORM ALL WORK IN ACCORDANCE WITH BUILDING ROOF CONTRACTOR REQUIREMENTS. MATCH EXISTING ROOF INSTALLATIONS.
6. IF THE DEMISING WALLS ARE RATED, THEN ADDITIONAL DAMPERS ARE REQUIRED. CONFIRM RATING REQUIREMENTS AT WALLS BETWEEN TENANTS.

THERMOSTATIC CONTROLS

A. C403.4.1 THERMOSTATIC CONTROLS

THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE CONTROLLED BY INDIVIDUAL THERMOSTATIC CONTROLS CAPABLE OF RESPONDING TO TEMPERATURE WITHIN THE ZONE. WHERE HUMIDIFICATION OR DEHUMIDIFICATION OR BOTH IS PROVIDED, NOT FEWER THAN ONE HUMIDITY CONTROL DEVICE SHALL BE PROVIDED FOR EACH HUMIDITY CONTROL SYSTEM.

EXCEPTION: INDEPENDENT PERIMETER SYSTEMS THAT ARE DESIGNED TO OFFSET ONLY BUILDING ENVELOPE HEAT LOSSES, GAINS OR BOTH SERVING ONE OR MORE PERIMETER ZONES ALSO SERVED BY AN INTERIOR SYSTEM PROVIDED THAT BOTH OF THE FOLLOWING CONDITIONS ARE MET:

1. THE PERIMETER SYSTEM INCLUDES NOT FEWER THAN ONE THERMOSTATIC CONTROL ZONE FOR EACH BUILDING EXPOSURE HAVING EXTERIOR WALLS FACING ONLY ONE ORIENTATION (WITHIN ± 45 DEGREES) (0.8 RAD) FOR MORE THAN 50 CONTIGUOUS FEET (15 240 MM).
2. THE PERIMETER SYSTEM HEATING AND COOLING SUPPLY IS CONTROLLED BY THERMOSTATS LOCATED WITHIN THE ZONES SERVED BY THE SYSTEM.

B. C403.4.1.2 DEADBAND

WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CONFIGURED TO PROVIDE A TEMPERATURE RANGE OR DEADBAND OF NOT LESS THAN 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

EXCEPTIONS:

1. THERMOSTATS REQUIRING MANUAL CHANGEOVER BETWEEN HEATING AND COOLING MODES.
2. OCCUPANCIES OR APPLICATIONS REQUIRING PRECISION IN INDOOR TEMPERATURE CONTROL AS APPROVED BY THE CODE OFFICIAL.

C. C403.4.1.3 SETPOINT OVERLAP RESTRICTION

WHERE A ZONE HAS A SEPARATE HEATING AND A SEPARATE COOLING THERMOSTATIC CONTROL LOCATED WITHIN THE ZONE, A LIMIT SWITCH, MECHANICAL STOP OR DIRECT DIGITAL CONTROL SYSTEM WITH SOFTWARE PROGRAMMING SHALL BE CONFIGURED TO PREVENT THE HEATING SETPOINT FROM EXCEEDING THE COOLING SETPOINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.4.1.2.

D. C403.4.2 OFF-HOUR CONTROLS

EACH ZONE SHALL BE PROVIDED WITH THERMOSTATIC SETBACK CONTROLS THAT ARE CONTROLLED BY EITHER AN AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM.

EXCEPTIONS:

1. ZONES THAT WILL BE OPERATED CONTINUOUSLY.
2. ZONES WITH A FULL HVAC LOAD DEMAND NOT EXCEEDING 6,800 BTU/H (2 KW) AND HAVING A MANUAL SHUTOFF SWITCH LOCATED WITH READY ACCESS.

E. C403.4.2.1 THERMOSTATIC SETBACK

THERMOSTATIC SETBACK CONTROLS SHALL BE CONFIGURED TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C).

F. C403.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN

AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR NOT FEWER THAN 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS; A MANUALLY OPERATED TIMER CONFIGURED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN OCCUPANCY SENSOR.

G. C403.4.2.3 AUTOMATIC START AND STOP

AUTOMATIC START CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE CONTROLS SHALL BE CONFIGURED TO AUTOMATICALLY ADJUST THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY.

H. C403.4.1.1 HEAT PUMP SUPPLEMENTARY HEAT

HEAT PUMPS HAVING SUPPLEMENTARY ELECTRIC RESISTANCE HEAT SHALL HAVE CONTROLS THAT LIMIT SUPPLEMENTAL HEAT OPERATION TO ONLY THOSE TIMES WHEN ONE OF THE FOLLOWING APPLIES:

1. THE VAPOR COMPRESSION CYCLE CANNOT PROVIDE THE NECESSARY HEATING ENERGY TO SATISFY THE THERMOSTAT SETTING.
2. THE HEAT PUMP IS OPERATING IN DEFROST MODE.
3. THE VAPOR COMPRESSION CYCLE MALFUNCTIONS.
4. THE THERMOSTAT MALFUNCTIONS.

HEAT PUMP SPLIT SYSTEM SCHEDULE

AIR HANDLER DATA	UNIT TAG	AHU-1(N)	AHU-2(N)
	UNIT TYPE	HEAT PUMP	HEAT PUMP
	AREA SERVED	REFER PLAN	REFER PLAN
	SUPPLY AIR (CFM)	1380	1380
	OUTSIDE AIR (CFM)	360	360
	STATIC PRESS. (E.S.P INCH OF W.C.)	0.7	0.7
	MANUFACTURER	DAIKIN	DAIKIN
	MODEL NO.	DV48FECD14	DV48FECD14
	WEIGHT, LBS	150	150
	VOLTS/PH/HZ	208-230/1/60	208-230/1/60
	ELECTRIC HEATER	10.0 kW	10.0 kW
	VOLTS/PH/HZ	208-240/1/60	208-240/1/60
	MCA (A)	50.0	50.0
	MOCP (A)	50.0	50.0
CONDENSING UNIT DATA	UNIT TAG	ACCU-1 (N)	ACCU-2 (N)
	AIR HANDLER SERVED	AHU-1(N)	AHU-2(N)
	CAPACITY	4.0 TR	4.0 TR
	REFRIGERANT	R410A	R410A
	TOT. COOLING CAP. (MBH)	42.7	42.7
	COOLING SENS. CAP. (MBH)	33.0	33.0
	TOT. HEATING CAP. (MBH)	38.6	38.6
	COMPRESSOR RLA	27.0	27.0
	OUTDOOR FAN FLA	2.5	2.5
	VOLTS/PH/HZ	208-230/1/60	208-230/1/60
	M.C.A. / MAX. CKT. BRKR. AMPS	34.5/ 35	34.5/ 35
	MANUFACTURER	DAIKIN	DAIKIN
	MODEL	DZ17VSA481B (OR EQUIVALENT)	DZ17VSA481B (OR EQUIVALENT)
	SEER / SEER 2	16.0 / 16.2	16.0 / 16.2
	HSPF / HSPF 2	8.8/ 8.1	8.8/ 8.1
	WEIGHT, LBS	173	173

HEAT PUMP SPLIT SYSTEM NOTES:-

1. PROVIDE DISCONNECT SWITCH & NON-POWERED GFI OUTLET.
2. COORDINATE FINAL LOCATION OF INDOOR AND OUTDOOR UNIT WITH ARCHITECT/OWNER/LANDLORD.
3. SUPPLY AIR CFM BASED ON HIGH SPEED. PROVIDE VARIABLE AIRFLOW ADJUSTMENT CONTROL FOR ALL UNITS.
4. REFRIGERANT R410A SHALL BE PROVIDED.
5. PROVIDE ALL ASSOCIATED ACCESSORIES.
6. ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURERS RECOMMENDATIONS.
7. CONTRACTOR SHALL PROVIDE A LONG LINE SET FOR REFRIGERANT PIPING IN THE EVENT THAT TOTAL REFRIGERANT LENGTH EXCEEDS THE MANUFACTURER'S STANDARD RECOMMENDED LENGTH. CONTRACTOR TO FIELD VERIFY THE EXACT TOTAL REFRIGERANT LENGTH AND COORDINATE WITH THE MANUFACTURER PRIOR ORDERING UNIT
8. PROVIDE DRAIN PAN WITH WATER LEAK DETECTOR.
9. VERIFY ALL DATA WITH MANUFACTURER PRIOR TO ORDERING EQUIPMENT.
10. PROVIDE CONDENSATE DRAIN PUMP IF REQUIRED. ROUTE CONDENSATE DRAIN FROM AHU-1(N) & AHU-2(N) TO THE FLOOR DRAIN LOCATED IN THE ACCESSIBLE RR. COORDINATE WITH PLUMBING CONTRACTOR.
11. CONDENSING UNIT TO BE SELECTED AT 105°F AMBIENT CONDITION.

FAN SCHEDULE

TAG	EF-1(N)	OAF-1(N)
STATUS	NEW	NEW
QUANTITY	1	1
MANUFACTURER	GREENHECK	GREENHECK
MODEL	SP-A290	SQ-98-VG
CFM	200 @ 0.5 (ESP IN W.C.)	735 @ 0.5 (ESP IN W.C.)
AMPS	0.83	10.5
ACCESSORIES	BDD,LITE KIT	MD,LITE KIT
WEIGHT (LBS)	24	59
VOLT / PH / HZ	115/1/60	115/1/60
NOTES	1,2,4.	1,3,4,5.

NOTES :

1. PROVIDE DISCONNECT SWITCH.
2. INTERLOCK EF-1(N) WITH AHU-2(N).
3. INTERLOCK OAF-1(N) WITH AHU-1(N) & AHU-2(N).
4. PROVIDE BACK DRAFT DAMPER.
5. PROVIDE SLOPED FILTER BOX 2" PLEATED (MERV 8/13) FILTERS FOR OAF-1(N)

DIFFUSER SCHEDULE

MANUFACTURER	TITUS	TITUS	TITUS
DESIGNATION	A1	A2	R
USE	SUPPLY	SUPPLY	RETURN
MODEL	TDC-AA	TDC-AA	TDC-AA
MOUNTING	CEILING	CEILING	CEILING
LOCATION	SEE PLAN	SEE PLAN	SEE PLAN
FACE SIZE	24" X 24"	12"X12"	24" X 24"
NECK SIZE	REFER TABLE A	REFER TABLE A	REFER TABLE A
FRAME TYPE	LAY IN	LAY IN / FLANGED	LAY IN
FINISH	WHITE	WHITE	WHITE

NOTES :
1. MAX. NC LEVEL 30 OR LESS.
2. PROVIDE SQUARE TO ROUND NECK ADAPTOR.
3. CO-ORDINATE WITH ARCHITECT FOR FINAL MOUNTING, FRAME TYPE,PAINT AND FINISH.
4. PROVIDE 4-WAY AIR THROW PATTERN UNLESS NOTED OR INDICATED.
5. PROVIDE INSULATED BACKS ON ALL DIFFUSERS.

OCCUPANCY CALCULATION PER 2021 UNIFORM MECHANICAL CODE TABLE 402.1

RECEPTION	324 SQ. FT.	@30 PEOPLE/1000SQ.FT.	10 PEOPLE
FINANCIAL	101 SQ. FT.	@5 PEOPLE/1000SQ.FT.	1 PEOPLE
ADJUSTING	360 SQ. FT.	@25 PEOPLE/1000SQ.FT.	9 PEOPLE
TRACTION	158 SQ. FT.	@25 PEOPLE/1000SQ.FT.	4 PEOPLE
LMT 1	82 SQ. FT.	@25 PEOPLE/1000SQ.FT.	3 PEOPLE
LMT 2	82 SQ. FT.	@25 PEOPLE/1000SQ.FT.	3 PEOPLE
DISCOVERY	74 SQ. FT.	@25 PEOPLE/1000SQ.FT.	2 PEOPLE
X RAY	84 SQ. FT.	@25 PEOPLE/1000SQ.FT.	3 PEOPLE
KIDS	41 SQ. FT.	@25 PEOPLE/1000SQ.FT.	2 PEOPLE
STORAGE / IT CLOSET	46 SQ. FT.	@2 PEOPLE/1000SQ.FT.	1 PEOPLE
EMPOWERMENT	92 SQ. FT.	@5 PEOPLE/1000SQ.FT.	1 PEOPLE
		TOTAL	39 PEOPLE

VENTILATION REQUIREMENTS PER 2021 UNIFORM MECHANICAL CODE TABLE 402.1

RECEPTION	324 SQ. FT. X 0.06 CFM/SQ. FT. =	20 CFM
	10 PEOPLE. X 5 CFM/PEOPLE. =	50 CFM
FINANCIAL	101 SQ. FT. X 0.06 CFM/SQ. FT. =	6 CFM
	1 PEOPLE. X 5 CFM/PEOPLE. =	5 CFM
ADJUSTING	360 SQ. FT. X 0.18 CFM/SQ. FT. =	65 CFM
	9 PEOPLE. X 10 CFM/PEOPLE. =	90 CFM
TRACTION	158 SQ. FT. X 0.18 CFM/SQ. FT. =	28 CFM
	4 PEOPLE. X 10 CFM/PEOPLE. =	40 CFM
LMT 1	82 SQ. FT. X 0.18 CFM/SQ. FT. =	15 CFM
	3 PEOPLE. X 10 CFM/PEOPLE. =	30 CFM
LMT 2	82 SQ. FT. X 0.18 CFM/SQ. FT. =	15 CFM
	3 PEOPLE. X 10 CFM/PEOPLE. =	30 CFM
DISCOVERY	74 SQ. FT. X 0.18 CFM/SQ. FT. =	14 CFM
	2 PEOPLE. X 10 CFM/PEOPLE. =	30 CFM
X RAY	84 SQ. FT. X 0.18 CFM/SQ. FT. =	15 CFM
	3 PEOPLE. X 10 CFM/PEOPLE. =	20 CFM
KIDS	41 SQ. FT. X 0.18 CFM/SQ. FT. =	8 CFM
	2 PEOPLE. X 10 CFM/PEOPLE. =	20 CFM
STORAGE / IT CLOSET	46 SQ. FT. X 0.06 CFM/SQ. FT. =	3 CFM
	1 PEOPLE. X 5 CFM/PEOPLE. =	5 CFM
EMPOWERMENT	92 SQ. FT. X 0.06 CFM/SQ. FT. =	6 CFM
	1 PEOPLE. X 5 CFM/PEOPLE. =	5 CFM
HALLWAY	198 SQ. FT. X 0.06 CFM/SQ. FT. =	12 CFM
OUTSIDE AIR REQUIRED		532 CFM
BREATHING ZONE OUTDOOR AIRFLOW (Vbz)	=	532 CFM
ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez)	=	0.8
ZONE OUTDOOR AIRFLOW (Voz=Vbz/Ez)	=	665 CFM
TOTAL OUTSIDE AIR PROVIDED		735 CFM
UNISEX ACCESSIBLE RESTROOM	70 CFM PER FIXTURE	70 CFM
EXHAUST AIR REQUIRED		70 CFM
OUTSIDE AIR FOR AHU-1(N)		360 CFM
OUTSIDE AIR FOR AHU-2(N)		375 CFM
AIR BALANCE		
O/A PROVIDED		+735 CFM
EF-1(N)		-200 CFM
BUILDING PRESSURE		+535 CFM

NECK SIZE TABLE - A

NECK SIZE DIA	CFM RANGE
Ø6"	0-100
Ø8"	101-200
Ø10"	201-400
Ø12"	401-600

HVAC PIPING INSULATION NOTES

1. ALL INSULATION MATERIALS, INCLUDING JACKETS, FACING, ADHESIVE, COATINGS, AND ACCESSORIES ARE TO BE FIRE HAZARD RATED AND LISTED BY UNDERWRITERS LABORATORIES, INC. USING STEINER TUNNEL TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS, STANDARD UL 723 (ASTM E-84), (ASA A2.5-1963). FLAMESPREAD: MAXIMUM 25. FUEL CONTRIBUTED AND SMOKE DEVELOPED: MAXIMUM 50. FLAMEPROOFING TREATMENTS SUBJECT TO DETERIORATION FROM MOISTURE OR HUMIDITY ARE NOT ACCEPTABLE.
2. EXPOSED: INDOOR DUCTS, PIPING OR EQUIPMENT LOCATED IN MECHANICAL EQUIPMENT ROOMS AND IN AREAS WHICH WILL BE VISIBLE WITHOUT REMOVING CEILINGS OR OPENING ACCESS PANELS.
3. CONCEALED: INDOOR PIPING OR EQUIPMENT WHICH IS NOT EXPOSED.
4. OUTDOOR: PIPING OR EQUIPMENT WHICH IS EXPOSED TO THE WEATHER.

MINIMUM REFRIGERANT PIPE INSULATION THICKNESS (IN.)

FLUID OPERATING TEMP. RANGE & USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (IN.)				
	CONDUCTIVITY BTU.IN./(H.FT^2.°F)	MEAN RATING TEMP., °F	<1	1 TO<1-1/2	1-1/2 TO <4	4 TO <8	≥8
105 — 140	0.21 — 0.28	100	1.0	1.0	1.5	1.5	1.5
40 — 60	0.21 — 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 — 0.26	50	0.5	1.0	1.0	1.0	1.5

NY ENGINEERS

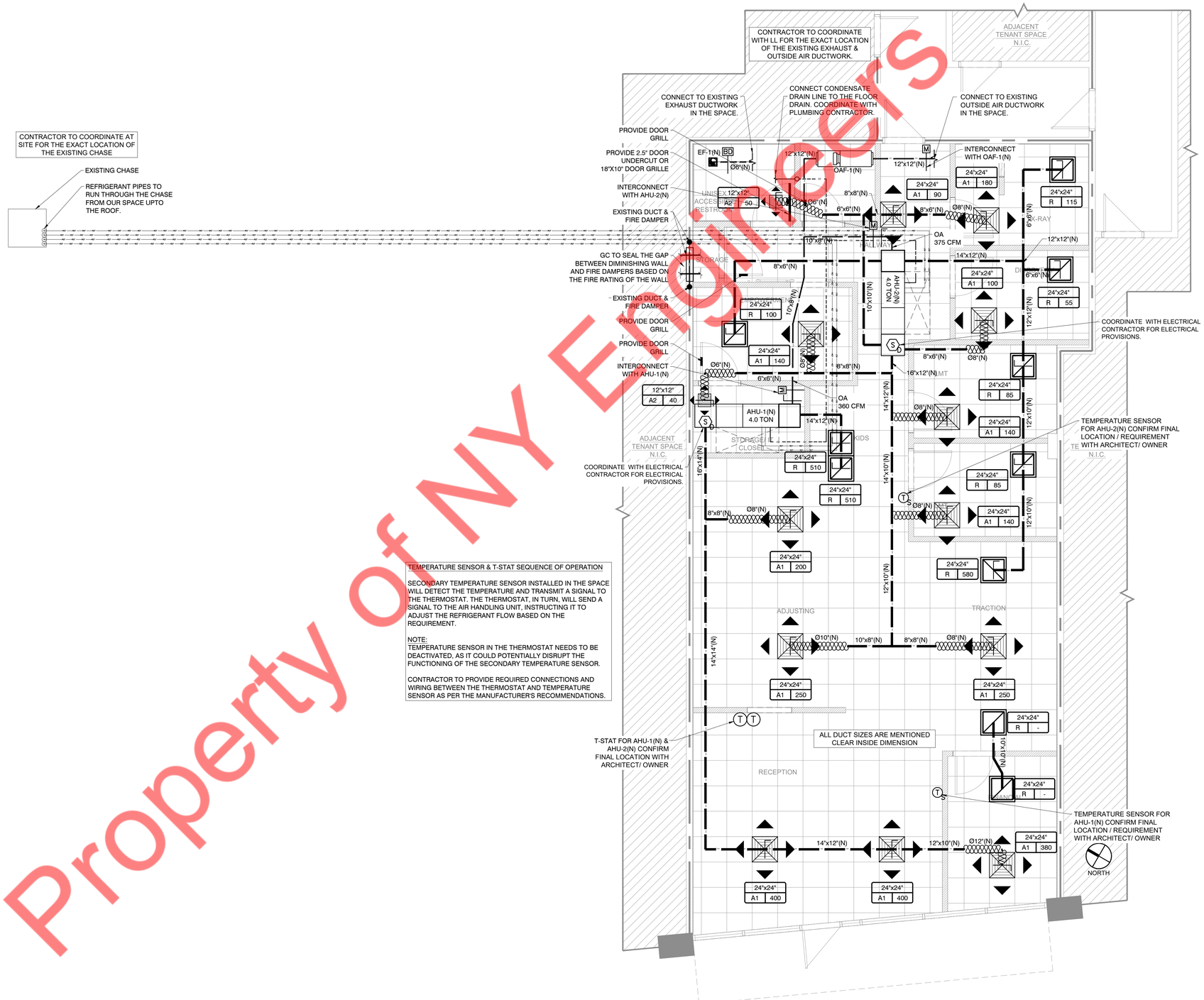
PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

HVAC NOTES & SCHEDULES

M-1



TEMPERATURE SENSOR & T-STAT SEQUENCE OF OPERATION

SECONDARY TEMPERATURE SENSOR INSTALLED IN THE SPACE WILL DETECT THE TEMPERATURE AND TRANSMIT A SIGNAL TO THE THERMOSTAT. THE THERMOSTAT, IN TURN, WILL SEND A SIGNAL TO THE AIR HANDLING UNIT, INSTRUCTING IT TO ADJUST THE REFRIGERANT FLOW BASED ON THE REQUIREMENT.

NOTE:
TEMPERATURE SENSOR IN THE THERMOSTAT NEEDS TO BE DEACTIVATED, AS IT COULD POTENTIALLY DISRUPT THE FUNCTIONING OF THE SECONDARY TEMPERATURE SENSOR.

CONTRACTOR TO PROVIDE REQUIRED CONNECTIONS AND WIRING BETWEEN THE THERMOSTAT AND TEMPERATURE SENSOR AS PER THE MANUFACTURER'S RECOMMENDATIONS.

HVAC FLOOR PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

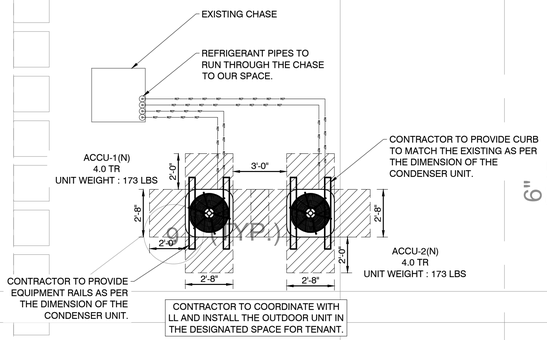
REVISIONS DATES:

HVAC FLOOR PLAN

M-2

ALL ROOF WORK SHALL BE PERFORMED BY LANDLORD ROOF CONTRACTOR AS TO MAINTAIN ROOF WARRANTY. MATCH EXISTING ROOF INSTALLATIONS.

CONTRACTOR TO FILED VERIFY THE EXACT LOCATION OF THE CHASE.



CONTRACTOR TO COORDINATE WITH LL AND INSTALL THE OUTDOOR UNIT IN THE DESIGNATED SPACE FOR TENANT.

OAF-3

CH-2

3

7

3

9 (TYP.)

6" CHS

6"ø CHR

2 (TYP.)

8"ø CHS

8"ø CHR

1

100% CHIROPRACTIC SPACE

10.1

9.1

8.1

HVAC ROOF PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

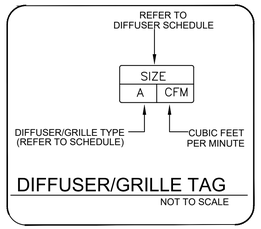
PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

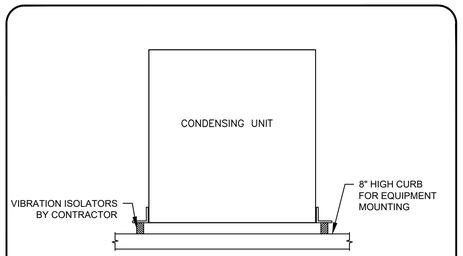
HVAC ROOF PLAN

M-3



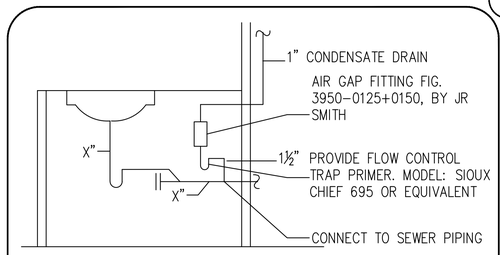
DIFFUSER/GRILLE TAG

NOT TO SCALE



CONDENSER MOUNTING DETAIL

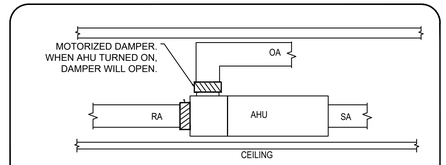
NOT TO SCALE



NOTE:
LOCATE AIR GAP FITTING AND PIPING WITHIN SINK/LAVATORY ENCLOSURE.

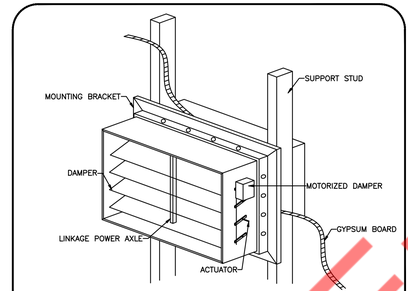
AIR GAP FITTING DETAIL

NOT TO SCALE



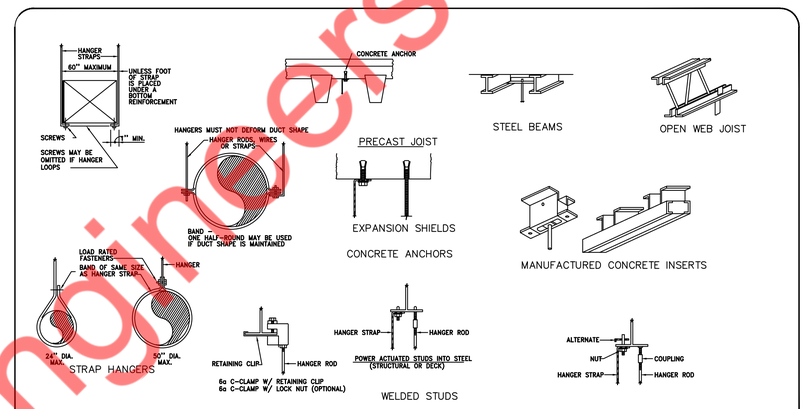
AHU DETAIL

NOT TO SCALE



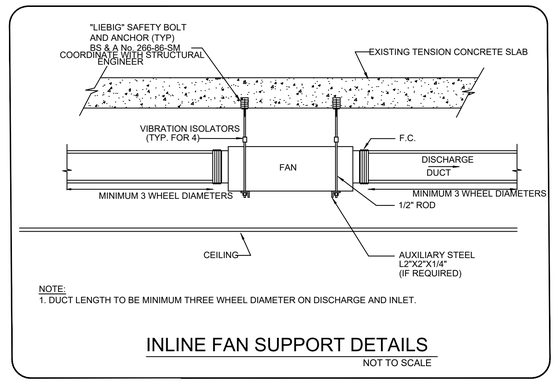
MOTORIZED DAMPER DETAIL

NOT TO SCALE



UPPER & LOWER ATTACHMENTS & DEVICES

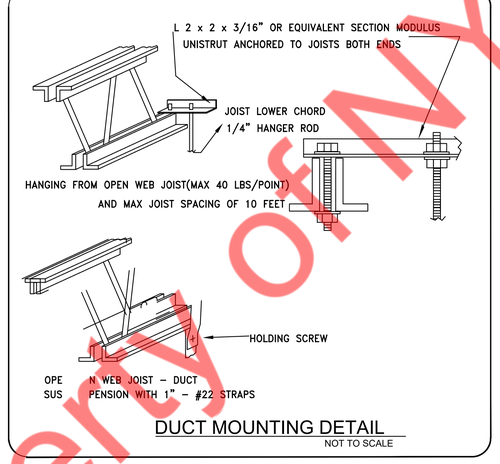
NOT TO SCALE



NOTE:
1. DUCT LENGTH TO BE MINIMUM THREE WHEEL DIAMETER ON DISCHARGE AND INLET.

INLINE FAN SUPPORT DETAILS

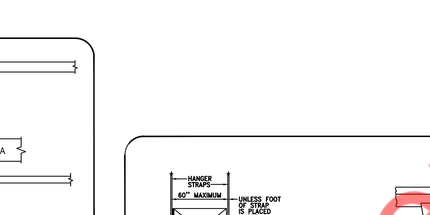
NOT TO SCALE



DUCT MOUNTING DETAIL

NOT TO SCALE

CHANNEL SELECTION		
DUCT WIDTH MIN.	CHANNEL GUAGE MIN.	CHANNEL PROFILE
LESS THAN 18"	22 3"x 2"	
LESS THAN 30"	18 3"x 2"	



CLOSURE:
-PRESSURE SENSITIVE ALUMINUM FOIL TAPES LSITED UNDER UL 181A, PART I (P)
- HEAT ACTIVATED ALUMINUM FOIL/SCRIM TAPES LISTED UNDER UL 181A, PART II (H)
- MASTIC AND GLASS FABRIC TAPE CLOSURE SYSTEMS LISTED UNDER UL 181A, PART III (M)

DUCT SIZE,IN.	MAXIMUM HANGER SPACING
① WIDTH 48" OR GREATER	4'-0"
② LESS THEN 48"W X 12"H	6'-0"
③ WIDTH BETWEEN 24" & 48" & HEIGHT OVER 24"	6'-0"
④ WIDTH BETWEEN 24" & 48" & HEIGHT BETWEEN 12" & 24"	8'-0"
⑤ WIDTH LESS THAN 24" & HEIGHT GREATER THAN 12"	8'-0"
DUCT REINFORCING PER SMACNA REQUIRED	

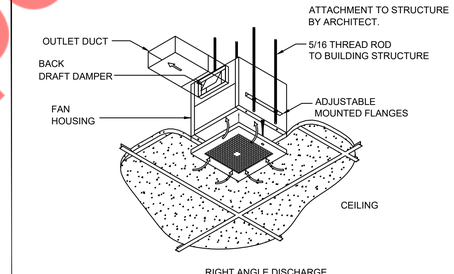
HANGER SPACING AND EXTENSION
3" WIDE CHANNELS

DUCT SUPPORTS

NOT TO SCALE

TYPICAL HORIZONTAL AIR HANDLER DETAIL

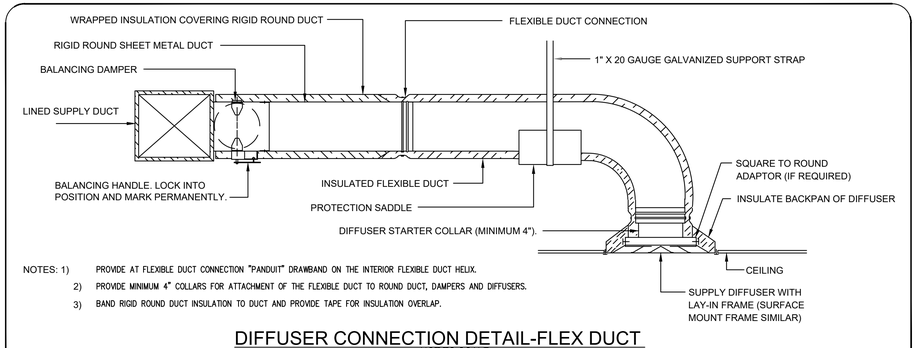
NOT TO SCALE



RIGHT ANGLE DISCHARGE

CEILING EXHAUST FAN DETAIL

NOT TO SCALE



NOTES: 1) PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2) PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3) BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

DIFFUSER CONNECTION DETAIL-FLEX DUCT

NOT TO SCALE

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

MECHANICAL DETAILS

M-4

SCOPE OF WORK

1. REUSE EXISTING (1) 225A, 120/208V, 3-PHASE ELECTRICAL BREAKER FROM THE EXISTING "1DPA1" ELECTRICAL PANEL FOR THE PROPOSED TENANT SPACE.
2. REUSE EXISTING (1) 200A, 277/480V, 3-PHASE, 4-WIRE ELECTRICAL METER FOR THE PROPOSED TENANT SPACE.
3. PROVIDE NEW (1)200A, 277/480V, 3-PHASE, 4-WIRE ELECTRICAL DISCONNECT SWITCH FOR THE PROJECT SPACE.
4. PROVIDE (1) NEW 112.5KVA, 3-PHASE TRANSFORMER, 277/480V, PRIMARY AND 120/208V FOR THE PROJECT SPACE.
5. PROVIDE NEW (1) 400A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE.
6. PROVIDE ALL NECESSARY EQUIPMENT, WIRING AND LIGHTING FOR THE DRIPBAR SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH G.C FOR LOW VOLTAGE WIRING.

ELECTRICAL PLAN NOTES

1. ELECTRICAL CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET.
2. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT, NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.
3. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL OWNER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.
4. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 NATIONAL ELECTRIC CODE AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION.
6. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION FOR ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
7. ALL ELECTRICAL NOT BEING REUSED MUST BE REMOVED IN ITS ENTIRETY.
8. ALL CONDUIT IN OR UNDERGROUND OR IN CONCRETE MUST BE RIGID GALVANIZED STEEL.
9. CIRCUIT BREAKERS AND PANELS TO BE BOLT ON TYPE.
10. ALL EQUIPMENT SHALL BE APPROVED BY UL OR OTHER NATIONALLY RECOGNIZED TESTING COMPANY.
11. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY NEC 250.146
12. SUBMIT SERVICE ENTRANCE EQUIPMENT FOR SEPARATE APPROVAL.
13. ALL LOW VOLTAGE MUST BE IN CONDUIT TO ABOVE THE DROP CEILING. BRIDAL RINGS OR "J" HOOKS REQUIRED.
14. SEPARATE PERMITS ARE REQUIRED FOR ALL LOW VOLTAGE SUCH AS TELEPHONE, DATA, THERMOSTAT, MUSIC, ALARMS ETC.
15. SEPARATE PERMIT REQUIRED FOR SIGNAGE.
16. PRIOR TO ANY CONSTRUCTION WORK BEGINNING AN ON-SITE MEETING WITH GENERAL CONTRACTORS IS REQUIRED.
17. ELECTRICIAN MUST BE ON SITE FOR ALL INSPECTIONS.
18. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING. ALL CONDUCTORS SHALL BE COPPER AND UNLESS OTHERWISE NOTED THHN INSULATION.
19. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, PLASTIC AND CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS, AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
20. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
21. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE N.E.C. OR LOCAL CODES.
22. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
23. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
24. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
25. ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE THAT CERTIFICATE OF OCCUPANCY IS ISSUED. WARRANTY SHALL BE PROVIDED IN WRITING. PROVIDE COPY TO LL.
26. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
27. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
28. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.
29. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES.
30. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
31. ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE CIRCUIT BREAKERS.
32. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, DEVICES, ETC. FOR ALL OUTLETS AS INDICATED.
33. MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF N.E.C. NEMA, AND IECE.
34. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
35. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING, PATCHING AND FIRED CAULKING REQUIRED OF HIS WORK.
36. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/TYPE WRITTEN DIRECTORIES.
37. ALL ELECTRICAL AND COMMUNICATIONS OUTLETS TO BE AT 24" A.F.F. UNLESS NOTED OTHERWISE, AND VERTICALLY MOUNTED.
38. ALL LIGHT SWITCHES TO BE AT 42" A.F.F.
39. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL ELECTRICAL WIRING FOR HVAC SYSTEM INCLUDING CONTROLS, THERMOSTATS, POWER, ETC. SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
40. BREAKER AND PANELS -- ALL CURRENT CARRYING BUSSES SHALL BE COPPER, ALL GROUND BUS BARS SHALL BE COPPER. PANEL BOARD ENCLOSURES SHALL BE FURNISHED WITHOUT PRE-PUNCHED CONCENTRIC HOLES. A.I.C. RATINGS SHALL BE AS INDICATED ON PANEL BOARD SCHEDULES.
41. DISCONNECT SWITCHES SHALL BE H.P. RATED, GENERAL DUTY, QUICK-MAKE, QUICK-BREAK ENCLOSURES AS REQUIRED BY EXPOSURE.
42. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC, WITH OVERLOAD RELAYS IN EACH HOT LEG.
43. THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS INDICATES THE CONTRACT SHALL FURNISH AND INSTALL.
44. CONTRACTOR SHALL CONFIRM WITH ANY AND ALL REQUIREMENTS SUCH AS: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, TRANSFORMER SIZE, SCHEDULED DOWN TIME FOR OWNERS CONFIRMATION, ETC. ANY CONFLICTS SHALL BE BROUGHT TO ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
45. VOLTAGE DROP FOR ALL BRANCH CONDUCTORS SHALL NOT EXCEED 3%. WHERE VOLTAGE DROP EXCEEDS 3%, CONTRACTOR SHALL INCREASE SIZE OF CONDUCTORS.
46. CONTRACTOR SHALL PROVIDE GFI TYPE BREAKER FOR ALL EXTERIOR 120V CIRCUITS OR GFI PROTECTION -- FOR THE WHOLE CIRCUIT.
47. GAS PIPING SHALL BE BONDED.
48. ELECTRICAL CONTRACTOR SHALL COORDINATE SERVICE ENTRY WITH SERVICE PROVIDER PRIOR TO DETERMINING EXACT LOCATION OF THE METER BOX IN ORDER TO AVOID DISCREPANCIES BETWEEN DRAWINGS AND JOB CONDITIONS.
49. ALL OUTDOOR EQUIPMENT SHALL BE WEATHERPROOF.
50. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE. PROVIDE A COPY TO LL.
51. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.
52. ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS PERMITTED FOR SHORT FINAL CONNECTIONS ONLY (6'-0" OR LESS).
53. EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL OR IN RIGHT ANGLES TO THE BUIDING STRUCTURE. DO NOT LOOP EXCESS FLEXIBLE CONDUIT IN CEILING SPACE OR WALL CAVITY. NO CONDUIT TO BE SUPPORTED FROM THE ROOF DECK.
54. CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE PERMITTED.
55. ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN COMPLIANCE WITH NEC AND UL REQUIREMENTS.
56. ALL PANELS TO BE UL LABELED WITH BOLT-ON TYPE CIRCUIT BREAKERS.
57. 7-DAY 24-HOUR TIME CLOCK IS REQUIRED TO CONTROL STOREFRONT ENTRY LIGHTS, SHOW WINDOW LIGHTS, SHOW WINDOW RECEPTACLES AND STOREFRONT SIGNAGE. ILLUMINATED STOREFRONT SIGNS MUST REMAIN LIT DURING ALL MALL BUSINESS HOURS.
58. TENANT IS REQUIRED TO MAKE A FIELD SURVEY OF THE EXISTING ELECTRICAL SERVICE TO ENSURE THAT THE TOTAL CONNECTED LOAD DOES NOT EXCEED THE ELECTRIC SERVICE. ANY/ALL MODIFICATIONS OR UPGRADES NEEDED ARE SUBJECT TO LANDLORD'S PRIOR APPROVAL AND WILL BE COMPLETED BY TENANT/TENANT'S GC AT TENANT'S SOLE EXPENSE.
59. ALL ELECTRICAL PANELS TO BE MOUNTED ON PLYWOOD BACKER BOARD.
60. PANEL PHASE LOADS TO BE BALANCED WITHIN 10%.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	EXHAUST FAN
J	JUNCTION BOX
	BATTERY BACK UP EXIT LIGHT
	BATTERY BACK UP EMERGENCY LIGHT
$	WALL SWITCH (SINGLE)
$T	WALL SWITCH (TIMER)
$D	DIMMER WALL SWITCH
$OS	OCCUPANCY SENSOR WALL
USB	DUPLEX RECEPTACLE WITH USB PROVISION.
	DUPLEX RECEPTACLE, 46" TO AFF AT KITCHEN, BATHS AND TOPS
	QUADRUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	230V RECEPTACLE
	ELECTRICAL PANEL
	DISCONNECT SWITCH
TV	TELEVISION OUTLET
T	TELEPHONE/DATA OUTLET
T	TELEPHONE OUTLET
D	DATA OUTLET
CL	CEILING MOUNTED DATA OUTLET
A	30A/240V NON FUSED DISCONNECT SWITCH
B	60A/240V NON FUSED DISCONNECT SWITCH
C	100A/240V NON FUSED DISCONNECT SWITCH

ABBREVIATIONS:

ABOVE FINISH FLOOR= A.F.F.
COUNTER TOP LEVEL= C
GROUND FAULT INTERRUPTER= GFCI
VERIFY PRIOR TO INSTALL= VH
WEATHER PROOF= WP
EXHAUST FAN = EF
WATER HEATER= WH
OUTSIDE AIR FAN= OAF
BELOW COUNTER= BC
PUSH BUTTON= PB
UNDER CABINET= UC
DRYER= DR
ELECTRICAL CONTRACTOR=E.C.
AIR HANDLING UNIT= AHU
AUTHORITY HAVING JURISDICTION= A.H.J.
AIR COOLED CONDENSING UNIT = ACCU

GENERAL LIGHTING NOTES

A. UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE .

B. ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR

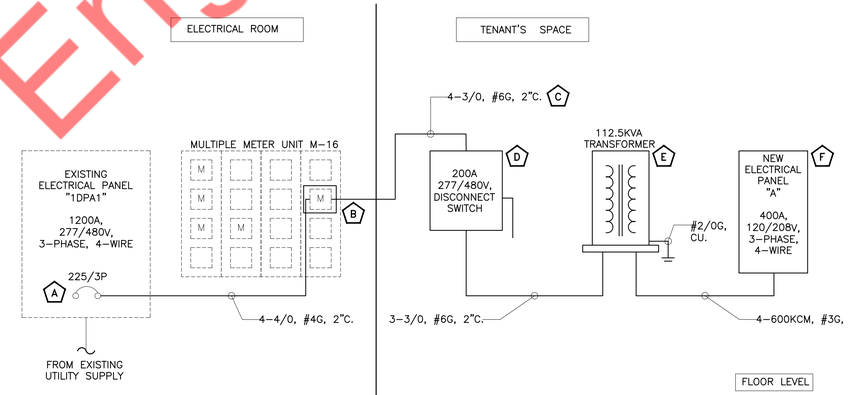
LANDLORD NOTES

1. CONTRACTOR TO MAKE SURE THAT RESTRICTIONS ON CONSTRUCTION HOURS AND CONDUCTING CERTAIN CONSTRUCTION ACTIVITIES SHOULD BE COORDINATED WITH THE LANDLORD. COORDINATE REQUIREMENTS WITH THE LANDLORD AND THE ARCHITECT.
2. CONTRACTOR TO MAKE SURE THAT DRAWINGS FOR INSTALLATION TO CONFORM TO SHELL BUILDING STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL MAINTAIN ON SITE SET OF AS-BUILT DRAWINGS, WHICH SHALL BE PROVIDED IN BOTH CAD AND PDF FORMAT, IN ADDITION TO HARD-COPIES UPON PROJECT COMPLETION.
4. CONTRACTOR TO VERIFY COMPLIANCE WITH LEED TENANT REQUIREMENTS.
5. CONTRACTOR TO MAKE SURE THAT A REVIEW OF THE TECHNOLOGY, SECURITY, AND AV SYSTEM DESIGN NOT INCLUDED IN THIS SCOPE. HOWEVER, THE INSTALLATION SHALL CONFORM TO BUILDING STANDARDS, CITY OF AUSTIN AND STATE OF TEXAS INSTALLATION REQUIREMENTS.
6. ALL ROOF WORK SHALL BE PERFORMED BY BUILDING ROOF CONTRACTOR AS TO MAINTAIN ROOF WARRANTY. ADD REFERENCES TO PERFORM ALL WORK IN ACCORDANCE WITH BUILDING ROOF CONTRACTOR REQUIREMENTS. MATCH EXISTING ROOF INSTALLATIONS.
7. IF THE DEMISING WALLS ARE RATED, THEN ADDITIONAL DAMPERS ARE REQUIRED. CONFIRM RATING REQUIREMENTS AT WALLS BETWEEN TENANTS.

LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	VOLT	NUMBER OF FIXTURES	LAMP TYPE	TOTAL WATTS	MOUNTING
	A	5" LED REFLECTOR RECESSED TRIM	NORA LIGHTING	NOXTW-5631BB	120	49	LED	760 WATTS	RECESSED
	B	5" RECESSED EYEBALL SIGHT	PROGRESS LIGHTING	P8176-31-30K	120	1	LED	9 WATTS	RECESSED
	C	PENDANT LIGHT	WORLD MARKET	566742	120	6	LED	360 WATTS	PENDANT
	D	TRACK LIGHT	LITHONIA LIGHTING	LTIKBELL-27K90CRIDBL	120	16	LED	132.8 WATTS	TRACK
	F	SCONCE ON DIMMERS	JUSTICE DESIGN GROUP	CER-2235W BIS	120	6	LED	72 WATTS	RECESSED
	X1	EXIT/EMERGENCY COMBO SIGNS	LITHONIA LIGHTING	TBD	120	1	LED	3 WATTS	WALL
	Y2	WALL MOUNTED EMERGENCY LIGHTS	LITHONIA LIGHTING	TBD	120	3	LED	9 WATTS	WALL/CEILING
$T	T	TIMER WALL SWITCH	LEVITON	DDS15-BDZ	120	-	-	-	WALL
$D	D	DIMMER WALL SWITCH	TBD	TBD	120	-	-	-	WALL
$OS	OS	OCCUPANCY WALL SWITCH	LEVITON	ODS10-ID	120	-	-	-	WALL
	(E)	EXISTING LIGHT TO REMAIN	-	-	-	-	-	-	-

NOTE: -EQUIVALENT LIGHT FIXTURES ARE ACCEPTABLE. FOR DECORATIVE LIGHTS, EQUIVALENT TO BE SUBMITTED TO CORPORATE FOR APPROVAL.
-EMERGENCY EGRESS LIGHTING FIXTURES TO REMAIN ON.



ELECTRICAL RISER DIAGRAM KEYED NOTES:

A. EXISTING 225A, 3P, 277/480V BREAKER SWITCH IN THE EXISTING MAIN PANEL "1DPA1" SERVING THE PROJECT SPACE SHALL REMAIN. E.C COORDINATE WITH LANDLORD/BASE BUILDING FOR THE EXACT LOCATION OF THE MAIN PANEL "1DPA1" AND EXACT POWER DISTRIBUTION IN THE FIELD. E.C SHALL VERIFY OPERABLE CONDITION OF EXISTING BREAKER IN FIELD AND PROVIDE NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.

B. EXISTING 200A, 277/480V, 3-PHASE, 4-WIRE ELECTRICAL METER IN THE EXISTING MULTIPLE METER UNIT TO REMAIN. E.C TO VERIFY OPERATING CONDITION OF THE EXISTING ELECTRICAL METER IN FIELD AND PROVIDE NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.

C. NEW 200A, 277/480V, 3-PHASE, 4-WIRE ELECTRICAL INCOMING FEESER TO THE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE FROM THE EXISTING METER AND BREAKER IN THE BASE BUILDING POWER DISTRIBUTION SYSTEM. E.C SHALL GET INFORMATION ABOUT THE EXISTING POWER DISTRIBUTION PRIOR TO COMMENCING ANY WORK AND INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.

D. NEW 200A, 277/480V, 3-PHASE, 4 WIRE ELECTRICAL FUSED DISCONNECT SWITCH(MAKE:-SQUARE-D, MODEL:-VH364). E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

E. NEW 112.5KVA 3-PHASE TRANSFORMER (MAKE:-SQUARE-D, MODEL:-EXN112T3H) WITH PRIMARY 277/480V AND SECONDARY 120/208V. E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

F. NEW 400A, 120/208V, 3-PHASE, 4 WIRE ELECTRICAL PANEL "A" (MAKE:-SQUARE-D, MODEL:-NQ442L4C WITH MAIN CIRCUIT BREAKER & OTHER REQUIRED ACCESSORIES). E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

ELECTRICAL RISER SYMBOLS
- NEW
- EXISTING ITEM/FEEDER TO REMAIN
- EXISTING ITEM/FEEDER TO BE DISCONNECTED & REMOVED

ELECTRICAL RISER DIAGRAM GENERAL NOTES:

1. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
2. ABOVE RISER DIAGRAM IS FOR REFERENCE PURPOSES ONLY. E.C. SHALL VERIFY EXACT POWER DISTRIBUTION IN FIELD AND INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY.
3. E.C. TO VERIFY OPERABLE CONDITIONS OF EXISTING DEVICES IN FIELD. REPLACE/RECTIFY IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
4. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.
5. EXISTING ELECTRICAL DISTRIBUTION TO BE MAINTAINED AND UTILIZED TO SERVE PROJECT SPACE. POWER RISER DIAGRAM INDICATED FOR REFERENCE PURPOSES ONLY.
6. E.C. TO COORDINATE WITH OWNER FOR THE SPECIFIC REQUIREMENT FOR THE ELECTRICAL SWITCHGEARS. BASE BID ACCORDINGLY.

ELECTRICAL RISER | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

ELECTRICAL PLAN NOTES AND RISER DIAGRAM

E-1

ELECTRICAL LIGHTING PLAN KEYED WORK NOTES:

A. CONNECT ALL EMERGENCY EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES. ALL THE EMERGENCY EGRESS FIXTURES WITHIN THE SPACE TO REMAIN ON.

B. COORDINATE EXACT LOCATION OF TIMER SWITCH BANK WITH OWNER/ARCHITECT.

C. PROVIDE SHOW WINDOW RECEPTACLE AS PER NEC 210.62. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER.

D. EXISTING LIGHT FIXTURE DENOTED BY (E) SHALL REMAIN AS SHOWN. E.C. SHALL VERIFY THE EXACT EXISTING LIGHTING CONTROLS PROVIDED, THEIR OPERATING CONDITIONS IN FIELD. THE EXISTING LIGHTING CONTROLS SHALL BE IN COMPLIANCE WITH IECC CODES. PROVIDE NEW CONTROLS IF REQUIRED. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES/ISSUES BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.

E. LIGHTING CONTROL IN THE ROOM SHALL NOT BE WITH AUTOMATIC MEANS AS PER NEC 110.26(D).

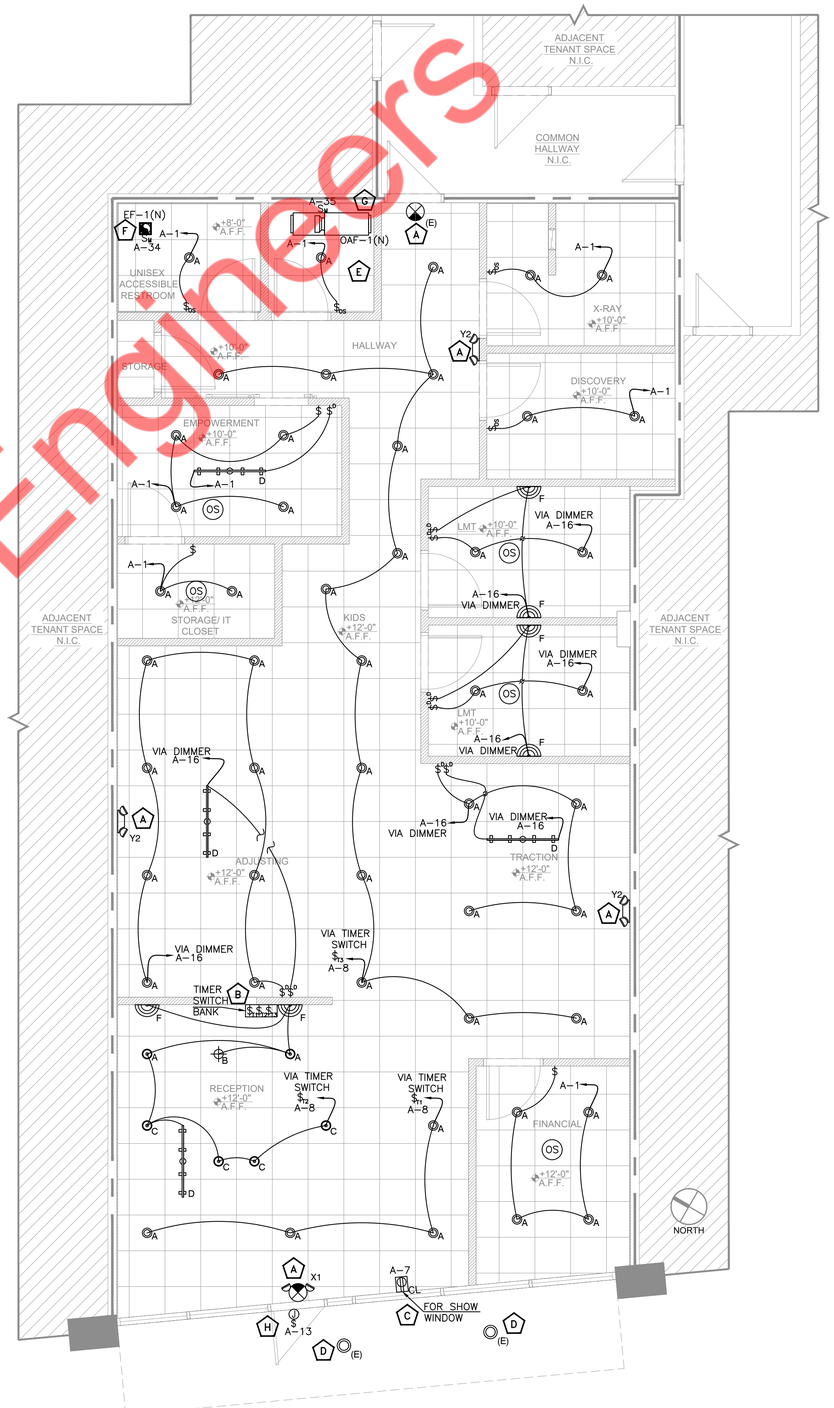
F. INTERLOCK EXHAUST FAN EF-1(N) WITH AHU-2(N) E.C. TO COORDINATE WITH MECHANICAL DRAWINGS.

G. INTERLOCK EXHAUST FAN OAF-1(N) WITH AHU-1(N) & AHU-2(N) E.C. TO COORDINATE WITH MECHANICAL DRAWINGS.

H. E.C. TO COORDINATE THE BUILDING SIGNAGE REQUIREMENTS WITH SIGN VENDOR. BASE BID ACCORDINGLY.

ELECTRICAL LIGHTING PLAN GENERAL NOTES:

1. COORDINATE FINAL FIXTURE MAKE & MODEL WITH ARCHITECT/OWNER.
2. ALL LIGHT FIXTURES CONSIDERED TO BE AS 120 VOLT FIXTURE. E.C. SHALL INFORM ENGINEER ON RECORD OTHERWISE.
3. UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE.
4. ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
5. G.C. TO VERIFY AND CONFIRM LIGHT FIXTURES HEIGHT AS PER THE ARCHITECTURE PLANS.
6. E.C. TO MAKE SURE THAT ALL THE LIGHTING CONTROL SHALL BE IN COMPLIANCE WITH IECC 2021.
7. REMOVE THE EXISTING BATTERY PACK(BUG-EYE TYPE) LIGHTING FIXTURE UNITS WITHIN THE SPACE IF ANY.



LIGHTING PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

LIGHTING PLAN

E-2

ELECTRICAL POWER PLAN KEYED WORK NOTES:

A. NEW 400A, 120/208V, 3–PHASE, 4–WIRE ELECTRICAL PANEL "A". E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

B. E.C. SHALL VERIFY/PERFORM THE INSTALLATION OF ELECTRICAL PANELS IN COMPLIANCE WITH 2020 NEC ARTICLE 110.26(A) AND (B). E.C. SHALL FIELD VERIFY THAT THE PANELS ARE UNOBSTRUCTED AND THE AREA WHERE THE PANELS ARE PLACED SHALL NOT BE USED AS A STORAGE SPACE.

C. NEW 200A, 277/480V, 3–PHASE, 4 WIRE ELECTRICAL FUSED DISCONNECT SWITCH. E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.

D. NEW 112.5KVA 3–PHASE TRANSFORMER WITH PRIMARY 277/480V AND SECONDARY 120/208V. E.C. TO COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER. THE DIMENSIONS PROVIDED ARE FOR STANDARD TRANSFORMER. E.C. TO VERIFY DIMENSIONS WITH THE SUBMITTAL PRIOR TO INSTALLATION TO MAKE SURE ALL CLEARANCES AS STATED BY APPLICABLE CODES AND MANUFACTURER ARE BEING MET. BASE BID ACCORDINGLY.

E. E.C. SHALL COORDINATE WITH THE WATER HEATER MANUFACTURER FOR THE EXACT POWER REQUIREMENTS PRIOR TO ROUGH–IN. BASE BID ACCORDINGLY.

F. ALL 15/20A, 125V AND 250V NON LOCKING TYPE RECEPTACLES IN LOBBY/ RECEPTION/HALLWAY SHALL BE LISTED TAMPER RESISTANCE AS PER 2020 NEC 406.12.

G. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT OF THE MECHANICAL UNITS IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.

H. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT AND FUSE REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH–IN AND PROVIDE AS REQUIRED. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.

I. FOR X–RAY GENERATOR, ELECTRICAL CONTRACTOR TO CO–ORDINATE WITH MANUFACTURER/VENDOR FOR ITS EXACT LOCATION, POWER REQUIREMENT AND OTHER DETAILS BEFORE COMMENCING AND WORK. BASE BID ACCORDINGLY. USE COPPER WIRE ONLY, MAXIMUM VOLTAGE DROP 5%@ MAXIMUM EXPOSURE LOAD AS PER THE CUT SHEET.

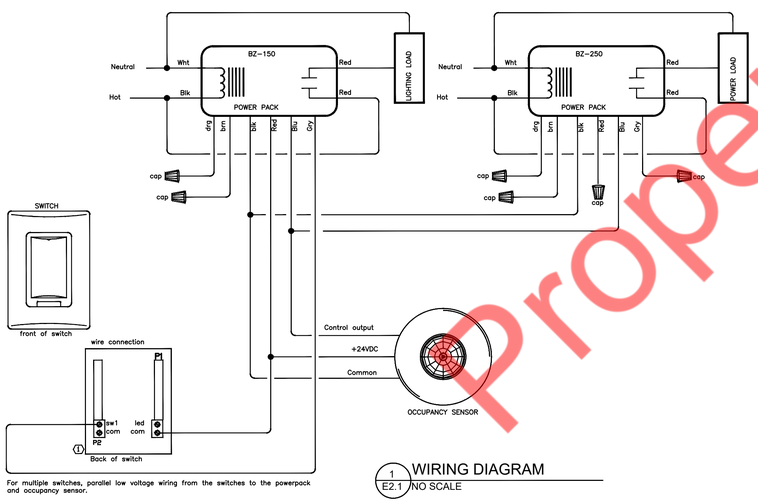
J. E.C. SHALL COORDINATE WITH LOW VOLTAGE VENDOR FOR EXACT QUANTITY AND POWER REQUIREMENTS FOR LOW VOLTAGE EQUIPMENTS PRIOR TO ROUGH–IN. BASE BID ACCORDINGLY.

K. 50% OF 15/20A RECEPTACLE INSTALLED IN THIS AREAS SHALL HAVE AUTOMATIC RECEPTACLE CONTROL IN ACCORDANCE WITH IECC 2021 SECTION C405.11.1. PROVIDE PERMANENT MARKING AS PER NEC 406.3(E). REFER E.2 SHEET FOR DETAILS. BASE BID ACCORDINGLY.

L. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTION OF BOTH TOP AND BOTTOM OUTLETS. PROVIDE SWITCHED DUPLEX RECEPTACLE FOR NORMAL AND AUTOMATIC SHUT OFF CONTROL. TOP RECEPTACLE SHALL BE CONTROLLED. BASE BID ACCORDINGLY.

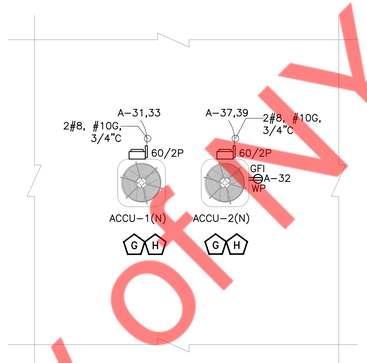
POWER PLAN–FLOOR GENERAL NOTES:

1. E.C. SHALL COORDINATE WITH THE EQUIPMENT VENDOR FOR EXACT RECEPTACLE REQUIREMENT AND WITH ARCHITECT/OWNER FOR EXACT LOCATION AND MOUNTING HEIGHT OF THE RECEPTACLES IN THE FIELD.
2. CONTRACTOR TO COORDINATE WITH ARCHITECT FOR EXACT HEIGHT OF OUTLETS.
3. E.C. SHALL COORDINATE WITH LOW VOLTAGE VENDOR FOR EXACT QUANTITY AND POWER REQUIREMENTS FOR LOW VOLTAGE EQUIPMENTS PRIOR TO ROUGH–IN. BASE BID ACCORDINGLY.
4. ALL THE WIRING SHALL BE IN COMPLIANCE WITH 2020 NEC 517.13.
5. ALL WIRING DEVICES SHALL BE LABELED WITH RESPECTIVE PANEL AND CIRCUIT NUMBER. SUBMIT LABELING TO BUILDING MANAGEMENT FOR REVIEW AND APPROVAL.
6. ALL ROOF WORK SHALL BE PERFORMED BY BUILDING ROOF CONTRACTOR AS TO MAINTAIN ROOF WARRANTY. ADD REFERENCES TO PERFORM ALL WORK IN ACCORDANCE WITH BUILDING ROOF CONTRACTOR REQUIREMENTS. DISCONNECTS SHALL BE NEMA 3R. MATCH EXISTING ROOF INSTALLATIONS.
7. MC OR AC CABLE SHALL NOT BE USED EXCEPT WHERE CONCEALED IN WALLS OR FOR CONNECTION BETWEEN LIGHT FIXTURES CONCEALED ABOVE CEILINGS. MC OR AC CABLE SHALL NOT BE USED FOR ANY FEEDER OR HOME RUN CIRCUITING.
8. PVC CONDUIT SHALL NOT BE USED AT BUILDING INTERIORS.
9. PROVIDE SMOKE DETECTORS FOR MECHANICAL UNITS SHUTDOWN REQUIREMENTS. COORDINATE WITH MECHANICAL CONTRACTOR.

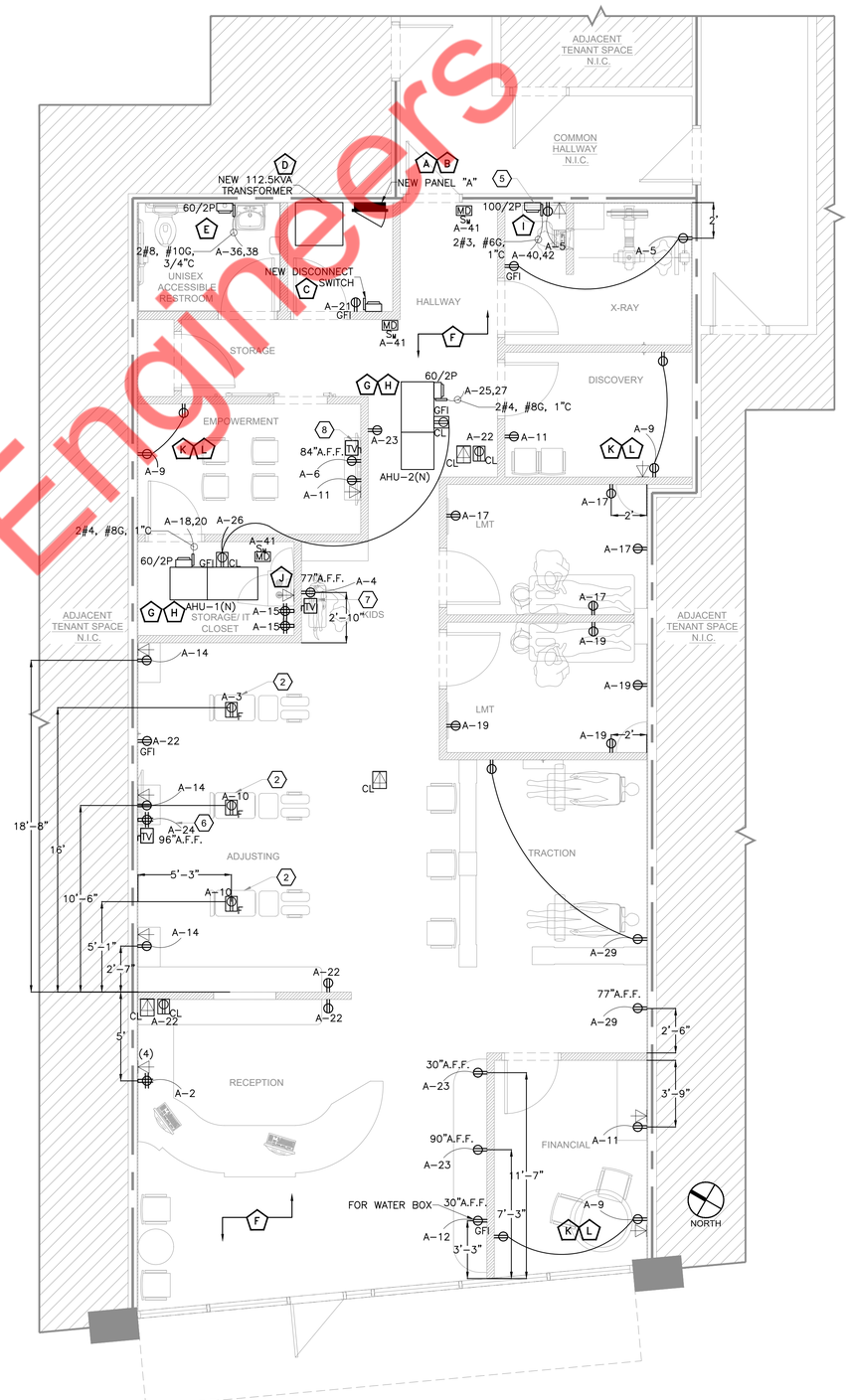


For multiple switches, parallel low voltage wiring from the switches to the powerpack and occupancy sensor.

1 E2.1 WIRING DIAGRAM
NO SCALE



HVAC ROOF PART PLAN



POWER PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

POWER & ROOF PLAN

E-3

PANEL SCHEDULE:

PANEL:	A(N)								MOUNTING:	SURFACE
208Y/120	VOLTS,	3	PHASE,	4	WIRE				LOCATION:	HALLWAY
MAIN CB	400A	MLO:	NA	BUS:	400A	MIN,			FED FROM:	NEW 112.5KVA TRANSFORMER

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	LIGHTING-X-RAY,DISCOVERY,RESTROOM,EMPOWERMEN,IT CLOSET, FINANCIAL	L	0.50	2#12, #12G, 3/4"C	0.86			2#12, #12G, 3/4"C	0.36	R	RECEPTACLE-RECEPTION DESK	20	2
3	20	ADJUSTING TABLE_#2	R	0.18	2#12, #12G, 3/4"C		0.36		2#12, #12G, 3/4"C	0.18	R	TV-CHIRO/KID/PATIENT OF THE MONTH_#7	20	4
5	20	RECEPTACLE-X-RAY ROOM	R	0.54	2#12, #12G, 3/4"C			0.72	2#12, #12G, 3/4"C	0.18	R	TV-EMPOWERMENT_#8	20	6
7	20	RECEPTACLE-SHOW WINDOW	R	1.60	2#12, #12G, 3/4"C	2.10			2#12, #12G, 3/4"C	0.50	L	LIGHTING-RECEPTION, HALLWAY,KIDS	20	8
9	20	RECEPTACLE-DISCOVERY ROOM/EMPOWRMENT ROOM/FINANCIAL ROOM	R	1.08	2#12, #12G, 3/4"C		1.44		2#12, #12G, 3/4"C	0.36	R	ADJUSTING TABLE_#2	20	10
11	20	RECEPTACLE--DISCOVERY ROOM/EMPOWRMENT ROOM/FINANCIAL ROOM	R	0.72	2#12, #12G, 3/4"C			0.90	2#12, #12G, 3/4"C	0.18	R	WATER COOLER	20	12
13	20	SIGNAGE	R	1.00	2#12, #12G, 3/4"C	1.54			2#12, #12G, 3/4"C	0.54	R	RECEPTACLE-ADJUSTING STATION _#MW-04	20	14
15	20	RECEPTACLE-IT CLOSET	R	0.72	2#12, #12G, 3/4"C		1.22		2#12, #12G, 3/4"C	0.50	R	LIGHTING- ADJUSTING,TRACTION, LMT	20	16
17	20	RECEPTACLE-LMT ROOM	R	0.72	2#12, #12G, 3/4"C			5.92	2#4, #8G, 1"C	5.20	H	AHU-1(N)	80/2P	18
19	20	RECEPTACLE-LMT ROOM	R	0.72	2#12, #12G, 3/4"C	5.92				5.20	H			20
21	20	RECEPTACLE-ELECTRICAL ROOM	R	0.18	2#12, #12G, 3/4"C		1.08		2#12, #12G, 3/4"C	0.90	R	RECEPTACLE-CEILING & GENERAL	20	22
23	20	RECEPTACLE-REFRESHMENT _#MW-02	R	0.54	2#12, #12G, 3/4"C			0.72	2#12, #12G, 3/4"C	0.18	R	TV-ADJUSTING_#6	20	24
25	80/2P	AHU-2(N)	H	5.20	2#4, #8G, 1"C	5.56			2#12, #12G, 3/4"C	0.36	R	RECEPTACLE-AHU	20	26
27			H	5.20			5.20					SPARE	20	28
29	20	RECEPTACLE-TRACTION	R	0.54	2#12, #12G, 3/4"C			0.54				SPARE	20	30
31	50/2P	ACCU-1(N)	H	3.59	2#8, #10G, 3/4"C	3.77			2#12, #12G, 3/4"C	0.18	R	RECEPTACLES-ROOF	20	32
33			H	3.59			3.68		2#12, #12G, 3/4"C	0.10	M	EF-1(N)	20	34
35	20	OAF-1(N)	M	1.21	2#12, #12G, 3/4"C			4.21	2#8, #10G, 3/4"C	3.00	O	WATER HEATER(WH)	40/2P	36
37	50/2P	ACCU-2(N)	H	3.59	2#8, #10G, 3/4"C	6.59				3.00	O			38
39			H	3.59			18.59		2#3, #6G, 1"C	15.00	R	X-RAY MACHINE_#5	100/2P	40
41	20	MOTORISED DAMPER	H	0.02	2#12, #12G, 3/4"C			15.02		15.00	R			42
TOTAL CONNECTED LOAD (KVA)						26.34	31.57	28.03						

PANEL:	1DPA1(E)								MOUNTING:	SURFACE
480Y/277	VOLTS,	3	PHASE,	4	WIRE				LOCATION:	ELECTRICAL ROOM
MAIN CB	NA	MLO:	1200A	BUS:	EXISTING	MIN,			FED FROM:	EXISTING ELECTRICAL UTILITY

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1			O	10.00		17.00				7.00	O			2
3	100/3P	KENDRA SCOTT SUITE#100	O	10.00	EXISTING		17.00		EXISTING	7.00	O	WESTLAKE DERM SUITE#155	70/3P	4
5			O	10.00				17.00		7.00	O			6
7			O	10.00		19.00				9.00	O			8
9	100/3P	FINLEY'S BARBER SUITE#165	O	10.00	EXISTING		19.00		EXISTING	9.00	O	CHP-1	125/3P	10
11			O	10.00				19.00		9.00	O			12
13			O	30.00		39.00				9.00	O			14
15	250/3P	GUILD	O	30.00	EXISTING		39.00		EXISTING	9.00	O	CHP-2	125/3P	16
17			O	30.00				42.00		12.00	O			18
19			O	5.00		20.00				15.00	O			20
21	50/3P	WINDFLOWER SUITE#145	O	5.00	EXISTING		20.00		EXISTING	15.00	O	WESTLAKE DERM SUITE#155	175/3P	22
23			O	5.00				20.00		15.00	O			24
25		SPACE				0.00						SPACE		26
27		SPACE					0.00					SPACE		28
29		SPACE						0.00				SPACE		30
31		SPACE				0.00						SPACE		32
33		SPACE					0.00					SPACE		34
35		SPACE						0.00				SPACE		36
37			O	23.67		28.67				5.00	O			38
39	225/3P	100%CHIROPRACTIC SUITE#160	O	23.67	4-4/0, #4G, 2"C.		28.67		EXISTING	5.00	O	1HA1	50/3P	40
41			O	23.67				28.67		5.00	O			42
TOTAL CONNECTED LOAD (KVA)						123.67	123.67	126.67						

LOAD CLASSIFICATION		CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
TOTAL LIGHTING	L	0.00	125%	0.00
TOTAL RECEPTACLE	R	0.00	100%	0.00
TOTAL HVAC	H	0.00	100%	0.00
TOTAL MOTOR	M	0.00	100%	0.00
TOTAL KITCHEN/EQUIPMENTS	E	0.00	100%	0.00
TOTAL OTHER/MISCILLANEOUS	O	374.00	100%	374.00

PANEL TOTAL LOAD		
TOTAL CONNECTED LOAD	374.00	KVA
TOTAL DEMAND LOAD	374.00	KVA
TOTAL CONNECTED CURRENT	1039.35	AMP
TOTAL DEMAND CURRENT	1039.35	AMP
SYSTEM VOLTAGE	120/208 Wye	

EQUIPMENT SCHEDULE:

ITEM NO.	DESCRIPTION	VOLTAGE	PHASE	AMPS	kW
2	ADJUSTING TABLE	120	1	1.50	0.18
5	X-RAY MACHINE	208	1	100	30.00
6	TV-ADJUSTING	120	1	1.50	0.18
7	TV-CHIRO-KID/PATIENT OF THE MONTH	120	1	1.50	0.18
8	TV-EMPOWERMENT	120	1	1.50	0.18
MW-02	REFRESHMENT ZONE	120	1	1.50	0.18
MW-04	ADJUSTING STATION	120	1	1.50	0.18

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

PANEL SCHEDULES
EQUIPMENT LIST

E-4

EXISTING CONTIDITONS NOTES

STOP AND READ

THE CONTRACTOR AND SUB-CONTRACTORS **SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED**. THIS SHALL HOLD TRUE FOR FIRST GENERATION AND 2ND GENERATION SPACES. WHEN DEMOLITION IS REQUIRED, THAT WILL BE PERMITTED TO EXPOSE CONDITIONS. THESE VERIFICATIONS SHALL INCLUDE BUT NOT LIMITED TO: DIMENSIONS BOTH HORIZONTALLY AND VERTICAL, ELECTRICAL SERVICE ,PANELS LOCATION AND VOLTS/PHASE, LOCATION/QTY OF ROOF MOUNTED HVAC EQUIPMENT, CONFIRM THAT INTERIOR HVAC HUNG UNITS HAVE PROPER SUPPORT CONNECTIONS FOR EXISTING STRUCTURE, FIRE SPRINKLER MAIN RUNS, TOILET ROOM DIMENSIONS, DOOR SWING FOR DOORS TO REMAIN AND ETC. IF NOT VERIFIED AND DISCOVERED AT A LATER TIME, THE CONTRACTOR SHALL REIMBURSE THE ARCHITECT FOR THE REDESIGN FEE. THIS DOES NOT INCLUDE HIDDEN WORK I.E. PITCH OF SANITARY LINES, ACTUAL CONDITIONS OF EXISTING HVAC EQUIPMENT, STRUCTURAL COLUMNS/BEARING WALLS OR CONDITIONS OF GREASE INTERCEPTORS AND ETC.

SCOPE OF WORK

PROVIDE ALL PLUMBING FOR A NEW CHIROPRACTIC FACILITY INCLUDING ALL WATER & SANITARY LINES AND CONNECT TO EXISTING UTILITIES. PROVIDE NEW ELECTRIC POINT OF USE WATER HEATER.

COORDINATE WITH GC AND MECH CONTRACTOR FOR ANY REQUIRED CONDENSING WATER LINES.

PLUMBING NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
2. PLUMBING CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THIS SET. CONTRACTOR TO VERIFY THAT ALL EQUIPMENT SHOWN AS EXISTING MATCHES THE DESCRIPTIONS AND SPECIFICATIONS SHOWN ON DRAWINGS AND SCHEDULES. IF DIFFERENT NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING OR PRECEDING WITH WORK.
3. ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION.
4. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS.
5. ALL MATERIALS SHALL BE NEW.
6. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE. ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
7. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
8. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTION AND TESTS. PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
9. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
10. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
11. VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
12. EXPOSED WATER PIPING SHALL BE TYPE "L" COPPER FOR 2" AND UNDER. WATER PIPING IN WALLS AND UNDERGROUND MAY BE "PEX" TYPE PIPING THAT MEETS ANSI/NSF STANDARD 61.
13. SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
14. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
15. FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
16. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
17. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
18. ALL FIRE RATED FLOOR AND WALL PENETRATIONS SHALL BE PROPERLY PROTECTED FROM FIRE, SMOKE AND WATER PENETRATION BY FILLING VOIDS BETWEEN PIPE AND WALL/FLOOR SLEEVES WITH FIRE RATED FOAM, TO ACHIEVE THE SAME RATING AS WALLS OR FLOORS AS PART OF THE PLUMBER'S WORK.
19. PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF CERTIFICATE OF OCCUPANCY. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE WITHIN 72 HOURS OF NOTIFICATION AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
20. STUD OR MINI/MAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
21. PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
22. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
23. NO WATER, SANITARY OR DRAINAGE PIPING PERMITTED IN ELECTRICAL OR ELEVATOR EQUIPMENT ROOMS.
24. WATER PIPING INSULATION SHALL BE 1" THICK ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS FOR ALL HOT WATER PIPING. WHERE DOMESTIC WATER TEMPERATURES CAN CAUSE SWEATING, ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
25. CONDENSATE DRAIN LINES TO BE RUN UNDER SLAB IN PVC SCH40 PIPE AND STUBBED OUT OF WALL TO UNIT. TIE-IN OF A/C TO BE BY OTHERS. PVC PIPING WITH 1/2" THICK ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
26. PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
27. NO JOINTS UNDERGROUND FOR COPPER.
28. PLUMBING FIXTURES SHALL COMPLY WITH 2021 UNIFORM PLUMBING CODE.
29. WATER HAMMER ARRESTORS AS PER 2021 UNIFORM PLUMBING CODE.
30. PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
31. PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
32. CONSTRUCTION "AS BUILT" DRAWINGS AND DOCUMENTS SHALL BE PROVIDED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF ACCEPTANCE.
33. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.

FIXTURE BRANCH SCHEDULES

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
LAVATORY	1/2"	1/2"	2"	1-1/2"
WATER CLOSET	1/2"	-	4"	2"
FLOOR DRAIN	-	-	3"/4"	2"
APP.WATER SUPPLY BOX	1/2"	-	-	-

PLUMBING LEGEND

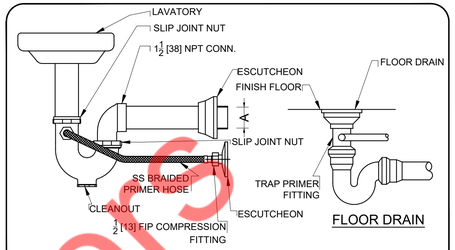
—SAN—	SANITARY SEWER PIPING
—V—	VENT PIPING
EX.V	EXISTING VENT PIPING
	DOMESTIC COLD WATER PIPING
	HOT WATER PIPING
EX.CW	EX.DOMESTIC COLD WATER PIPING
	PIPE UP
	PIPE DOWN
	P-TRAP
S.O.V.	SHUT-OFF VALVE
CW	DOMESTIC COLD WATER
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
WCO	WALL CLEAN OUT
	ISOLATION VALVE
	SECONDARY BACKFLOW PREVENTER
FD	FLOOR DRAIN
FCO	FLOOR CLEAN OUT
	POINT OF CONNECTION

LANDLORD NOTES

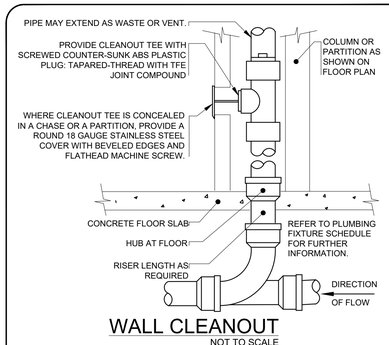
1. CONTRACTOR TO MAKE SURE THAT RESTRICTIONS ON CONSTRUCTION HOURS AND CONDUCTING CERTAIN CONSTRUCTION ACTIVITIES SHOULD BE COORDINATED WITH THE LANDLORD. COORDINATE REQUIREMENTS WITH THE LANDLORD AND THE ARCHITECT.
2. CONTRACTOR TO MAKE SURE THAT DRAWINGS FOR INSTALLATION TO CONFORM TO SHELL BUILDING STANDARDS AND SPECIFICATIONS.
3. CONTRACTOR SHALL MAINTAIN ON SITE SET OF AS-BUILT DRAWINGS, WHICH SHALL BE PROVIDED IN BOTH CAD AND PDF FORMAT, IN ADDITION TO HARD-COPIES UPON PROJECT COMPLETION.
4. CONTRACTOR TO VERIFY COMPLIANCE WITH LEED TENANT REQUIREMENTS.
5. ALL ROOF WORK SHALL BE PERFORMED BY BUILDING ROOF CONTRACTOR AS TO MAINTAIN ROOF WARRANTY. ADD REFERENCES TO PERFORM ALL WORK IN ACCORDANCE WITH BUILDING ROOF CONTRACTOR REQUIREMENTS. MATCH EXISTING ROOF INSTALLATIONS.
6. IF THE DEMISING WALLS ARE RATED, THEN ADDITIONAL DAMPERS ARE REQUIRED. CONFIRM RATING REQUIREMENTS AT WALLS BETWEEN TENANTS.

PLUMBING FIXTURE SCHEDULE

Item No.	Qty.	Description	MANUFACTURER	MODEL	WATER Hot	WATER Cold	WASTE Direct	Usage	Spec
A	1	WATER CLOSET	AMERICAN STANDARD	2989.101.020		1/2"	4"		
	1	ELONGATED SEAT	AMERICAN STANDARD	EXTRA HD COMMERCIAL TOILET SEA					
B	1	LAVATORY	AMERICAN STANDARD	0355.012.020	1/2"	1/2"	2"		
B1	1	LAVATORY FAUCET	AMERICAN STANDARD	SELECTRONIC	1/2"	1/2"			
	-	THERMAL MIXING VALVES	WATTS	LFMMV	1/2"	1/2"			
		INSULATED PLUMBING COVERS	PLUMBEREX	HANDI SHIELD					
C1	1	WATER COOLER	AVALON	B8BLK	-	1/2"			
WH	1	NEW WATER HEATER	SEE SCHEDULE	SEE SCHEDULE					
FD	2	FLOOR DRAIN	ZURN	ZS415 W/ TYPE BS STRAINER			3"/4"		



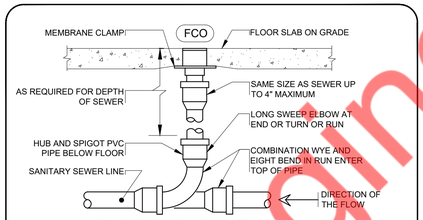
TRAP RESEAL DETAIL
NOT TO SCALE



WALL CLEANOUT
NOT TO SCALE

WALL CLEANOUT DETAIL NOTES

1) PROVIDE WCO WHERE SHOWN ON PLANE, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT
2) LOCATE ABOVE FIXTURE FLOOR RIM WITHIN 4' OF FLOOR.
3) CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS.
4) LONG SWEEP AT END OF LINE OR COMBINATION WYE AND EIGHT BEND IN RUN OF LINE
5) CLEAN OUT FACE SHALL BE WITHIN 4" OF WALL SURFACE. PROVIDE A PIPE EXTENSION IF REQUIRED



FLOOR CLEANOUT
NOT TO SCALE

FLOOR CLEANOUT DETAIL NOTES

1) LOCATE CLEANOUT AT THIS LOCATIONS:
A) BUILDING EXIT
B) AT TURNS OF PIPES GREATER THAN 45 DEGREES
C) AT 90' INTERVALS ON STRAIGHT RUNS
D) WHERE IS SHOWN ON PLANS
E) WHERE IS 18" CLEAR AROUND

ENERGY CONSERVATION NOTES

1. AS PER 2021 INTERNATIONAL ENERGY CONSERVATION CODE C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE OF MINIMUM PIPE INSULATION THICKNESS C403.12.3

MINIMUM PIPE INSULATION THICKNESS

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (INCHES)		
	CONDUCTIVITY BTU· IN./ (H· FT2· °F)	MEAN RATING TEMPERATURE, °F	<1	1 to < 1½	1½ to < 4
141-200	0.25-0.29	125	1.5	1.5	2.0
105-140	0.21-0.28	100	1.0	1.0	1.5
40-60	0.21-0.27	75	0.5	0.5	1.0

2. HOT WATER SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2021 INTERNATIONAL ENERGY CONSERVATION CODE C404.5.1. THE HOT WATER VOLUME FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER MAXIMUM PIPING LENGTH TABLE.

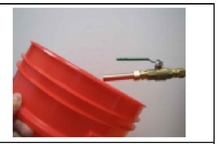
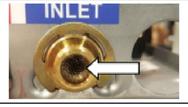
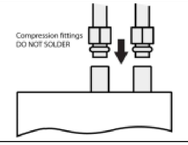
NOMINAL PIPE SIZE (INCHES).	MIXIMUM PIPING LENGTH (FEET) PUBLIC LAV	OTHER FIXTURES
⅜"	3'	50'
½"	2'	43'
¾"	0.5'	21'
1"	0.5'	13'
1¼"	0.5'	8'
1½"	0.5'	6'
2" OR LARGER	0.5'	4'

3. AS PER 2021 INTERNATIONAL ENERGY CONSERVATION CODE C404.6.1, AUTOMATIC CONTROLS SHALL BE INSTALLED THAT LIMITS THE OPERATION OF A RECIRCULATING PUMP AND THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).

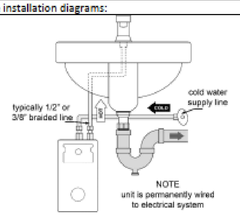
FIRE PROTECTION GENERAL NOTES

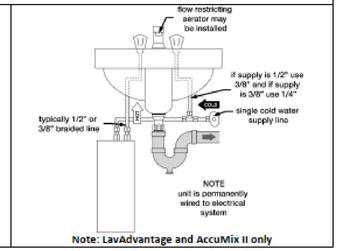
1. THE SPRINKLER CONTRACTOR SHALL RELOCATE EXISTING SPRINKLER HEADS AND PIPING, AND SHALL PROVIDE NEW SPRINKLER HEADS AND PIPING AS REQUIRED TO PROVIDE FULL COVERAGE OF THIS LEASE SPACE IN STRICT ACCORDANCE WITH NFPA-13, AND THE CURRENTLY ADOPTED EDITION OF THE INTERNATIONAL FIRE CODE (IFC) ASAMENDED BY THE CITY OF AUSTIN.
2. THE SPRINKLER CONTACTOR SHALL REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN TO DETERMINE EXACT LOCATIONS OF ALL SPRINKLER HEADS. LOCATION OF SPRINKLER HEADS IN LOBBIES AND HIGH-FINISH AREAS TO BE DETERMINED BY ARCHITECT. CONTRACTOR SHALL VERIFY LOCATIONS MEET CODE REQUIREMENTS. NOTIFY THE ARCHITECT OF ANY CHANGES NECESSARY TO COMPLY WITH CODE.
3. PROVIDE CONCEALED TYPE SPRINKLER HEADS. CENTER SPRINKLER HEADS IN ALL CEILING TILES. COORDINATE EXACT LOCATION OF SPRINKLER HEADS IN SHEETROCK CEILINGS WITH ARCHITECT.
4. RELOCATE EXISTING SPRINKLER HEADS AND PIPING WHERE REQUIRED BY CONFLICTS WITH LIGHT FIXTURES, CEILING HEIGHTS, AND DIVISON 15 EQUIPMENT.
5. THE SPRINKLER CONTRACTOR SHALL ALLOW A 10 PSIG SAFETY FACTOR (CUSHION) IN THE HYDRAULIC CALCULATIONS. (I.E., 10 PSIG SHALL BE DEDUCTED FROM THE RESIDUAL FLOW TEST DATA).
6. THE APPROVED FIRE SPRINKLER CONTRACTOR SHALL BE LICENSED PER THE STATE FIRE MARSHAL'S REQUIREMENTS. THE APPROVED CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE AUSTIN FIRE DEPARTMENT PLAN REVIEW OFFICE FOR REVIEW AND APPROVAL. ALLOW MINIMUM FIVE(5) WORKING DAYS FOR REMODELED SYSTEMS. AND FIFTEEN (15) WORKING DAYS FOR NEW SYSTEMS PLAN REVIEWS. REVIEW TIMES MAY BE LONGER DEPENDING ON WORK LOAD.

⚠WARNING ***BEFORE ATTEMPTING ANY INSTALLATION, MODIFICATION OR SERVICE OF THIS HEATER, MAKE SURE THE ELECTRICAL POWER IS DISCONNECTED.***

The heater's water INLET and OUTLET are labeled. Install full flow ball valves to the inlet and outlet pipes and run water through the inlet pipe into a bucket to purge it of any debris. Close the inlet ball valve. ***Failure to do so may clog the inlet water screen.**	
Make sure the inlet filter screen is present in the inlet fitting and the inlet and outlet pipes are correctly aligned with the heater connections to minimize stress on the heater.	
Remove the cover. Connect the pre-assembled inlet and outlet pipes to the heater **(do not overtighten compression fittings)** and fully open the inlet and outlet ball valves. Check the system for water leaks at all plumbing connections. If a leak is present at the compression fitting, **slowly** tighten compression nut until it stops – **do not overtighten**.	

Sample installation diagrams:





Note: LavAdvantage and AccuMix II only

INSTANTANEOUS WATER HEATER DETAIL
NOT TO SCALE

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

GENERAL NOTES, SCHEDULES & DETAILS

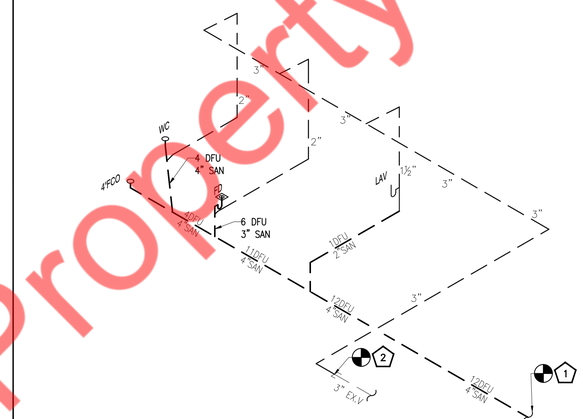
P-1

GENERAL NOTES

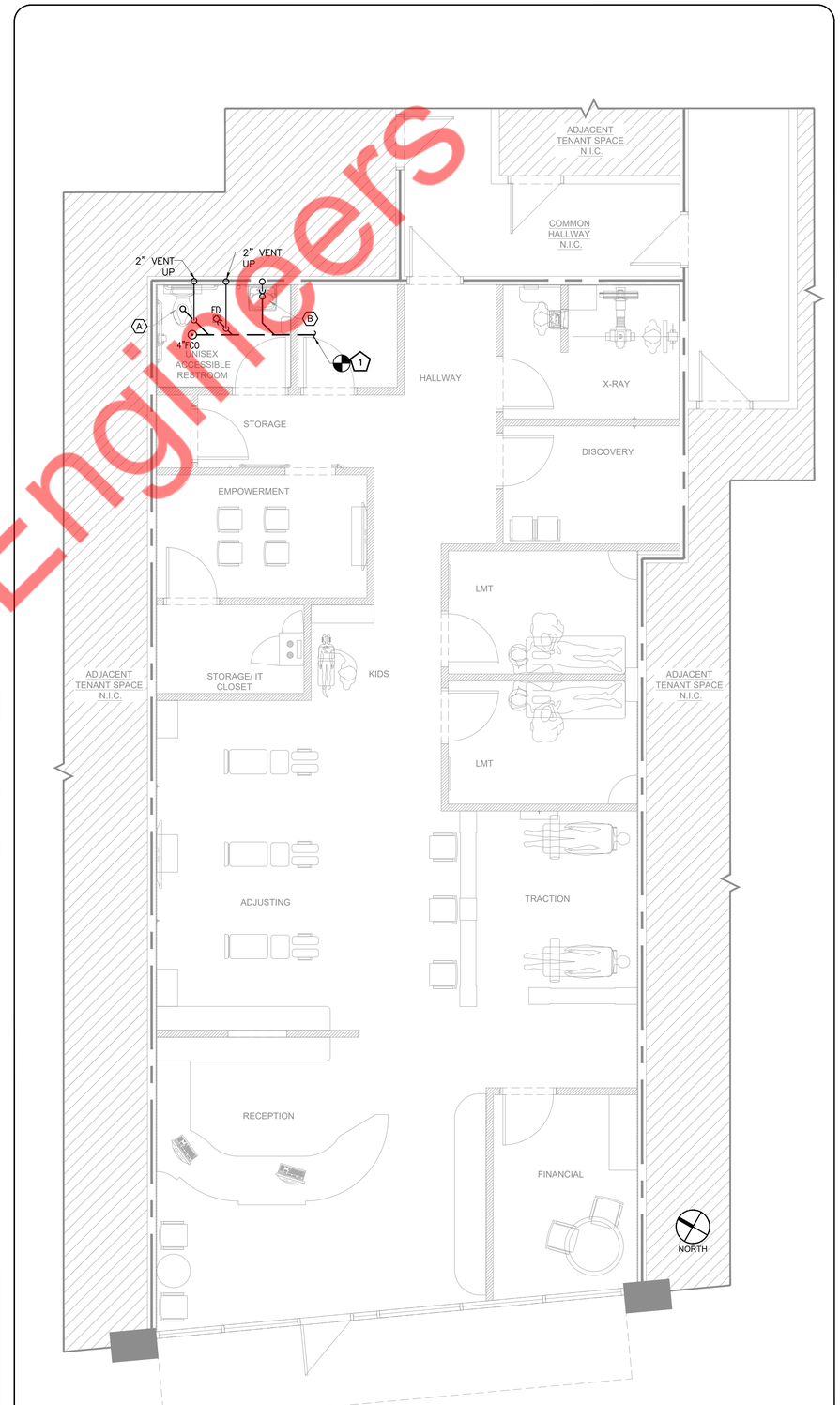
1. UNLESS OTHERWISE NOTED, SLOPE OF DRAINAGE SYSTEM TO BE 1/8" PER FOOT FOR PIPE OVER 4" AND 1/4" PER FOOT FOR PIPE 4" AND SMALLER UNLESS OTHERWISE APPROVED BY AHJ.
2. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
3. ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
4. PROVIDE ACCESS PANELS FOR CLEANOUTS AS REQUIRED.
5. PROVIDE TRAP PRIMER FOR ALL FLOOR DRAINS.

SANITARY PLAN KEY NOTE

1. CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY WASTE LINE OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT ON SITE.
2. CONNECT NEW 3" VENT PIPING TO EXISTING VENT PIPING OF ADEQUATE SIZE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING VENT PIPING.



SANITARY RISER | SCALE N.T.S. | 2



SANITARY PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

SANITARY PLAN & RISER

P-2

WATER HEATER SCHEDULE	
MANUFACTURER	EEMAX
MODEL	SPEX4208T
EQUIPMENT TAG	WH
STATUS	NEW
CAPACITY	0 GALLON
FUEL	ELECTRIC
HEATING ELEMENT	-
KW	4.1
GPM	0.5**
EFFICIENCY	0.98
VOLTAGE	208/1/60
AMPERAGE	20
WEIGHT (EMPTY)	4 LBS.

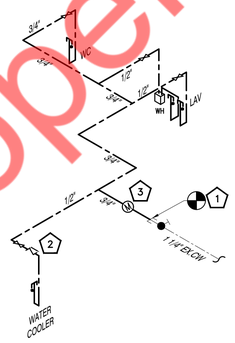
NOTES
1. @ 56° F TEMPERATURE RISE
2. COORDINATE WITH ARCHITECT FOR COVERING OF WATER HEATER IF REQUIRED.

GENERAL NOTES

1. CW/HW PIPING TO BE PROVIDED WITH INSULATION AS PER 2021 INTERNATIONAL ENERGY CONSERVATION CODE (REFER SHEET P-1)
2. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
3. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.

WATER PIPING KEY NOTE

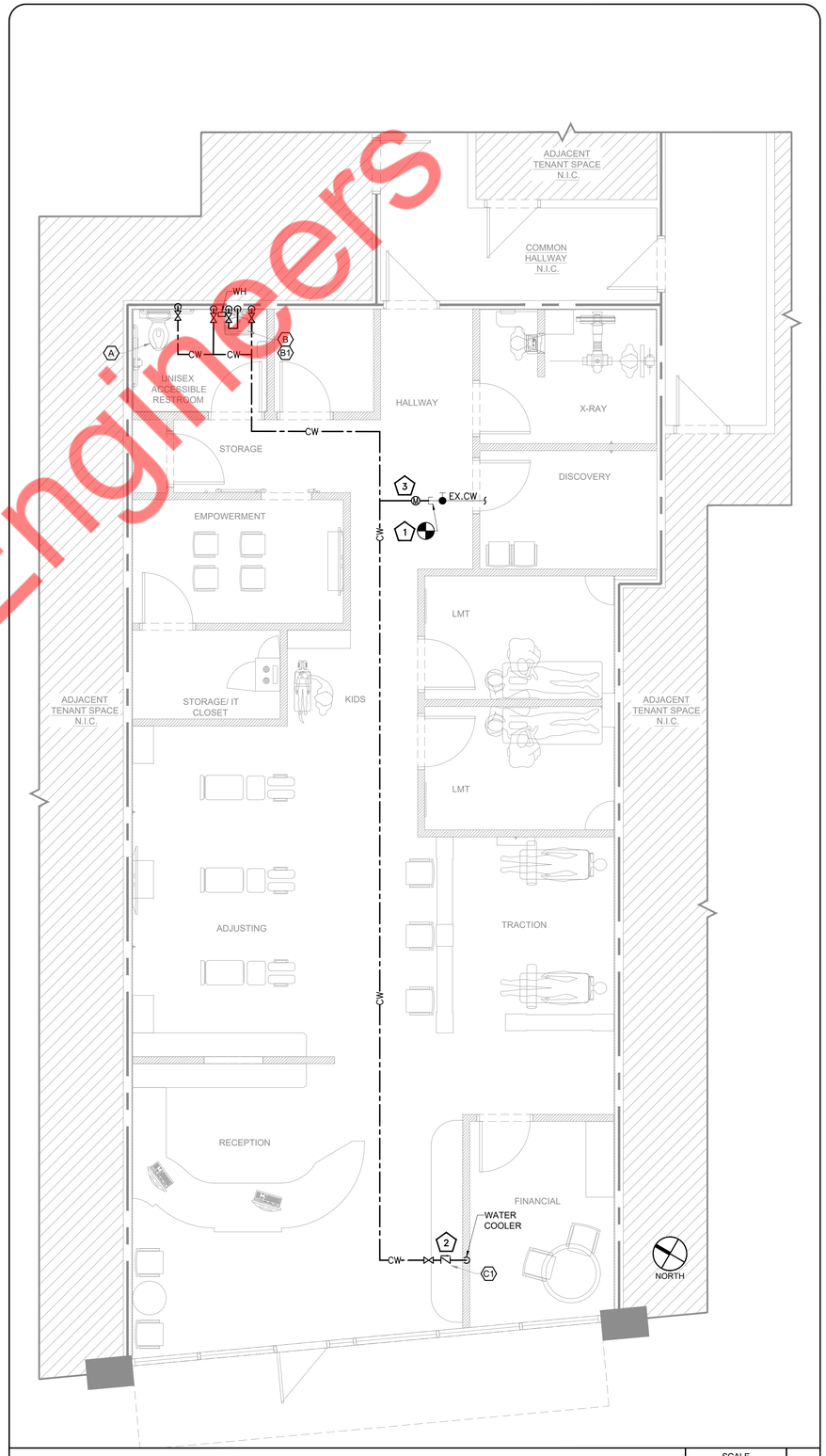
1. CONNECT NEW 3/4" CW LINE TO EXISTING WATER MAIN LINE. PROVIDE 3/4" BFP AND 3/4" WATER METER AS PER LOCAL BUILDING CODE IF NOT PROVIDED.
2. CONTRACTOR TO PROVIDE SECONDARY BFP OF WATTS MODEL SD3 CONFIRMING TO ASSE 1022 STANDARDS.
3. CONTRACTOR TO PROVIDE NEW 3/4" WATER SUB METER THAT SHOULD BE TIED TO BUILDING AUTOMATION SYSTEM. COORDINATE SPECIFICATIONS WITH LANDLORD. SIMILAR TO BADGER RECORDALL MODEL RCDL WITH MODEL RTR RECORDALL TRANSMITTER REGISTER.



FIXTURE FACTOR VALUE *	
1 WATER CLOSETS (N) @ 2.5	= 2.5
1 LAVATORIES (N) @ 1	= 1
1 APP. WATER SUPPLY BOX @ 2	= 2
TOTAL	= 5.5

* PER TABLE 610.3
IN 2021 UNIFORM PLUMBING CODE
3/4" Ø WATER METER AND
MIN. 3/4" Ø LINE REQUIRED

WATER RISER | SCALE N.T.S. | 2



WATER PLAN | SCALE 1/4" = 1'-0" | 1

NY ENGINEERS

PROJECT

100% CHIROPRACTIC

REVISIONS DATES:

WATER PLAN & RISER

P-3