SCOPE OF WORK

REPLACE THE EXISTING ONE TRANE 20 TON ROOF TOP UNIT WITH ONE NEW 25 TON UNIT ROOF TOP UNIT WITH ELECTRIC HEAT AND REPLACE ALL THE EXISTING THREE 5.0 AIR HANDLING UNIT WITH ELECTRIC HEAT AND CONDENSING UNIT WITH NEW THREE 5.0 TON AIR HANDLING UNIT WITH ELECTRIC HEAT AND CONDENSING UNITS. REUSE ALL THE EXISTING DUCTWORK AND ITS ACCESSORIES LIKE DIFFUSER AND DAMPERS.

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

MECHANICAL PLAN NOTES

- REPLACE THE EXISTING ONE TRANE 20 TON ROOF TOP UNIT WITH ONE NEW 25 TON UNIT ROOF TOP UNIT WITH ELECTRIC HEAT AND REPLACE ALL THE EXISTING THREE 5.0 AIR HANDLING UNIT WITH ELECTRIC HEAT AND CONDENSING UNIT WITH NEW THREE 5.0 TON AIR HANDLING UNIT WITH ELECTRIC HEAT AND CONDENSING UNITS. REUSE ALL THE EXISTING DUCTWORK AND ITS ACCESSORIES LIKE DIFFUSER AND DAMPERS. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN AIR DUCT CONNECTIONS. INSTALL FIRE DAMPERS IN ANY FIRE WALLS AND BETWEEN FLOORS. 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.
- 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.
- ALL DUCTS SHALL BE MINIMUM 26 GAUGE SHEET METAL WITH EXTERNAL DUCT WRAP INSULATION FOR CONCEALED DUCTS AND ALL EXPOSED DUCTS WITH INTERNAL INSULATION. ALL DUCTS TO BE MANUFACTURED AND INSTALLED ACCORDING TO ASHRAE AND SMACNA METAL DUCT CONSTRUCTION STANDARD, LATEST EDITION. ALL MATERIALS WILL CONFORM TO NFPA
- 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
- THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT 48" A.F.F. IF EXISTING THERMOSTAT AND REMOTE SENSOR ARE NOT REUSABLE THEN PROVIDE NEW THERMOSTAT WITH LOCKABLE COVER. COORDINATE LOCATION OF THERMOSTAT. PROVIDE REMOTE SENSOR LOCATED 72" ABOVE FINISHED FLOOR NEAR LOCATION INDICATED. SEAL WALL OPENINGS WITH CAULK. COORDINATE LOCATION ON SITE WITH GENERAL CONTRACTOR AND
- ALL INDOOR DUCT AND PLENUM INSULATION SCHEDULE;
- CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION:
- FLEXIBLE ELASTOMERIC, MINERAL-FIBER BLANKET, MINERAL-FIBER BOARD OR POLYOLEFIN WITH MINIMUM INSTALLED THERMAL RESISTANCE AS FOLLOWS:

		SA PLENUM	RA PLENUM
	UNCONDITIONED SPACES:	R-4.2	R-4.2
	UNVENTED ATTIC ABOVE INSULATED CEILING:	R-6	R-4.2
ı	EXTERIOR OF BUILDING:	R-6	R-4.2

- 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.
- ALL EVAPORATOR UNITS SHALL HAVE A FLOAT SWITCH TO CONTROL OVERFLOW THAT WILL AUTOMATICALLY SHUT DOWN THE HVAC SYSTEM. THE DEVICE SHALL BE ATTACHED TO THE SECONDARY DRAIN OUTLET ON THE UNIT.
- ALL CONDENSATE DRAINS WILL BE PVC FULL DIAMETER OF OUTLET AND WILL TERMINATE IN THE NEAREST APPROVED PLACE OF DISPOSAL.
- ALL EQUIPMENT AND MATERIALS WILL BE INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.
- TESTING AND BALANCING SHALL BE DONE IN ACCORDANCE WITH 2020 FBC ENERGY CONSERVATION, 7TH EDITION 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
- 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.
- ALL HVAC CONTROLS AND CONTROL WIRING SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.

FLORIDA BUILDING DEPARTMENT NOTES

- ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF THE 2020 FLORIDA BUILDING CODE 7TH EDITION. AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.
- ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.

FLORIDA MECHANICAL CODE 7TH EDITION:

- VENTILATION FOR ALL AREA SHALL COMPLY WITH 2020 FLORIDA MECHANICAL CODE 7TH EDITION, CHAPTER 4.
- 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.
- A. VENTILATION SYSTEM BALANCING 2020 FLORIDA MECHANICAL CODE 7TH EDITION 403.3
- THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:

TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2020

- A. STANDARDS OF HEATING 2020 FLORIDA MECHANICAL CODE 7TH EDITION 309.1
- B. DUCT CONSTRUCTION AND INSTALLATION 2020 FLORIDA MECHANICAL CODE 7TH EDITION 603 AIR INTAKES, EXHAUSTS AND RELIEF 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 401.5 D. AIR FILTERS 2020 FLORIDA MECHANICAL CODE 7^{1H} EDITION - 605
- MANUAL AND AUTOMATIC FIRE AND SMOKE CONTROLS FOR AIR DISTRIBUTION SYSTEMS 2020 FLORIDA MECHANICAL CODE 7TH EDITION - 606
- MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
- 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 2020
- FLORIDA MECHANICAL CODE 7TH EDITION REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND
- 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 EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
-). MECHANICAL SYSTEMS SHALL BE COMMISSIONED PER FLORIDA ENERGY CODE 2020 C408.2, C408.2.1, C408.2.5 FINAL COMMISSIONING REPORT SHALL BE DUE WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY.
- APPROVED AGENCY.

. A COMMISSIONING PLAN SHALL BE DEVELOPED BY A LICENSED DESIGN PROFESSIONAL, MECHANICAL ENGINEER OR

- . A PRELIMINARY REPORT OF COMMISSIONING TEST PROCEDURES AND RESULTS SHALL BE COMPLETED AND CERTIFIED BY THE LICENSED DESIGN PROFESSIONAL, ELECTRICAL ENGINEER, MECHANICAL ENGINEER OR APPROVED AGENCY AND PROVIDED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT AS PER FLORIDA ENERGY CODE 2020
- 3. A FINAL REPORT OF TEST PROCEDURES AND RESULTS IDENTIFIED AS "FINAL COMMISSIONING REPORT" SHALL BE DELIVERED TO THE BUILDING OWNER OR OWNER'S AUTHORIZED AGENT. THE REPORT SHALL BE ORGANIZED WITH MECHANICAL SYSTEM AND SERVICE HOT WATER SYSTEM FINDINGS IN SEPARATE SECTIONS TO ALLOW INDEPENDENT
- 4. A WRITTEN REPORT DESCRIBING THE ACTIVITIES AND MEASUREMENTS COMPLETED IN ACCORDANCE WITH SECTION FLORIDA ENERGY CODE 2020 C408.2.5.1.
- 5. SMOKE DETECTOR SHALL MEET UL268A.

GENERAL NOTES

- 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.
- 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.
- 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.
- 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
- 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
- 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
- ALL A/C AND FRESH AIR ROUND EXPOSED DUCTS WILL BE SPIRAL GALVANIZED AND READY FOR PAINTING. ALL
- RECTANGULAR DUCTS OVER CEILINGS MAY BE SHEET METAL WITH EXTERNAL INSULATION. G.C. SHALL CONTRACT LANDLORD-APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF
- REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK. 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. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER.

THERMOSTATIC CONTROLS

PENETRATIONS TO MAINTAIN ROOFING WARRANTY.

C403.2.4 HVAC SYSTEM CONTROLS

- EACH HEATING AND COOLING SYSTEM SHALL BE PROVIDED WITH THERMOSTATIC CONTROLS AS SPECIFIED IN SECTION C403.2.4.1, C403.2.4.1.3, C403.2.4.2, C403.2.4.3, C403.2.12.5, C403.3.1, C403.4, OR C403.4.4.
- 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, AT LEAST 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: 1. THE PERIMETER SYSTEM INCLUDES AT LEAST 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); AND 2. THE PERIMETER SYSTEM HEATING AND COOLING SUPPLY IS CONTROLLED BY THERMOSTATS LOCATED WITHIN THE ZONES SERVED BY THE SYSTEM.
- WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A TEMPERATURE RANGE OR DEADBAND OF AT LEAST 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS CAPABLE OF BEING SHUT OFF OR REDUCED TO A
- **EXCEPTIONS:** 1. THERMOSTATS REQUIRING MANUAL CHANGEOVER BETWEEN HEATING AND COOLING MODES.
- 2. OCCUPANCIES OR APPLICATIONS REQUIRING PRECISION IN INDOOR TEMPERATURE CONTROL A APPROVED BY THE CODE OFFICIAL. C403.2.4.1.3 SET POINT 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 PROVIDED WITH THE CAPABILITY TO PREVENT THE HEATING SET POINT FROM EXCEEDING THE COOLING SET POINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.2.4.1.2. C403.2.4.2 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.
- 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 READILY ACCESSIBLE MANUAL SHUTOFF SWITCH.
- C403.2.4.2.1 THERMOSTATIC SETBACK CAPABILITIES THERMOSTATIC SETBACK CONTROLS SHALL HAVE THE CAPABILITY 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).
- C403.2.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN CAPABILITIES 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 AT LEAST 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 CAPABLE OF BEING ADJUSTED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN
- OCCUPANCY SENSOR. C403.2.4.2.3 AUTOMATIC AND OPTIMUM START CAPABILITIES (MANDATORY)
- 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. INDIVIDUAL HEATING AND COOLING SYSTEMS WITH SETBACK CONTROLS AND DIRECT DIGITAL CONTROL SH HAVE OPTIMUM START CONTROLS. THE CONTROL ALGORITHM SHALL, AS A MINIMUM, BE A FUNCTION OF THE DIFFERENCE BETWEEN SPACE TEMPERATURE AND OCCUPIED SET POINT, THE OUTDOOR TEMPERATURE, AND THE AMOUNT OF TIME PRIOR TO SCHEDULED OCCUPANCY. MASS RADIANT FLOOR SLAB SYSTEMS SHALL INCORPORATE FLOOR TEMPERATURE INTO THE OPTIMUM START ALGORITHM.

EXISTING CONDITION NOTES

THE CONTRACTOR AND SUB CONTRACTOR SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED. THIS SHALL HOLD TRUE FOR FIRST GENERATION AND SECOND GENERATION SPACES WHEN DEMOLITION IS REQUIRED. THAT WILL BE PERMITTED TO EXPOSE CONDITIONS. THESE VERIFICATIONS SHALL INCLUDE BUT NOT LIMITED TO: DIMENSIONS BOTH HORIZONTAL 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 REMAINED 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

ROOF TOP UNIT	SCHEDULE		LIEAT DUMD OD	LIT CVCTEM C	CUEDULE	
TAG	RTU-1(N)		HEAT PUMP SP	LII SYSTEM S	CHEDULE	
QUANTITY	1		UNIT TAG	AHU-1(N)	AHU-2(N)	AHU-3(N)
UNIT	ELECTRIC HEAT		UNIT TYPE	HEAT PUMP	HEAT PUMP	HEAT PUMP
MANUFCATURER	TRANE		AREA SERVED	REFER PLAN	REFER PLAN	REFER PLAN
MODEL	TSJ240A3S00		SUPPLY AIR (CFM)	1700	1700	1700
STATUS	NEW		OUTSIDE AIR (CFM)	200	200	200
MOUNTING	FLOOR	TA AT	STATIC PRESS. (E.S.P INCH OF W.C.)	0.6	0.6	0.6
NOMINAL CAPACITY	20.0 TON	AIR HANDLER DATA	MANUFACTURER	TRANE	TRANE	TRANE
TOTAL COOLING CAPACITY	246.13	DLE	MODEL NO.	TEM4B0C60S51SA	TEM4B0C60S51SA	TEM4B0C60S51SA
SENSIBLE COOLING CAPACITY	186.58	HAN	WEIGHT, LBS	200	200	200
EER/IEER	10.0/13.2	AIR I	VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60
ELECTRIC HEAT (kW)	NA		ELECTRIC HEATER	9.6 kW	9.6 kW	9.6 kW
ESP (IN. H2O)	0.75		VOLTS/PH/HZ	208-230/1/60	208-230/1/60	208-230/1/60
SUPPLY CFM	8000		MCA (A)	58.0	58.0	58.0
OUTDOOR AIR CFM	1620		MOCP (A)	60.0	60.0	60.0
VOLTAGE/PHASE			UNIT TAG	ACCU-1 (N)	ACCU-2(N)	ACCU-3(N)
	208-230/60/3		AIR HANDLER SERVED	AHU-1(N)	AHU-2(N)	AHU-3(N)
MCA (A)	108.0		CAPACITY	5.0 TR	5.0 TR	5.0 TR
MCB (A)	125.0		REFRIGERANT	R410A	R410A	R410A
WEIGHT (LBS)	1950		TOT. COOLING CAP. (MBH)	57.3	57.3	57.3
NOTES FOR RTU-1(N): 1. REPLACE EXISTING RTU W	ITH NEW RTU LOCATION	NG UNIT DATA	COOLING SENS. CAP. (MBH)	41.3	41.3	41.3
TO USE SAME AS PREVIOUS	S.		COMPRESSOR RLA/LRA	21.9/118.7	21.9/118.7	21.9/118.7
 PROVIDE FULL PERIMETER 1 PROVIDE 2" MERV-8 FILTER 	4" HIGH ROOF CURB	5	OUTDOOR FAN FLA	0.97	0.97	0.97
4. PROVIDE HINGED PANEL F			VOLTS/PH/HZ	208-230/3/60	208-230/3/60	208-230/3/60
MOTOR ACCESS, COMP CONTROL COMPARTMENT A		CONDENS	M.C.A. / MAX. CKT. BRKR. AMPS	34/60	34/60	34/60
5. CONTRACTOR TO PROVIDE		NO.	MANUFACTURER	TRANE	TRANE	TRANE
THERMOSTAT FOR RTU	- I(IV) WITH HUMIDITY		MODEL	4TTR4060N1000B	4TTR4060N1000B	4TTR4060N1000B
6. PROVIDE HAIL GUARD. 7. PROVIDE NON FUSED DISCO	NNIECT SWITCH		SEER	14.3	14.3	14.3
8. PROVIDE WITH TUBE & COIL			WEIGHT, LBS	300	300	300

SPLIT SYSTEM NOTES:-

- . 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. 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. 8. PROVIDE DRAIN PAN WITH WATER LEAK DETECTOR.
- DEEP OR TWICE THE TOTAL STATIC PRESSURE 9. VERIFY ALL DATA WITH MANUFACTURER PRIOR TO ORDERING EQUIPMENT
 - 10. PROVIDE CONDENSATE DRAIN PUMP IF REQUIRED. REUSE THE EXISTING CONDENSATE DRAIN POINT. COORDINATE WITH PLUMBING CONTRACTOR.

MECHANICAL SCHEDULES	SCALL	4
MECHANICAL SCHEDOLES	N.T.S.	

HVAC PIPING INSULATION NOTES

9. PROVIDE WITH STANDARD CAP AND PHASE MONITOR

12.UNIT TO BE PROVIDED WITH LOW AMBIENT

1. INSTALL AS PER MANUFACTURERS SPECIFICATIONS

2. PROVIDE CONDENSATE DRAIN 'P' TRAP MINIMUM 3"

3. COMPRESSOR SHALL HAVE A MINIMUM 5 YEAR

WARRANTY ALL OTHER EQUIPMENT SHALL HAVE,

4. RTU IS BASED ON AHRI STANDARD CONDITIONS OF

80°F DB, 67°F WB INDOOR ENTERING AIR

TEMPERATURE AND 95°F DB ENTERING AIR FOR

5. MUST MEET THE EER'S MINIMUM EFFICIENCY CODE

ASSOCIATED CONTROLS AND SENSORS FOR

CONTRACTOR SHALL VERIFY EXACT ELECTRICAL CONNECTIONS, WIRE SIZES, BREAKERS, DISCONNECT

13. PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT.

AND MAINTAIN ALL SERVICE CLEARANCES.

10. PROVIDE WITH GFCI FLD WIRED 11.PROVIDE MEDIUM STATIC DRIVE

OPERATION CAPABILITIES

14.PROVIDE HOT GAS BYPASS.

WHICHEVER IS GREATER.

MINIMUM 1 YEAR WARRANTY.

DEHUMIDIFICATION CONTROL.

ETC. PRIOR TO ORDERING AND BID.

REQUIREMENTS.

PROVIDE: TRANE

- 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.
- VISIBLE WITHOUT REMOVING CEILINGS OR OPENING ACCESS PANELS.
- CONCEALED: INDOOR PIPING OR EQUIPMENT WHICH IS NOT EXPOSED.

OUTDOOR: PIPING OR EQUIPMENT WHICH IS EXPOSED TO THE WEATHER.

	MINIMU	JM REFRIGERANT	Γ PIPE INSULA	OITA	N THICKN	ESS (IN.)		
FI	LUID OP <mark>ERA</mark> TING	INSULATION CON	IDUCTIVITY	ı	NOMINAL PIF	E OR TUBE	SIZE (IN.)	
	EMP. RANGE & SAGE (°F)	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
	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

EXPOSED: INDOOR DUCTS, PIPING OR EQUIPMENT LOCATED IN MECHANICAL EQUIPMENT ROOMS AND IN AREAS WHICH WILL BE

MINIMU	JM REFRIGERAN	Γ PIPE INSULA	OITA	N THICKN	ESS (IN.)							
PERATING ANGE & °F)	INSULATION CON	IDUCTIVITY	NOMINAL PIPE OR TUBE SIZE (IN.)									
ANGE & °F)	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					
— 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					



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PROJECT

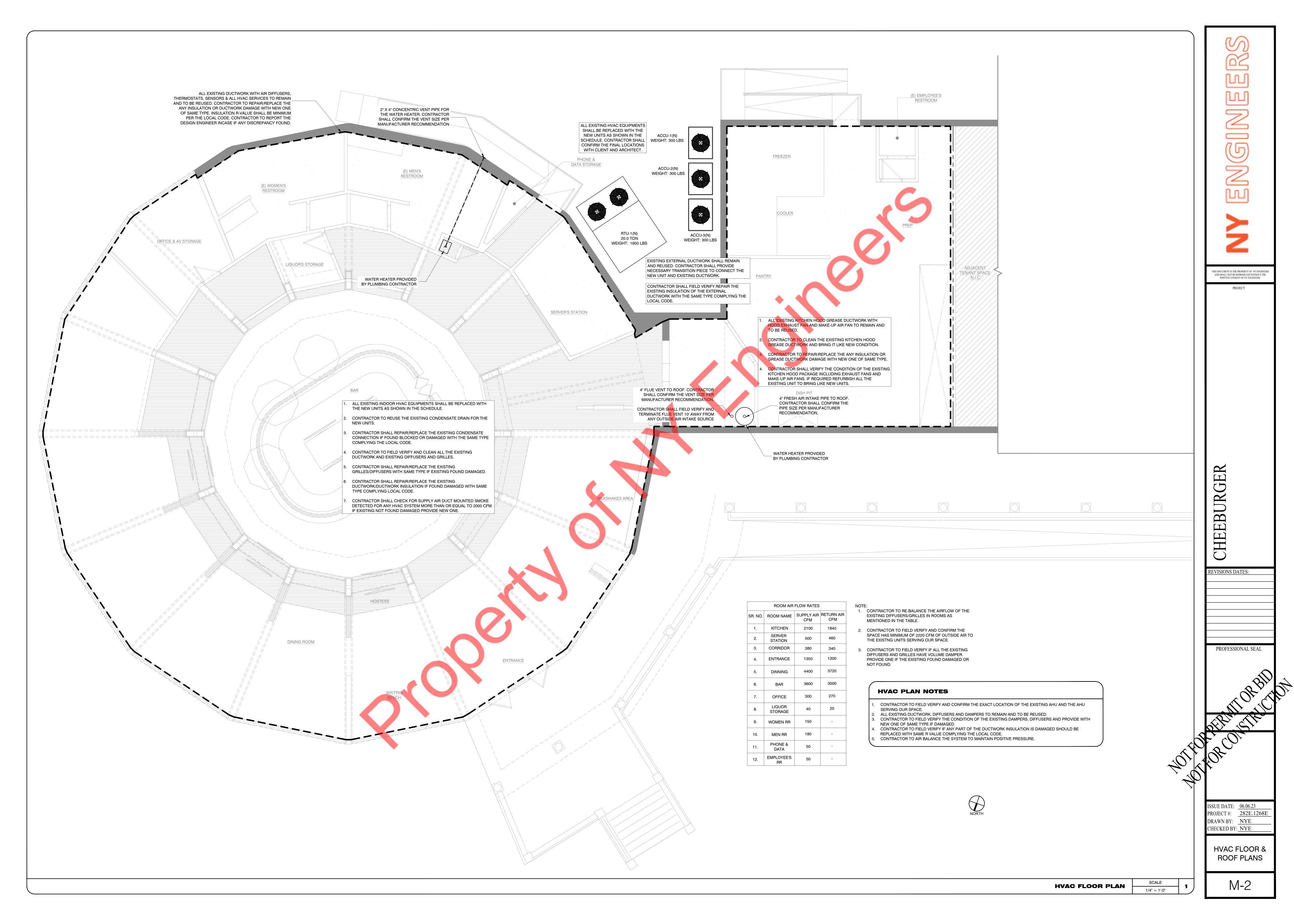
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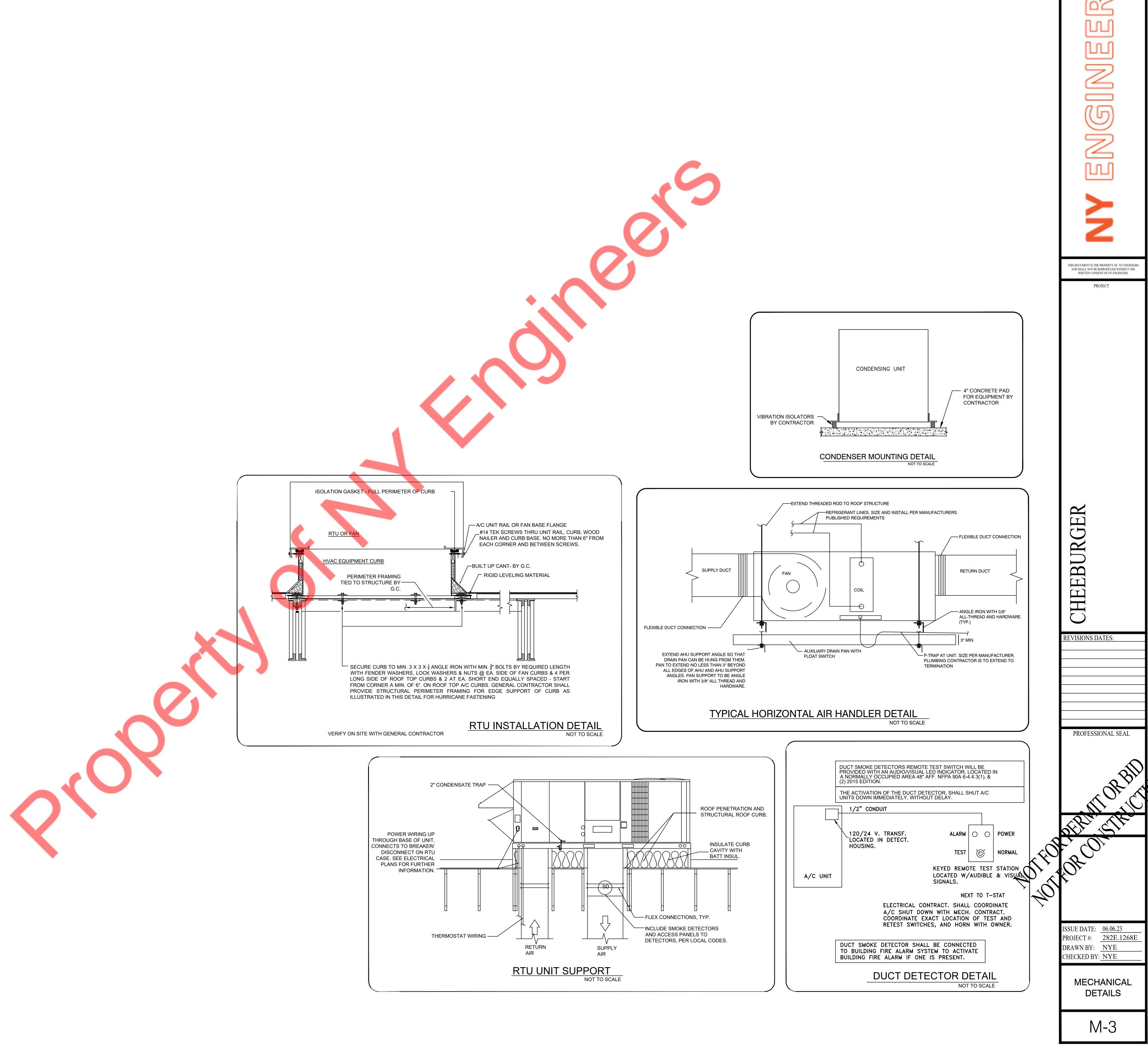
PROFESSIONAL SEAL

PROJECT #: 282E.1268E DRAWN BY: NYE CHECKED BY: NYE

> **MECHANICAL** NOTES & **SCHEDULES**

> > M-1





SCOPE OF WORK

REUSE THE EXISTING ELECTRICAL METER. REUSE EXISTING 1200A, 120/208V, 3-PHASE, 4-WIRE MAIN ELECTRICAL PANEL "MDP". REUSE EXISTING 225A(M.L.O.),120/208V, 1-PHASE, 3-WIRE ELECTRICAL PANEL "A", REUSE EXISTING 225A,120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B". REUSE EXISTING 225A(M.L.O.),120/208V, 1-PHASE, 3-WIRE ELECTRICAL PANEL "C". REUSE EXISTING 120/208V, 1-PHASE, 3-WIRE ELECTRICAL PANEL "D". ALL THE LIGHTING SHALL BE EXISTING TO REMAIN ALONG WITH THE CONTROLS WHOSE OPERATING CONDITIONS TO BE VERIFIED IN FILED BY TH ELECTRICAL CONTRACTOR. ALL NECESSARY EQUIPMENT, WIRING AND NEW LIGHTING (IF ANY) FOR THE PROJECT SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH G.C FOR LOW VOLTAGE WIRING.

ELECTRICAL PLAN NOTES

- . ELECTRICAL 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 34. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR CUT SHEETS OF AND SCHEDULES. IF DIFFERENT, NOTIFY ARCHITECT/ENGINEER BEFORE BIDDING, ORDERING, OR PROCEEDING WITH WORK.
- 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, 36. ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/TYPE WRITTEN 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.
- . ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST | 39. ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE 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.
- OF THE NATIONAL ELECTRIC CODE AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION.
- DO NOT SCALE THE ELECTRICAL DRAWINGS REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION FOR ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
- ALL ELECTRICAL NOT BEING REUSED MUST BE REMOVED IN ITS ENTIRETY.
- ALL CONDUIT IN OR UNDERGROUND OR IN CONCRETE MUST BE RIGID GALVANIZED STEEL.
- . CIRCUIT BREAKERS AND PANELS TO BE BOLT ON TYPE. 10. ALL EQUIPMENT SHALL BE APPROVED BY UL OR OTHER NATIONALLY
- RECOGNIZED TESTING COMPANY. 1. ALL RECEPTACLES SHALL BE GROUNDED AS REQUIRED BY NEC 250.146.
- 2. SUBMIT SERVICE ENTRANCE EQUIPMENT FOR SEPARATE APPROVAL. 3. ALL LOW VOLTAGE MUST BE IN CONDUIT TO ABOVE THE DROP CEILING.
- 4. SEPARATE PERMITS ARE REQUIRED FOR ALL LOW VOLTAGE SUCH AS TELEPHONE, DATA, THERMOSTAT, MUSIC, ALARMS ETC.
- 15. SEPARATE PERMIT REQUIRED FOR SIGNAGE.

BRIDAL RINGS OR "J" HOOKS REQUIRED.

- 6. PRIOR TO ANY CONSTRUCTION WORK BEGINNING AN ON-SITE MEETING WITH GENERAL CONTRACTORS IS REQUIRED.
- 7. ELECTRICIAN MUST BE ON SITE FOR ALL INSPECTIONS. 8 MINIMUM WIRE SIZE SHALL BE #12 A W.G. FXCLUDING CONTROL WIRING
- ALL CONDUCTORS SHALL BE COPPER AND UNLESS OTHERWISE NOTED THHN INSULATION.
- 9. 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
- 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 IN RIGHT ANGLES TO THE BUIDING STRUCTURE. DO NOT LOOP EXCESS
- 23. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL 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
- 7. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION
- 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
- 32. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, DEVICES, ETC. FOR ALL OUTLETS AS INDICATED.

THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF

33. MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS

- APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS 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.
- DIRECTORIES. 37. ALL ELECTRICAL AND COMMUNICATIONS OUTLETS TO BE AT 24" A.F.F.
- 38. ALL LIGHT SWITCHES TO BE AT 42" A.F.F.

UNLESS NOTED OTHERWISE, AND VERTICALLY MOUNTED.

- ELECTRICAL CONTRACTOR. ALL ELECTRICAL WIRING FOR HVAC SYSTEM INCLUDING CONTROLS, THERMOSTATS, POWER, ETC. SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2017 EDITION 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 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
 - 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.

(6'-0" OR LESS).

PROCEEDING WITH ANY WORK.

- 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

PATCHING AND FIRE CAULKING REQUIRED OF HIS WORK.

- ACCEPTANCE. PROVIDE A COPY TO LL. 51. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED
- TO THE BUILDING OWNER. 52 ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING,
- 53. ABSOLUTELY NO FLEXIBLE CONDUIT IS PERMITTED IN DEMISING WALLS. FLEXIBLE CONDUIT IS PERMITTED FOR SHORT FINAL CONNECTIONS ONLY
- 54. EXPOSED CONDUIT SHALL BE INSTALLED IN STRAIGHT LINES, PARALLEL OR FLEXIBLE CONDUIT IN CEILING SPACE OR WALL CAVITY. NO CONDUIT TO BE SUPPORTED FROM THE ROOF DECK.
- CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED 55. CABLE TYPES AC AND NM CABLES ARE NOT ACCEPTABLE. TYPE MC CABLE, ELECTRIC METALLIC TUBING (EMT) AND RIGID GALVANIZED CONDUIT ARE
 - 56. ALL EQUIPMENT, DEVICES AND FIXTURES SHALL BE GROUNDED IN

COMPLIANCE WITH NEC AND UL REQUIREMENTS.

- 57. ALL PANELS TO BE UL LABELED WITH BOLT-ON TYPE CIRCUIT BREAKERS. 58. 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. 59. TENANT IS REQUIRED TO MAKE A FIELD SURVEY OF THE EXISTING FLECTRICAL 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 AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF WILL BE COMPLETED BY TENANT/TENANT'S GC AT TENANT'S SOLE
- 28. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND 60. ALL ELECTRICAL PANELS TO BE MOUNTED ON PLYWOOD BACKER BOARD. 61. PANEL PHASE LOADS TO BE BALANCED WITHIN 10%.
 - 62. ELECTRICAL PANELS MAY NOT BE RECESSED IN DEMISING PARTITIONS. SURFACEMOUNT OR FULL FUR OUT WALL TO ACHIEVE FLUSH FINAL
 - 63. COORDINATE ALL CONCRETE TRENCHING/CORING TO ENSURE THAT ANY UNDERSLAB UTILITIES FTC ARE NOT DAMAGED DURING FLOOR CUT ANY DAMAGE TO BEREPAIRED AT TENANT'S EXPENSE. PRIOR APPROVAL AND COORDINATION WITHPROPERTY MANAGEMENT IS REQUIRED FOR ALL CONCRETE CUTTING.
 - 64. CONFIRM ELECTRICAL METER REQUIREMENTS WITH MALL OPERATIONS.

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

SYMBOL	DESCRIPTION								
	EXHAUST FAN								
	COMBINATION EXHAUST FAN/LIGHT (REFER TO MECHANICAL PLANS								
Ú,	JUNCTION BOX								
	BATTERY BACK UP EXIT LIGHT								
QQ	BATTERY BACK UP EMERGENCY LIGHT								
\$	WALL SWITCH (SINGLE, DOUBLE,)								
\$ ₃	WALL SWITCH (3 WAY, 4 WAY)								
\$ _T	WALL SWITCH (TIMER)								
\$os	OCCUPANCY SENSOR WALL SWITCH								
Θ	SINGLE RECEPTACLE								
\Rightarrow	DUPLEX RECEPTACLE								
+	DUPLEX RECEPTACLE, 46" TO AFF AT KITCHEN, BATHS AND TOPS								
=	HALF SWITCHED DUPLEX RECEPTACLE								
•	230 VOLT RECEPTACLE								
<u> </u>	QUADRUPLEX RECEPTACLE								
Θ	FLOOR MOUNTED. FLUSH DUPLEX RECEPTACLE								
	FLOOR MOUNTED. FLUSH QUAD. RECEPTACLE								
	FLOOR MOUNTED. FLUSH 230 VOLT RECEPTACLE								
CL	CEILING MOUNTED DUPLEX RECEPTACLE								
	ELECTRICAL PANEL								
	DISCONNECT SWITCH								
\rightarrow	USB CHARGER RECEPTACLE								
2	TELEVISION OUTLET								
•	TELEPHONE OUTLET								
	TELEPHONE/DATA OUTLET								
	DATA OUTLET								
À	FLOOR MTD. FLUSH TELEPHONE/DATA OUTLET								
	QUAD. DATA OUTLET RJ45								
N &	QUAD. DATA OUTLET NJ45								

VAPOR PROOF= VP

WATER HEATER= WH

AIR HANDLING UNIT=AHU

ELECTRICAL CONTRACTOR=E.C.

GROUND FAULT INTERRUPTER= GFCI UNDER CABINET= UC

AUTHORITY HAVING JURISDICTION= A.H.J. AIR COOLED CONDENSING UNIT=ACCU

VERIFY PRIOR TO INSTALL= VH

WEATHER PROOF= WP

RECIRCULATION PUMP=RCP

EXHAUST FAN = EF

		PA	(ISTING NEL "A" 225A, 20/208V PH, 3-W	i i i	XISTING NEL "C" 225A, 20/208V PH, 3-W	EXISTING PANEL "D"	DISCONNECT 200A, 120/208V 3-PH, 4-W
© EXISTING	RTU-1(N) 3-1 + 1#6G, EXISTIN 1 1/4"C. G	GEXISTING SPLIT AC UNIT MAIN DINNING	PACKAGE AC UNIT EXISTING		EXISTING G	FROM EXISTING BASE BUILDING DISTRIBUTION	3-3/0 + 1#40 2"C.
FROM EXISTING BASE BUILDING DISTRIBUTION SYSTEM	C MDP(EX) 120/208V, 3PH	 	225A	1200A LOC: EXTERIOR			

CATALOG

NUMBER

MANUFACTURER

NO. OF

LAPMS

WATTAGE

MOUNTING

LIGHT FIXTURE SCHEDULE NOTES:

REFER TO SHEET A-2 - REFLECTED CEILING PLAN IN ARCHITECTURAL DRAWINGS

(*) EXISTING FIXTURES ARE ACCEPTABLE. IF THEY NEED TO BE REPLACED,

SUBSTITUTIONS WILL NOT BE REVIEWED AFTER THIS TIME. SUBMITTAL

FIXTURES. WITHOUT THIS INFORMATION NO REVIEW WILL BE PROVIDED.

SUBSTITUTIONS TO THE ABOVE FIXTURE SCHEDULE MUST BE SUBMITTED 14 DAYS PRIOR TO BID & REVIEWED BY THE ARCHITECT, ENGINEER & OWNER.

PACKAGES MUST INCLUDE COLOR, CUT SHEETS, ALL PHOTO METRICS & FIXTURE SAMPLES FOR ALL DECORATIVE FIXTURES, LANDSCAPE FIXTURES & OUTDOOR

FOR MORE INFORMATION ON COLORS AND TRIMS REQUIRED

REPLACE W/ EXACT MATCH OR MATCH SCHEDULE

VOLT

ELECTRICAL RISER KEYED NOTES:

EXISTING ELECTRICAL SERVICE OF 1200A, 120/208V, 3-PHASE, 4-WIRE FOR THE PROJECT SPACE TO REMAIN. E.C. SHALL COORDINATE WITH BASE BUILDING/LANDLORD/OWNER FOR EXACT POWER DISTRIBUTION PRIOR TO COMMENCING ANY WORK. E.C. SHALL INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.

LIGHTING FIXTURE SCHEDULE

TO REMAIN

EXISTING LIGHTING FIXTURE

SYMBOL TYPE DESCRIPTION

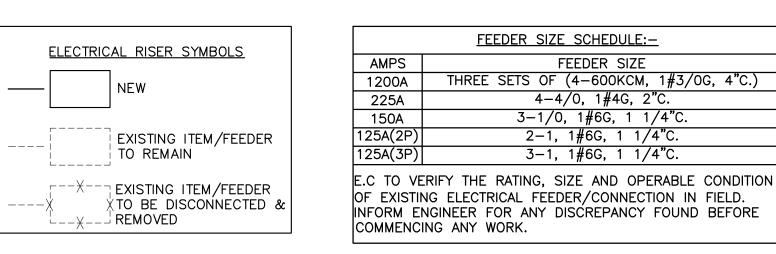
- , EXISTING 1200A, 120/208V, 3—PHASE, 4—WIRE ELECTRICAL METER TO REMAIN. E.C. SHALL EXISTING 1200A, 120/208V, 3—PHASE, 4—WIRE ELECTRICAL METER TO REMAIN. E.C. SHALL COORDINATE WITH BASE BUILDING/LANDLORD/OWNER FOR EXACT LOCATION. E.C. TO VERIFY OPERABLE CONDITION OF EXISTING ELECTRICAL METER IN FIELD AND PROVIDE NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- EXISTING 1200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL MAIN MCB PANEL "MDP" TO REMAIN (NAME TO BE CONFIRMED ON FIELD). E.C. TO FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- EXISTING 225A(M.L.O.), 120/208V, 1-PHASE, 3-WIRE ELECTRICAL PANEL "A" TO REMAIN. E.C. TO FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. E.C. TO FIELD VERIFY EXACT BREAKER OF THE PANEL "MDP" FEEDING TO PANEL "A". BASE BID ACCORDINGLY.
- EXISTING 225A(M.L.O.), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" TO REMAIN (NAME TO BE CONFIRMED ON FIELD). E.C. TO FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY. EXISTING 225A(M.L.O.), 120/208V, 1-PHASE, 3-WIRE ELECTRICAL PANEL "C" TO REMAIN (NAME TO BE CONFIRMED ON FIELD) TO TO FIELD TO THE PANEL "C" TO REMAIN (NAME TO BE CONFIRMED ON FIELD). E.C. TO FIELD VERIFY EXACT SIZE, LOCATION &
- ACCORDINGLY. EXISTING FEEDERS SHALL REMAIN. E.C. TO VERIFY OPERABLE CONDITION OF FEEDERS IN FIELD AND PROVIDE NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.

OPERABLE CONDITION OF THE PANEL. REPLACE IF FOUND INOPERABLE. E.C. TO FIELD VERIFY EXACT BREAKER OF THE PANEL "MDP" FEEDING TO PANEL "C". BASE BID

- EXISTING 120/208V, 1-PHASE, 3-WIRE OUTDOOR ELECTRICAL PANEL "D" TO REMAIN (NAME TO BE CONFIRMED ON FIELD). 50 SHALL TO SEE (NAME TO BE CONFIRMED ON FIELD). E.C. SHALL TRACE THE EXACT POWER DISTRIBUTION IN FIELD. ALSO E.C. TO FIELD VERIFY EXACT SIZE, LOCATION & OPERABLE CONDITION OF
- NEW 200A, 120/208V, 3-PHASE, 4-WIRE DISCONNECT SWITCH FOR NEW RTU-1(N). E.C. COORDINATE WITH ARCHITECT/OWNER/MECHANICAL CONTRACTOR FOR EXACT LOCATION AND POWER REQUIREMENT BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.

THE PANEL. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.

E.C. SHALL REPLACE THE EXISTING (1) 70A/2P BREAKKER WITH (1) 125A/3P BREAKER FOR THE NEW RTU UNIT RTU-1(N) IN THE EXISTING "MDP" PANEL ALONG WITH THE NEW FEEDER AS MENTIONED IN THE RISER DIAGRAM. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR THE EXACT POWER REQUIREMENTS BEFORE COMMENCING ANY WORK. MAKE SURE THAT THE NEWLY ADDED BREAKER SHALL BE COMPATIBLE WITH THE EXISTING "MDP" PANEL BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.



PROPOSED FLOOR

ELECTRICAL GENERAL NOTE:

- 1. RISER DIAGRAM SHOWN IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY EXACT POWER DISTRIBUTION IN FIELD AND INFORM ENGINEER ON RECORD FOR
- 2. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION IN FILED. COORDINATE WITH OWNER/ARCHITECT.
- 3. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
- 4. E.C TO VERIFY OPERABLE CONDITIONS OF EXISTING DEVICES IN FIELD. REPLACE/RECTIFY IF FOUND INOPERABLE. BASE BID ACCORDINGLY.



ISSUE DATE: 06.06.23 PROJECT #: 282E.1268E DRAWN BY: NYE CHECKED BY: NYE

EVISIONS DATES:

PROFESSIONAL SEAL

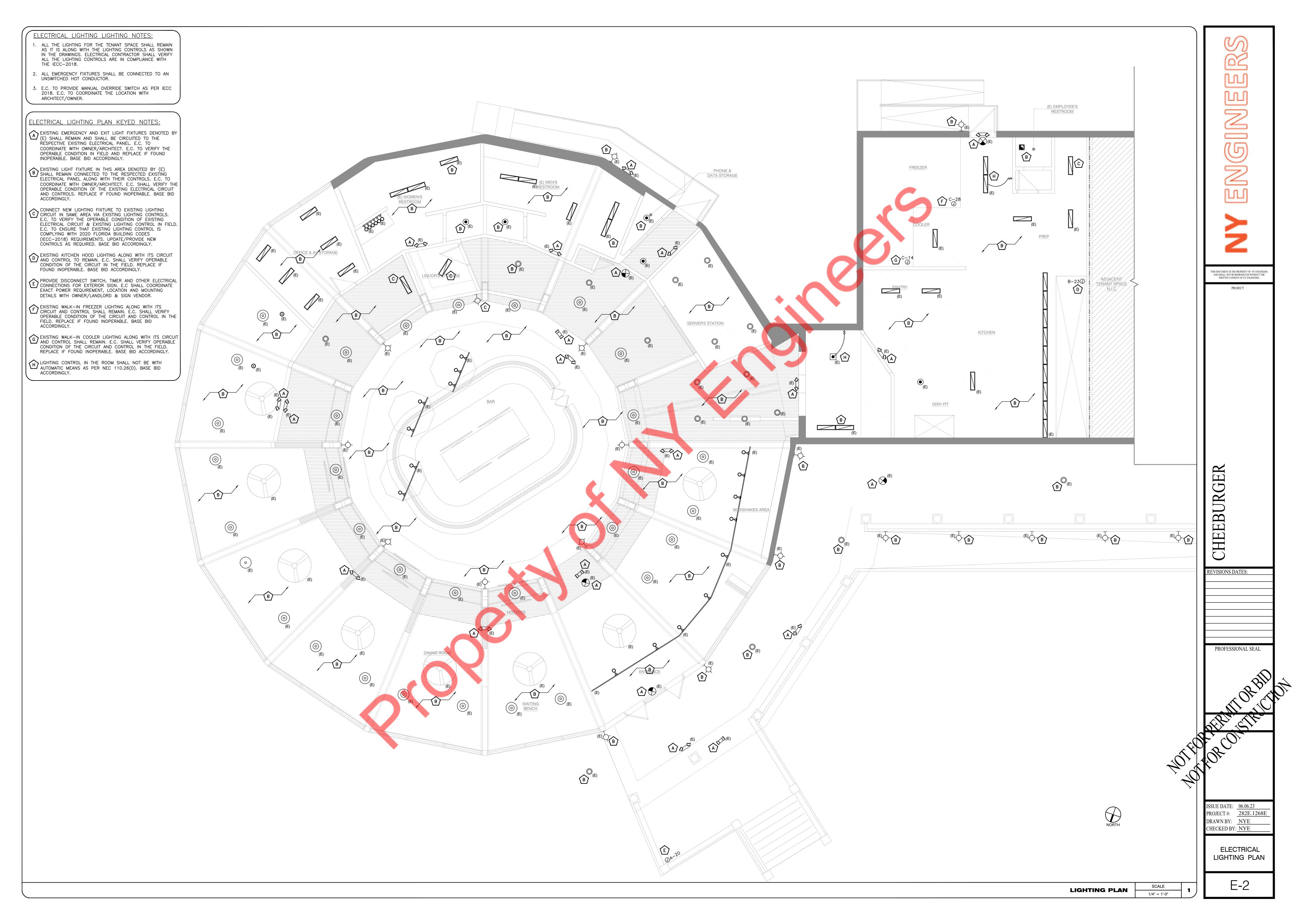
THIS DOCUMENT IS THE PROPERTY OF MY ENGINE

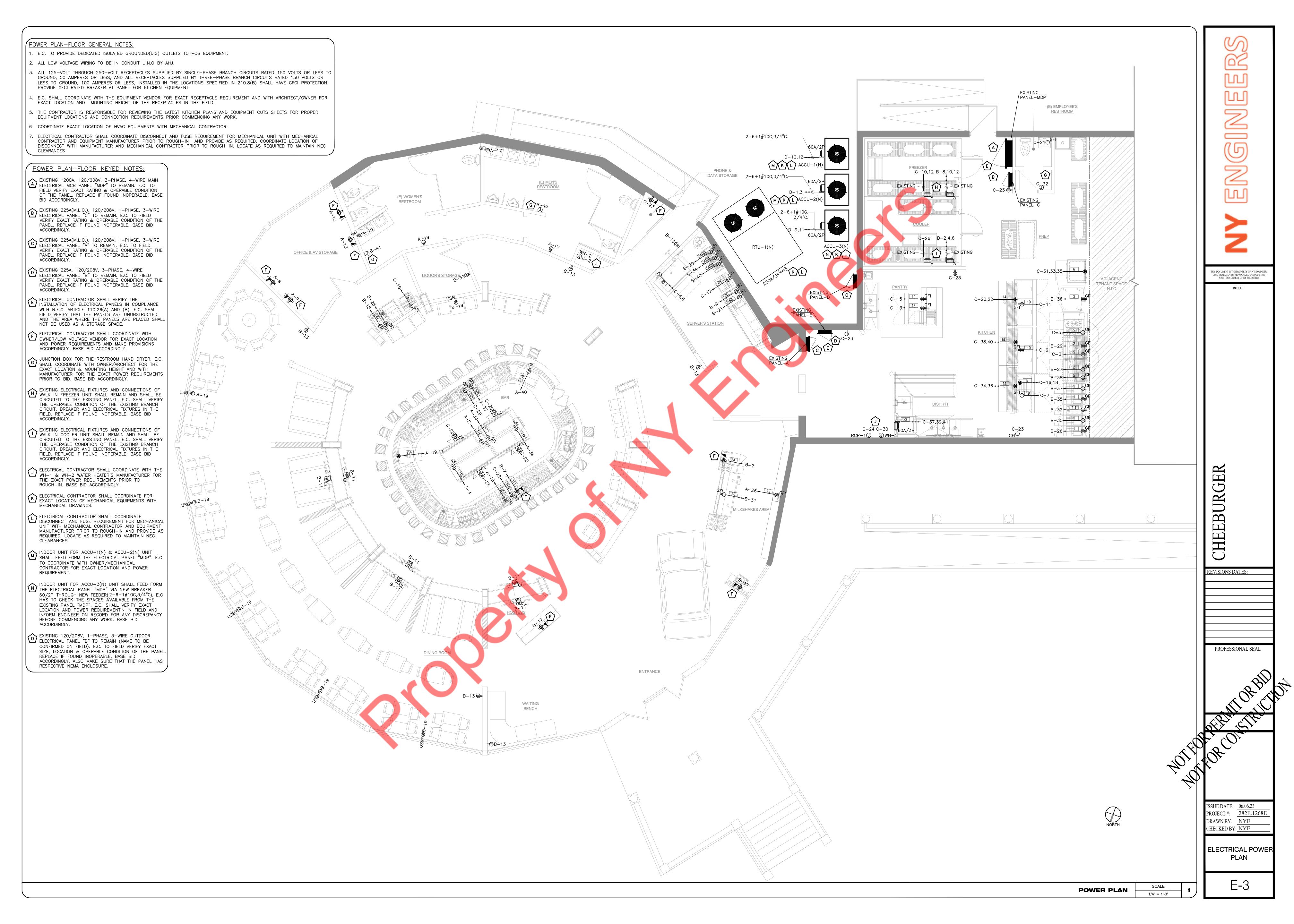
WRITTEN CONSENT OF NY ENGINEERS.

PROJECT

ELECTRICAL PLAN NOTES AND RISER DIAGRAM

SCALE **ELECTRICAL RISER** N.T.S.





PANEL SCHEDULE: -

PANEL:	A(E)										MOUNTING:	SURFACE								
208Y/120	VOLTS,	1 PHASE,			3	WIRE					PANEL LOCATION: K	KITCHEN								
MAIN CB	NA IGHTING. H	MLO: 225A HVAC LOAD, M : MOTOR LOAD, R : RECEP	PTACLES. O : 0	BUS:	EXISTING C. (TYPICAL)	MIN,					FED FROM:	PANEL MDP (E.)								
CKT NO.	TRIP	DESCRIPTION OF LOAD	LOAD	LOAD	MINIMUM BRANCH	PER PHASE (KVA)		PER PHASE (KVA)		PER PHASE (KVA)		PER PHASE (KVA)		MINIMUM BRANCH	LOAD LOAD		DESCRIPTION O	F LOAD	TRIP	CKT NO
CKI IIO.	AMPS	DESCRIPTION OF EGAB	TYPE	(KVA)	CIRCUIT	Α	В	CIRCUIT	(KVA)	TYPE	DESCRIPTION OF		AMPS	L						
1	20	OFFICE LIGHTS	L	1.00	EXISTING	1.55		2#12, #12G, 3/4"C	0.55	Е	BACK BAR COOLER #116		20	2						
3	20	3 FLD LTS DIN RM	L	1.00	EXISTING		1.55	2#12, #12G, 3/4"C	0.55	E	BACK BAR COOLER #116		20	4						
5	20	EXISTING	0	1.00	EXISTING	2.00		EXISTING	1.00	0	EXISTING		20	6						
7	20	EXISTING	0	1.00	EXISTING		2.00	EXISTING	1.00	0	EXISTING		20	8						
9	20	RECEPTACLE: OFFICE & AV STORAGE	R	0.72	2#12, #12G, 3/4"C	1.72		EXISTING	1.00	L	TRACK LIGHTS		20	10						
11	20	11 FAN & LTS BY OFF	L	1.00	EXISTING		2.00	EXISTING	1.00	0	EXISTING		20	12						
13	20	RECEPTACLE: OFFICE & AV STORAGE	R	0.72	2#12, #12G, 3/4"C	1.72		EXISTING	1.00	0	EXISTING		20	14						
15	20	UNDERBAR BLENDER STATION #106	E	0.18	2#12, #12G, 3/4"C		1.18	EXISTING	1.00	0	EXISTING		20	16						
17	20	RECEPTACLE : MEN'S RR	R	0.36	2#12, #12G, 3/4"C	1.36		EXISTING	1.00	L	OUTSIDE LIGHT		20	18						
19	20	RECEPTACLE: WOMEN'S RR	R	0.36	2#12, #12G, 3/4"C		1.36	EXISTING	1.00	L	OS SIGN/ENTRY		20	20						
21	20	21 DIN RM FANS	L	1.00	EXISTING	2.00		EXISTING	1.00	0	EXISTING		20	22						
23	20	LIGHTS	L	1.00	EXISTING		2.00	EXISTING	1.00	0	EXISTING		20	24						
25	20	LIGHTS	L	1.00	EXISTING	2.00		EXISTING	1.00	L	EXIT LIGHT DRM 26		20	26						
27	20	LIGHTS	L	1.00	EXISTING		2.00	EXISTING	1.00	L	EMERGENCY		20	28						
29	20	LIGHTS	L	1.00	EXISTING	2.00		EXISTING	1.00	L	FAN & LT ENT 30		20	30						
31	20	LIGHTS	L	1.00	EXISTING		2.00	EXISTING	1.00	L	LANDSCAPE LTS 32		20	32						
33	20	LIGHTS	L	1.00	EXISTING	1.25		2#12, #12G, 3/4"C	0.25	Е	BACK BAR COOLER #117		20	34						
35	20	LIGHTS	L	1.00	EXISTING		1.25	2#12, #12G, 3/4"C	0.25	E	BACK BAR COOLER #117		20	36						
37	20	UNDERBAR BLENDER STATION #106	E	0.18	2#12, #12G, 3/4"C	1.18		EXISTING	1.00	L	BAR LIGHT		20	38						
39	40/20	CLASSWASUED HAAR	E	3.33	240 4400 2/440		3.63	2#12, #12G, 3/4"C	0.30	Е	FROSTER/CHILLER, GLASS/M	IUG/PLATE #115	20	40						
41	40/2P	GLASSWASHER #114	E	3.33	3#8, #10G, 3/4"C	4.33		EXISTING	1.00	0	EXISTING		20	42						
	1	TOTAL CONNECTED LOA	D (KVA)	1		21.11	18.97			1	1									

Г		D/E)													
	PANEL:	B(E)											MOUNTING: SURFACE		
	208Y/120	VOLTS,	3 PHASE,			4	WIRE						PANEL LOCATION: KITCHEN		
	MAIN CB	225A	MLO: NA		BUS:	EXISTING	MIN,						FED FROM: PANEL MDP (E.)		
	NOTE: L:LI	GHTING, H :	HVAC LOAD, M: MOTOR LOAD, R: RECEPTACLES, O	: OTHER/MISC	. (TYPICAL)				-						
	CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD	MINIMUM BRANCH	PE	R PHASE (K)		MINIMUM BRANCH	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
		AIVIPS			(KVA)	CIRCUIT	A	В	С	CIRCUIT				AIVIPS	_
	1	20/25	A C/EV/CTINIC)	Н	1.92		3.36				1.44	0	WALKIN COOLER (EVICTING)	45/05	2
	3	20/3P	AC(EXISTING)	H	1.92	EXISTING		3.36	2.26	EXISTING	1.44	0	WALK IN COOLER (EXISTING)	15/3P	4
	5	20	LINDERDAD DOC CARINET (WZA C WAAA)	Н	1.92	2442 4426 2/446	2.16		3.36		1.44	0			6
	7	20	UNDERBAR POS CABINET (#74 & #111)	R	0.72	2#12, #12G, 3/4"C	2.16	2.40		FVICTING	1.44	0	WALK IN EDEEZED (EVICTING)	45/20	8
B	9	20	COFFEE/TEA MAKER #67	E	1.66	2#12, #12G, 3/4"C		3.10	2.52	EXISTING	1.44	0	WALK IN FREEZER (EXISTING)	15/3P	10
	11	20	RECEPTACLE: TV	R	1.08	2#12, #12G, 3/4"C	2.52		2.52		1.44	0			12
	13	20	RECEPTACLE: GENERAL	R	1.08	2#12, #12G, 3/4"C	2.52	2.10		EV/CTIN O	1.44	H	EVILALIST OVER CRILL(EVISTING)	45/25	14
B	15	20	COFFEE/TEA MAKER #67	E	1.66	2#12, #12G, 3/4"C		3.10	2.46	EXISTING	1.44		EXHAUST OVER GRILL(EXISTING)	15/3P	16
	17	20	RECEPTACLE: HOSTESS AND MILKSHAKE COUNTER	R	0.72	2#12, #12G, 3/4"C	2.52		2.16		1.44	H			18
	19	20	RECEPTACLE: USB	R	1.08	2#12, #12G, 3/4"C	2.52	2.24		EVICTING	1.44	H	MANYELID AIDE/EVICTING\	45/20	20
B	21	20	COFFEE MAKER, AUTOMATIC #68	E I	1.77	2#12, #12G, 3/4"C		3.21	2.44	EXISTING	1.44	H	MAKE UP AIRE(EXISTING)	15/3P	22
	23	20	HOOD LIGHTS COFFEE MAKER, AUTOMATIC #68		1.00	EXISTING	2.47		2.44	2#12 #12C 2/4"C	1.44	H	FRYER, DEEP FAT, GAS #1	20	24
	25	20	GRIDDLE GAS #2	E	1.77 0.08	2#12, #12G, 3/4"C	2.47	1.05		2#12, #12G, 3/4"C	0.70	E	CARBONATOR, SODA SYSTEM #CARB	20	26
B	27 29		GRIDDLE GAS #2	E E	0.08	2#12, #12G, 3/4"C 2#12, #12G, 3/4"C		1.05	0.78	2#12, #12G, 3/4"C 2#12, #12G, 3/4"C	0.98	E	FRYER #1	20	
	31	20	ICE CREAM DIPPING CABINET #70	E	0.08	2#12, #12G, 3/4 C	1.55		0.78	2#12, #12G, 3/4 °C	0.70 0.72	E	FRYER DUMP STATION #1.1	20	30 32
	33	20	RECEPTACLE: LIQUOR'S STORAGE	R	0.83	2#12, #12G, 3/4 C	1.55	1.16		2#12, #12G, 3/4 °C	0.72	E	CARBONATOR, SODA SYSTEM #CARB	20	34
B	35	20	FRYER, DEEP FAT, GAS #1	E	0.18	2#12, #12G, 3/4 C		1.10	1.61	2#12, #12G, 3/4 °C 2#12, #12G, 3/4 °C	0.98	E	OVEN CONVECTION GAS #3	20	36
-	35	20	FRYER, DEEP FAT, GAS #1	E	0.70	2#12, #12G, 3/4 C	0.97		1.01	2#12, #12G, 3/4 °C	0.91	E	REFRIGERATOR CHEF BASE #5	20	38
	39	20	MIXER, DRINK #75	E	0.70	2#12, #12G, 3/4 C	0.37	1.36		2#12, #12G, 3/4 °C 2#12, #12G, 3/4 °C	0.28	E	CARBONATOR, SODA SYSTEM #CARB	20	40
B	41	20	WOMEN'S RR HANDRYER	0	1.00	2#12, #12G, 3/4 C		1.30	2.00	2#12, #12G, 3/4 °C 2#12, #12G, 3/4 °C	1.00	0	MEN'S RR HANDRYER	20	40
-		20	TOTAL CONNECTED LOAD (K		1.00	2112, 1120, 3/4 0	15.56	16.34	14.87	2π12, π120, 3/4 C	1.00	<u> </u>	MILIT S MICHANDICIEM	20	47

PANEL	SCH	IEDULE	GENER	RAL	NOTE:	<u>S:</u>	
		015011	TI. 10		~~~		_

PANEL SCHEDULE GENERAL NOTES:

A. ALL CIRCUITING SHOWN IN PANEL "A", "B", "C" & "D" FOR REFERENCE PURPOSE

A. ALL CIRCUITING SHOWN IN PANEL "A", "B", "C" & "D" FOR REFERENCE PURPOSE

A. PROVIDE (1) 40A/2P GFCI BREAKER IN PLACE OF (2) 20/1P BREAKER. ONLY. E.C. SHALL VERIFY CIRCUITING & BREAKER SIZE OF THE EXISTING DEVICES PROVIDE (1) 20A/1P BREAKER IN PLACE OF (1) SPACE. IN FIELD AND INFORM ENGINEER FOR DISCREPANCIES.

B. ELECTRICAL CONTRACTOR TO VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE.

C. E.C. SHALL PROVIDE NEW CIRCUIT BREAKERS IN PLACE OF EXISTING CIRCUIT BREAKERS WHEREVER NECESSARY TO BE IN LINE WITH THE PANEL SCHEDULE. E.C. SHALL CHECK COMPATIBILITY OF NEWEL ADDED BREAKERS WITH EXISTING

D. E.C. SHALL VERIFY THE EXISTING EQUIPMENT LOAD & RATINGS IN FIELD AND ACCORDINGLY CONSIDER THE ELECTRICAL LOAD IN PANEL BOARD SCHEDULE.

C PROVIDE (1) 50A/3P GFCI BREAKER IN PLACE OF (3) SPACES.

D PROVIDE (1) 60A/3P GFCI BREAKER IN PLACE OF (3) SPACES.

E PROVIDE (1) 20A/2P BREAKER IN PLACE OF (1) 30/2P BREAKER.

F PROVIDE (1) 20A/2P BREAKER IN PLACE OF (2) SPACES.

GPROVIDE (1) 60A/2P BREAKER IN PLACE OF (2) SPACES.

PANEL:	C(E)												MOUNTING: SU	JRFACE	
208Y/120	VOLTS,		1	PHASE,			3	WIRE					PANEL LOCATION: KI	TCHEN	
MAIN CB	NA CHTING H	: HVAC LOAD, M : MC	MLO:	225A	O · OTHED/MIS	BUS:	EXISTING	MIN,					FED FROM: PA	ANEL MDP (E.)	
CKT NO.	TRIP	,	CRIPTION OF LO	· · · · · · · · · · · · · · · · · · ·	LOAD	LOAD	MINIMUM BRANCH	PER PHA	ASE (KVA)	MINIMUM BRANCH	LOAD	LOAD	DESCRIPTION OF LOAD	TRIP	CKT NO.
CKI NO.	AMPS	DESC	CRIPTION OF LO	AD	TYPE	(KVA)	CIRCUIT	Α	В	CIRCUIT	(KVA)	TYPE	DESCRIPTION OF LOAD	AMPS	CKI NO.
1	20	LIGHTING			L	0.50	2#12, #12G, 3/4"C	0.74		2#12, #12G, 3/4"C	0.24	0	WH-2	20	2
3	20	REFRIGERATOR CHE	F BASE #5		E	0.26	2#12, #12G, 3/4"C		1.55	2#12, #12G, 3/4"C	1.29	E	ICE MAKER W/O BIN #60	20/2P	4
5	20	REFRIGERATOR CHE	F BASE #5		Е	0.26	2#12, #12G, 3/4"C	1.55		2#12, #120, 3/4 C	1.29	E	TCE WAKER W/O BIN #00	20/27	6
7	20	FREEZER, WORKTOP	#9		E	0.30	2#12, #12G, 3/4"C		0.30				SPARE	30	8
9	20	REFRIGERATOR, SAN	IDWICH/SALAD	PREP #10	E	0.32	2#12, #12G, 3/4"C	1.99		EXISTING	1.66	0	- FREEZER	20/2P	10
11	20	REFRIGERATOR, SAN	IDWICH/SALAD	PREP #10	Е	0.32	2#12, #12G, 3/4"C		1.99	EXISTING	1.66	0	FREEZER	20/27	12
13	20	SALAD DISPENSER #	18		E	0.29	2#12, #12G, 3/4"C	1.29		EXISTING	1.00	L	WIC (WALK IN COOLER) FANS & LIGHTS	20	14
15	20	REFRIGERATOR, SAN	IDWICH/SALAD	PREP #19	E	0.26	2#12, #12G, 3/4"C		1.16	2#12, #12G, 3/4"C	0.89	E	TOASTER, CONVEYOR #8	20/2P	16
17	20	DISPENSER, BEVERA	GE W/ STAND #	66	E	0.18	2#12, #12G, 3/4"C	1.07		2#12, #120, 3/4 C	0.89	E	TOASTER, CONVETOR #6	20/27	18
19	20	DISPENSER, BEVERA	GE W/ STAND #	66	E	0.18	2#12, #12G, 3/4"C		1.74	2#12, #12G, 3/4"C	1.56	E	- WARMER, FOOD OVERHEAD #14	20/2P	20
21	20	RECEPTACLE : EMPL	OYEE'S RESTRO	MC	R	0.18	2#12, #12G, 3/4"C	1.74		2#12, #12G, 3/4 C	1.56	E	WARIVIER, 1000 OVERHEAD #14	20/27	22
23	20	RECEPTACLE : KITCH	EN		R	0.72	2#12, #12G, 3/4"C		0.81	2#12, #12G, 3/4"C	0.09	0	RCP-1	20	24
25	20	RECEPTACLE: TV			R	0.72	2#12, #12G, 3/4"C	1.72		EXISTING	1.00	0	COOLER	20	26
27	20	RECEPTACLE: PHON	E AND DATA STO	DRAGE	R	0.36	2#12, #12G, 3/4"C		0.86	EXISTING	0.50	L	FREEZER	20	28
29	20	UNDERBAR ICE STOR	RAGE, FREEZER #	#105	E	0.09	2#12, #1 2G, 3/4"C	0.69		2#12, #12G, 3/4"C	0.60	0	WH-1	20	30
31					E	2.88			3.38	2#12, #12G, 3/4"C	0.50	0	EMPLOYEE'S RR HAND DRYER	20	32
33	50/3P	SOLID STATE RADIO	FREQUENCY OV	/EN #6	E	2.88	2#8, #10G, 3/4"C	4.44		2#12, #12G, 3/4"C	1.56	Е	WARMER, FOOD OVERHEAD #14	20/2P	34
35					E	2.88			4.44	Z#12, #12U, 3/4 C	1.56	Е	WAMVIEN, 1 OOD OVERHEAD #14	20/27	36
37					E	5.45		6.70		2#12, #12G, 3/4"C	1.25	E	WARMER, FOOD OVERHEAD #14.1	20/2P	38
39	60/3P	WAREWASHER, DOO	OR TYPE, HIGH T	EMP #33	E	5.45	2#8, #1 <mark>0G</mark> , 3/4"C		6.70	2#12, #12U, 3/4 C	1.25	Е	WARRIER, 1000 OVERHEAD #14.1	20/27	40
41					E	5.45		5.54		2#12, #12G, 3/4"C	0.09	E	UNDERBAR ICE STORAGE, FREEZER #10	5 20	42
			TOTAL CONN	NECTED LOAD (I	(VA)			27.47	22.93					<u> </u>	

PANEL:	D(E)(OU	TDOOR)				•							MOUNTING:	SURFACE		
208Y/120	VOLTS,		1	PHASE,			3	WIRE					PANEL LOCATION:	OUTDOOR		
2001/120	V 0213,			111/132,			J	VVIICE					TARLE LOCATION.	OOTBOOK		
MAIN CB	NA		MLO:			BUS:	EXISTING	MIN,					FED FROM:	EXISTING BASE BUIL	DING DISTRIBU	TION
NOTE: L:LI	GHTING, H : I	IVAC LOAD, N	1 : MOTOR LOAD, F	R : RECEPTA	CLES, O : OTHER	/MISC. (TYP	PICAL)									
CKT NO.	TRIP		ESCRIPTION OF LO	AD	LOAD	LOAD	MINIMUM BRANCH	PER PHA	SE (KVA)	MINIMUM BRANCH	LOAD	LOAD	DESCRIPTIO	N OE LOAD	TRIP	CKT NO.
CKI NO.	AMPS		PESCRIPTION OF LO	IAU	TYPE	(KVA)	CIRCUIT	Α	В	CIRCUIT	(KVA)	TYPE	DESCRIPTIO	N OF LOAD	AMPS	CKI NO.
1	60/2P	VCCI1-3(NI)			Н	3.54	2#6, #10G, 3/4"C	5.34		EXISTING	1.80	0	EXISTING		25	2
3	4	ACCO-2(N)	ACCU-2(N)		Н	3.54	2#0, #100, 3/4 C		3.54				SPACE			4
5	30/2P	EXISTING			E	2.00	EXISTING	2.00					SPACE			6
7	30/21	LXISTING			E	2.00	LAISTING		2.00				SPACE			8
9	60/2P	ACCU-3(N)			Н	3.54	2#6, #10G, 3/4"C	7.07		2#6, #10G, 3/4"C	3.54	Н	ACCU-1(N)		60/2P	10
11	00/21	ACCO 5(N)			Н	3.54	2#0, #100, 3/4 C		7.07	2#0, #100, 5/4 C	3.54	Н	Acco I(N)		00/21	12
13		SPACE						0.00					SPACE			14
15		SPACE							0.00				SPACE			16
			TOTAL CON	NECTED LOA	AD (KVA)			14.41	12.61							

THIS DOCUMENT IS THE PROPERTY OF NY ENGINEERS AND SHALL NOT BE REPRODUCED WITHOUT THE WRITTEN CONSENT OF NY ENGINEERS.

REVISIONS DATES:

PROFESSIONAL SEAL

ISSUE DATE: 06.06.23
PROJECT #: 282E.1268E

DRAWN BY: NYE
CHECKED BY: NYE

PANEL SCHEDULE

E-4

PROVIDE ALL PLUMBING FOR NEW RESTAURANT & BAR WITHIN AN EXISTING BUILDING SHELL, INCLUDING ALL WATER, GAS, GREASE & SANITARY LINES AND CONNECT TO EXISTING UTILITIES. REUSE THE EXISTING UNDERGROUND EXTERIOR GREASE INTERCEPTOR. PROVIDE ONE NEW GAS INSTANTANEOUS WATER HEATER & ONE NEW GAS TANK TYPE WATER

PLUMBING NOTES

ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND

- 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.
- ALL EQUIPMENT WHICH IS TO REMAIN MUST BE REFURBISHED TO A LIKE NEW CONDITION. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING
- CONDITIONS. ALL MATERIALS SHALL BE NEW.
- 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.
- REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK. 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. . VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
- 2. 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.
- 3. SOIL, WASTE, VENT AND RAINWATER PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN 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
- 16. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE. 7. 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. PROVIDE
- 20. STUDOR MINI/MAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF. 1. PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL
- 22. NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR
- 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 SCH 40 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 2020 FLORIDA BUILDING CODE, PLUMBING, 7TH EDITION. 29. WATER HAMMER ARRESTORS AS PER 2020 FLORIDA BUILDING CODE, PLUMBING, 7TH EDITION.
- 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. PROVIDE A COPY TO LL. 3. OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY

MANUFACTURER

EQUIPMENT TAG

TOTAL FLOW RATE

THERMAL EFFICIENCY

MODEL

STATUS

QUANTITY

CAPACITY

BTU/HR

AIR INTAKE /

FUEL

STORAGE WATER HEATER SCHEDULE

AO SMITH

BTH-120(A)

WH-1

NEW

60 GALLONS

GAS

120,000

197 GPH*

95%

4"Ø / 4"Ø

PLUMBING LEGEND

EQUIPMENT TAG

WATER TEMP.(°F)

SERVICE FACTOR

& MODEL

QUANTITY

PUMP TYPE

V/PH/HZ

UP 15-18 B5

RCP-1

115/1/60

PROVIDE AQUA STAT WITH AUTOMATIC

TIMER KIT FOR THE TEMPERATURE CONTROL OF HOT WATER SYSTEM.

EQUIREMENTS FOR TIMER WITH

COORDINATE ELECTRICAL

ELECTRICAL CONTRACTOR.

- — GSAN — →	GREASE SANITARY SEWER PIPING	
$\cdot \vee \cdot$	VENT PIPING	
	DOMESTIC COLD WATER PIPING	
	HOT WATER PIPING	
	HOT WATER RETURN PIPING	
G	GAS PIPING	
	PIPE RISE	

SANITARY SEWER PIPING

	HOT WATER RETURN PIPING
— g — — 5	GAS PIPING
	PIPE RISE
	PIPE DROP
<u> </u>	CAPPED END OF PIPE
-co©	FLOOR CLEAN OUT
—∞	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
\bowtie	GATE VALVE
 ▼	GAS COCK
Q	WATER HAMMER ARRESTER

⊗ FD	FLOOR DRAIN	
I.W.	INDIRECT WASTE	
8	BALANCING VALVE	
	FLOOR SINK	VENT————————————————————————————————————
•	POINT OF CONNECTION	NEAREST WAI
	THERMOSTATIC MIXING VALVE	ACCESSIBLE CLEANOUT
RECIRCULATION PUN	MP SCHEDULE GRUNDFOS	٤

2	(
140	
ILINE	
WATTS	
	1

FOOD SERVICE EQUIPMENT CONTRACTOR

FOOD SERVICE EQUIPMENT CONTRACTORS SHALL FURNISH ALL FAUCETS & DRAINS WITH TAILPIECES FOR ALL FOOD SERVICE EQUIPMENT.

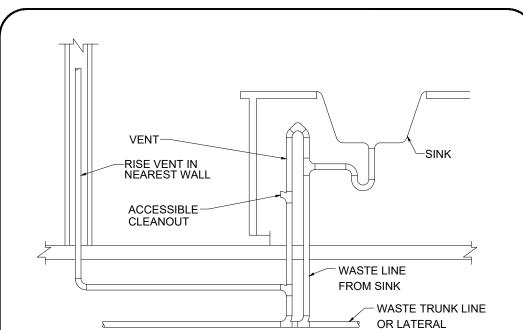
PLUMBING CONTRACTOR

PLUMBING CONTRACTOR SHALL FURNISH ALL VALVES, TRAPS, STOPS, GREASE TRAPS, SHUT-OFFS, PIPING OR OTHER MATERIALS REQUIRED FOR ROUGH-IN AND FINAL CONNECTION TO FOOD SERVICE EQUIPMENT. THIS CONTRACTOR TO MAKE ALL FINAL CONNECTIONS TO EQUIPMENT & INSTALL ALL INDIRECT WASTE FROM EQUIPMENT TO FUNNEL DRAIN OR FLOOR SINK. ALL PIPING TO BE CONCEALED IN

EXISTING CONTIDITONS NOTES

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.

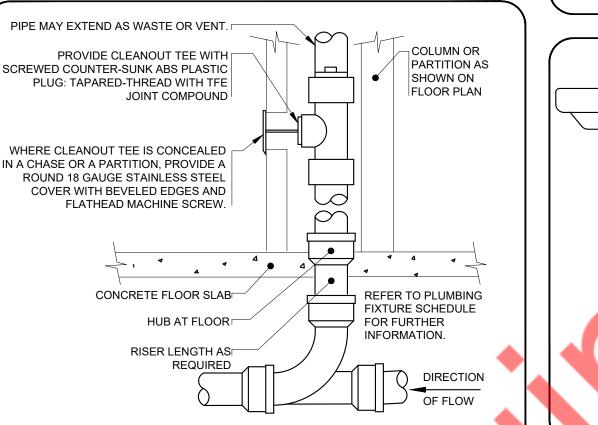


ISLAND SINK PLUMBING CONNECTION

NOT TO SCALE

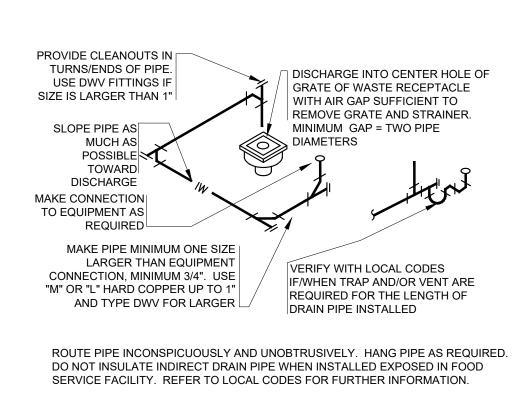
AIR INTAKE--EXHAUST GAS VENT TO PLUMBING **FIXTURES** └──── CD — CONDENSATE — GAS — GAS — GAS · — · DOMESTIC COLD WATER ——--—**>**-—

TANKLESS WATER HEATER DETAIL

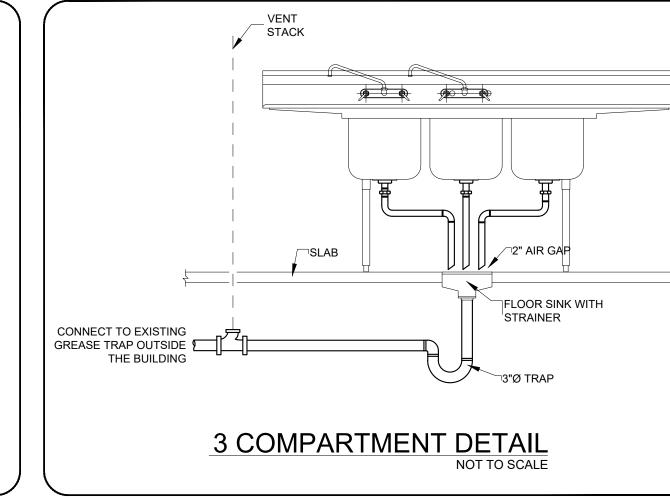


WALL CLEANOUT

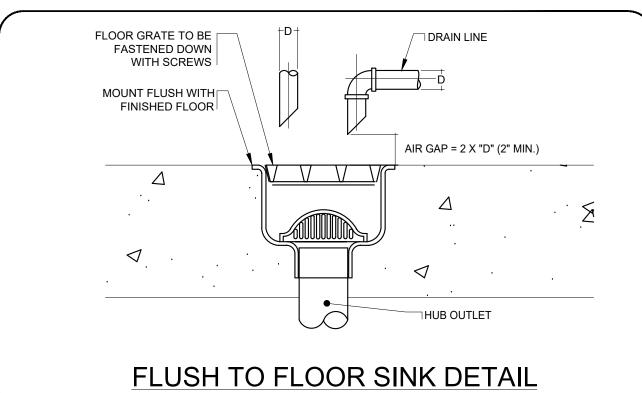
WALL CLEANOUT DETAIL NOTES I) PROVIDE WCO WHERE SHOWN ON PLANE, AND ON SANITARY WA<mark>STE</mark> BRANCHES NO SERVED WITH A FLOOR CLEANOUT. 2) LOCATE ABOVE FIXTURE FLOOR RIM WITHIN 4' OF FLOOR. 3) CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS. 4) LONG SWEEP AT END OF LINE OR COMBINATION WYE AND EIGHT BEND IN RUN OF LINE 5) CLEAN OUT FACE SHALL BE WITHIN 4" OF WALL SURFACE. PROVIDE A PIPE EXTENSION IF REQUIRED.



INDIRECT WASTE DETAIL

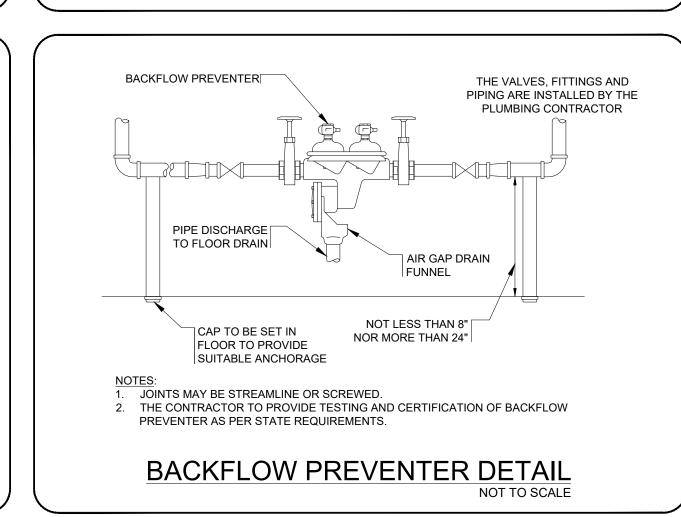


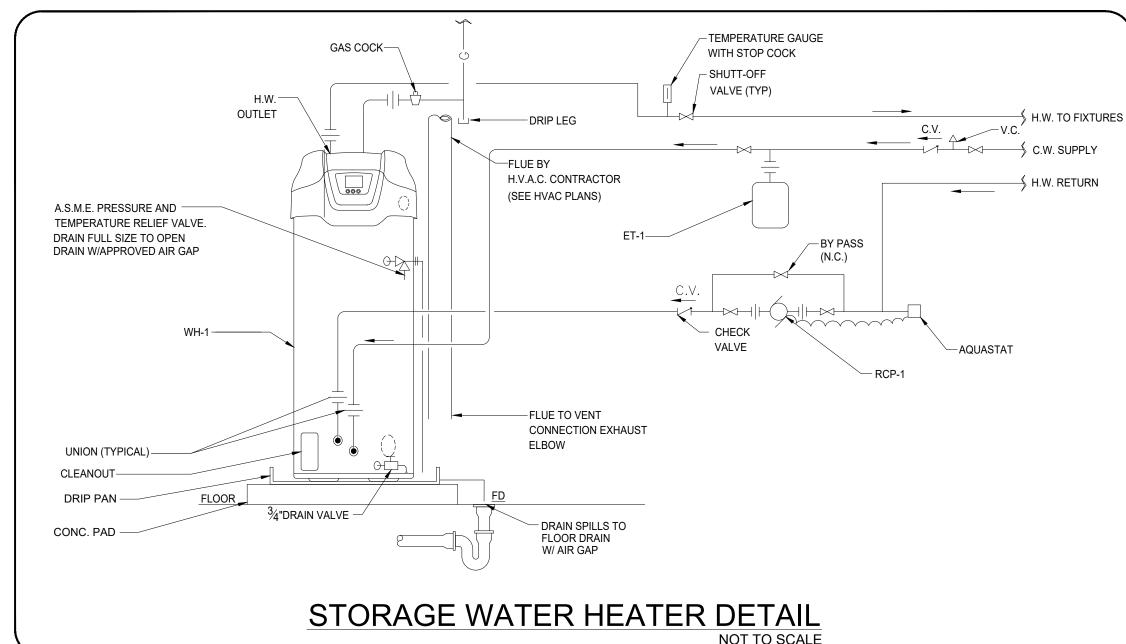
□LAVATORY ¬ SLIP JOINT NUT 1늘 [38] NPT CON LOOR DRAIN FITTING SCUTCHEON **FLOOR DRAIN** 1 (13) FIP COMPRESSION □

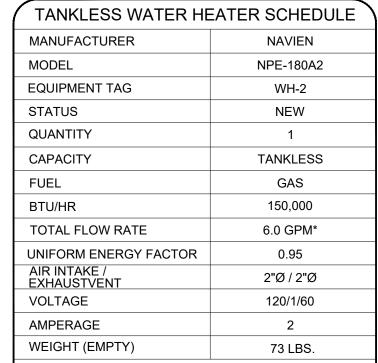


 (FCO) FLOOR SLAB ON GRADE SAME SIZE AS SEWER UP TO 4" MAXIMUM OF SEWER ¬LONG SWEEP ELBOW AT END OR TURN OR RUN HUB AND SPIGOT CAST COMBINATION WYE AND IRON PIPE BELOW FLOOR EIGHT BEND IN RUN ENTER SANITARY SEWER LINE TOP OF PIPE THE FLOW

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







EL THERM-X-TROL ST-1 AS PER LOCAL CODE JIREMENTS.		2. M
ER HEATER COMES WITH INBUILT RCULATION PUMP. CONNECT HWR LINE TO		LC
DIRECTLY.	,	

AUSTVENT	2"Ø / 2"Ø		EXHAUSTVENT	4"Ø / 4"Ø
TAGE	120/1/60		VOLTAGE	120/1/60
ERAGE	2		AMPERAGE	5
GHT (EMPTY)	73 LBS.		WEIGHT (EMPTY)	460 LBS.
ES: *50°F TEMPERATURE RISE. SET TEMP @ 120°F. INSTALL NEW EXPANSION TANK (ET-2) ÄMTROL MODEL THERM-X-TROL ST-1 AS PER LOCAL CODE REQUIREMENTS. WATER HEATER COMES WITH INBUILT RECIRCULATION PUMP. CONNECT HWR LINE TO			NOTES: 1. *70°F TEMPERATURE RISE 2. INSTALL NEW EXPANSION MODEL THERM-X-TROL ST-5, LOCAL CODE REQUIREMENT	TANK (ET-1) AMTROL 2 GALLONS AS PER

ENERGY CONSERVATION NOTES

1. AS PER 2020 FBC-ENERGY CONSERVATION CODE (ADOPTS IECC 2018) C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.10 OF MINIMUM PIPE INSULATION THICKNESS.

	MINIMUM PIPE INSULATION THICKNESS						
FLUID OPERATING	INSULATION C	NOMINAL PIPE OR TUBE SIZE (INCHES)					
TEMPERATURE RANGE AND USAGE (°F)	CONDUCTIVITY BTU· IN./ (H· FT2· °F)	BTU-IN./ TEMPERATURE		<1 1 to < 1½ 1½ to <			
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.AS PER 2020 FBC-ENERGY CONSERVATION CODE(ADOPTS IECC 2018),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. AS PER 2020 FBC-ENERGY CONSERVATION CODE(ADOPTS IECC 2018) C404.7, PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:

A. THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.

B. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F

		OM F	IXTURE SCHEDU			T		WAT		WASTE	
m No.	Qty.		Description Manufacturer			Model		Cold	Waste	Usage	
X.LAV	6	LAVA	TORY	EXISTING TO	REMAIN	EXISTING TO REMAIN	TING TO REMAIN	1/2"	1/2"	Е	
X.WC	6	WATE	ER CLOSET	EXISTING TO	EXISTING TO REMAIN		EXISTING TO REMAIN		E	E	
X.UR	2	URINA	AL	EXISTING TO) REMAIN	EXIS	EXISTING TO REMAIN		Е	E	
KITC	HE	N E	QUIPMENT PLUM	BING SC	HEDULE			WA	ATER		WASTE
Item N	No.	Qty.	Description		Manufacture	er	Model	Hot	Col	d Direc	ct Indire
20		1	2 COMP SINK		JOHN BOOS &	СО	2B184-2D18				2"
20.1	1	1	FAUCET, WALL MOUNT		T & S BRASS		B-0231	1/2"++	1/2	"	
20.2	2	1	WASTE VALVE		T & S BRASS		B-3940				2"
30		1	MOP SINK**		JOHN BOOS & (CO	PBMS2016-12	1/2"+	1/2	3"	
31		2	HAND SINK, WALL MOUNT		JOHN BOOS &	СО	PBHS-W-0909-P-SSLR	1/2"++	1/2	1-1/2	2"
32		1	DISHTABLE, 'L' SHAPE		JOHN BOOS &	СО	SDT4-L7096SBK-R				2"
32.2	2	1	PRE-RINSE FAUCET, WALL		T & S BRASS		B-0133	1/2"++	1/2	"	
33		1	WAREWASH		HOBART US FOODSERVICE		AM15-1	3/4"+			1-1/2
34		1	DISHTABLE, STRAIGHT		JOHN BOOS &	СО	DT3B18244-2D1 <mark>8L</mark>				2"
35		2	FAUCET, WALL MOUNT		T & S BRASS		B-0231	1/2"+	1/2		
36		4	WASTE VALVE		T & S BRASS		B-3940				2"
60		1	ICE MAKER W/O BIN		HOSHIZAKI AMERICA		KM-1301SAJ		1/2	"	3/4"
60.1	1	1	FILTER SYSTEM, ICE MAKE	-R	HOSHIZAKI AMERICA		H9320-52		1/2		
61		1	BIN ICE		HOSHIZAKI AMERICA		B-1500SS				3/4"
65		1	BEVERAGE COUNTER W/ F	AUCET	JOHN BOOS & (СО	4CB4R10-3096-R	1/2"++	1/2	" 2"	2"
66		2	BEVERAGE DISPENSER		LANCER		ICD 2300 STD				3/4"
67		2	COFFEE/TEA MAKER		BUNN		36700.0009		1/2		
68		2	COFFEE MAKER		BUNN		23001.0069		1/2		
69		1	BEVERAGE COUNTER W/ F	FAUCET	JOHN BOOS & (СО	4CB4R10-3048-L	1/2"	1/2	" 2"	2"
70		1	ICE CREAM DIPPING CABI	NET	MASTERBILT		DD-66L				1/4"
71		1	DIPPER WELL		FMP		117-1339		1/2	"	1"
72		1	UNDERBAR DRY STORAGE		KROWNE		KR24-S24		1		1"
73		1	UNDERBAR HANDSINK		KROWNE		KR24-12ST	1/2"++	1/2	" 1-1/2	2"
101		10	UNDERBAR GLASS RACK		KROWNE		KR24-GSB3	1		/-	1"
102		3	CRAFT COCKTAIL MULTI-S		KROWNE		KR24-MS32R-10				1"
104		3	UNDERBAR MIXOLOGY SIN		KROWNE		KR24-MD8		1/2"		1"
106		2	UNDERBAR BLENDER STA		KROWNE		KR24-12BD	1/2"++	1/2		
113		1	UNDERBAR HANDSINK		KROWNE		KR24-12ST	1/2"++			
114		1	GLASSWASHER		KROWNE		GWH-24	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3/4		1"
TM\		9	THERMAL MIXING VALVE		WATTS		LFMMV	1/2"	1/2		
FS		20	FLOOR SINKS		ZURN		Z1900-23-31 (ZS1900 IF IN EXPOSED AREA		1/2	3"	
FD		8	FLOOR DRAINS*		ZURN		ZS415 W/ TYPE BS STRAINER	/		3"/4	

EVISIONS DATES:

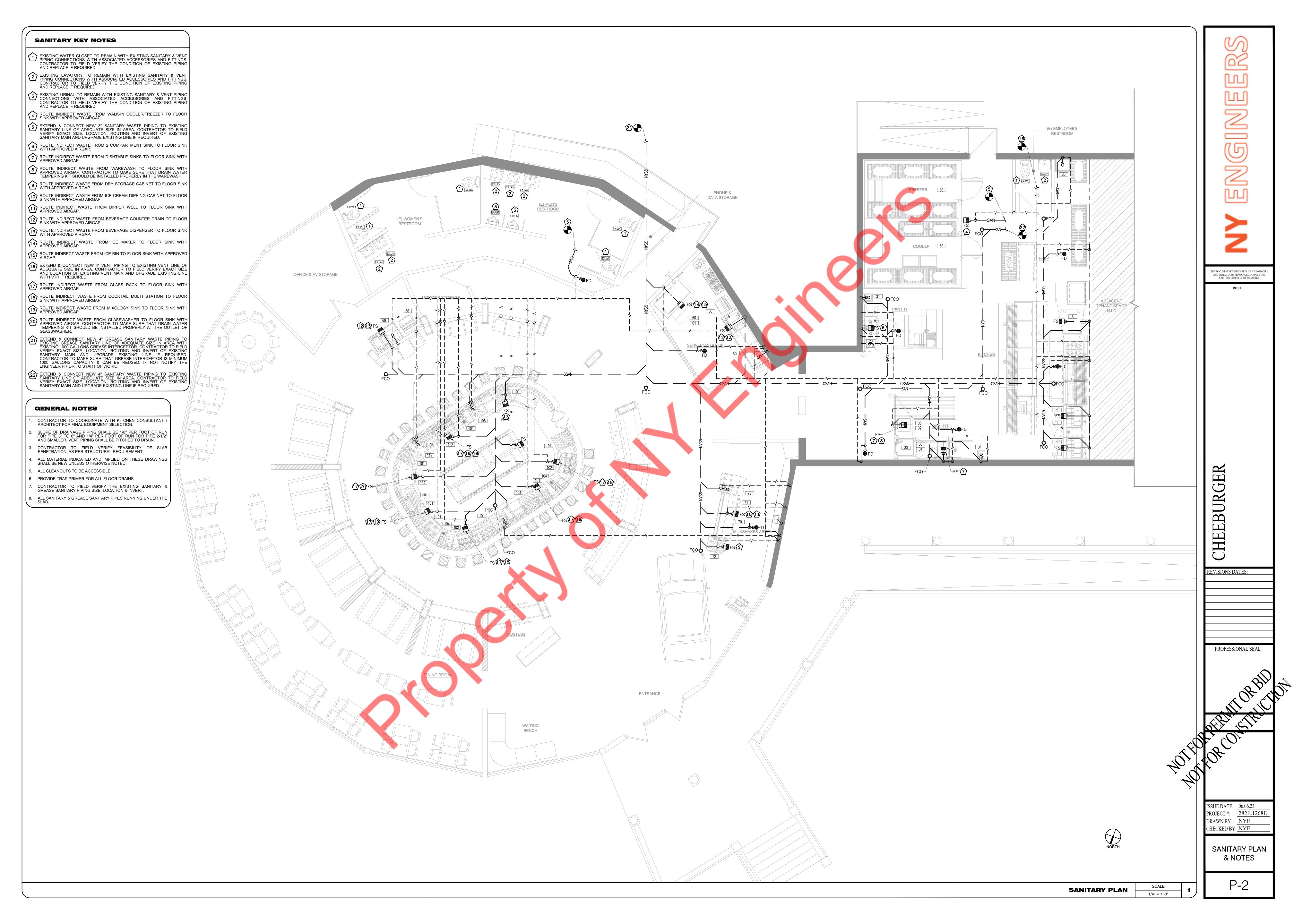
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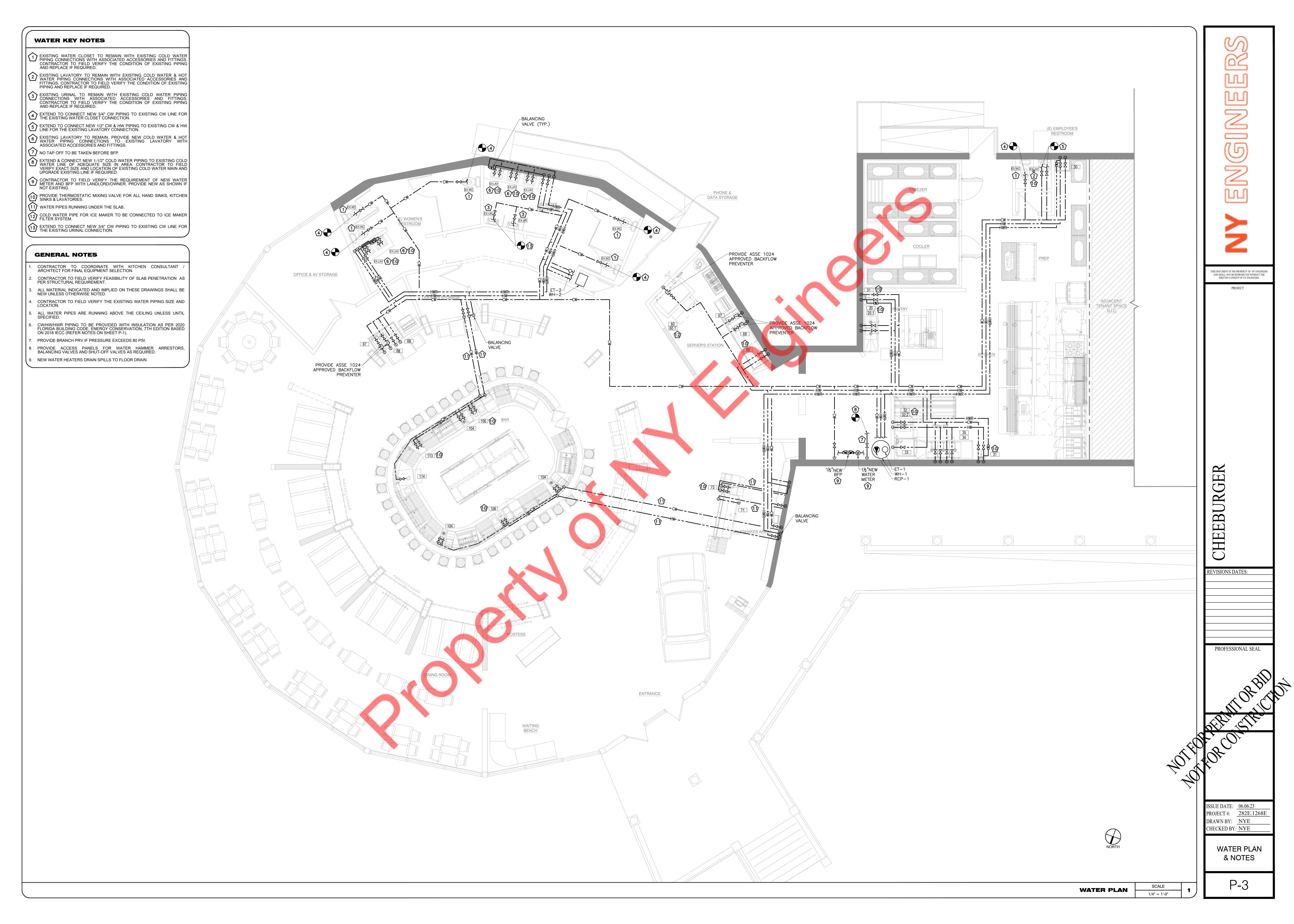
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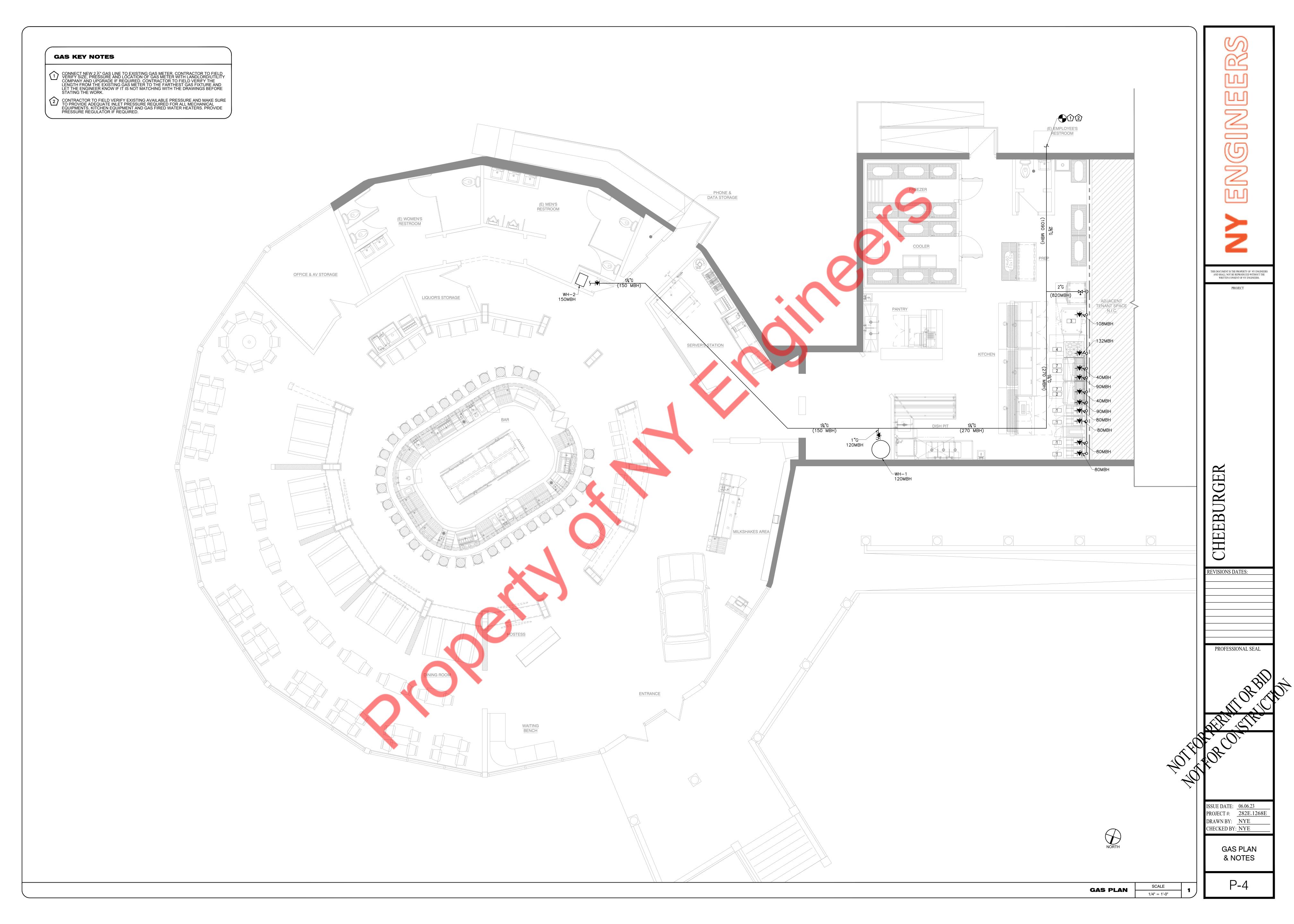
PROJECT

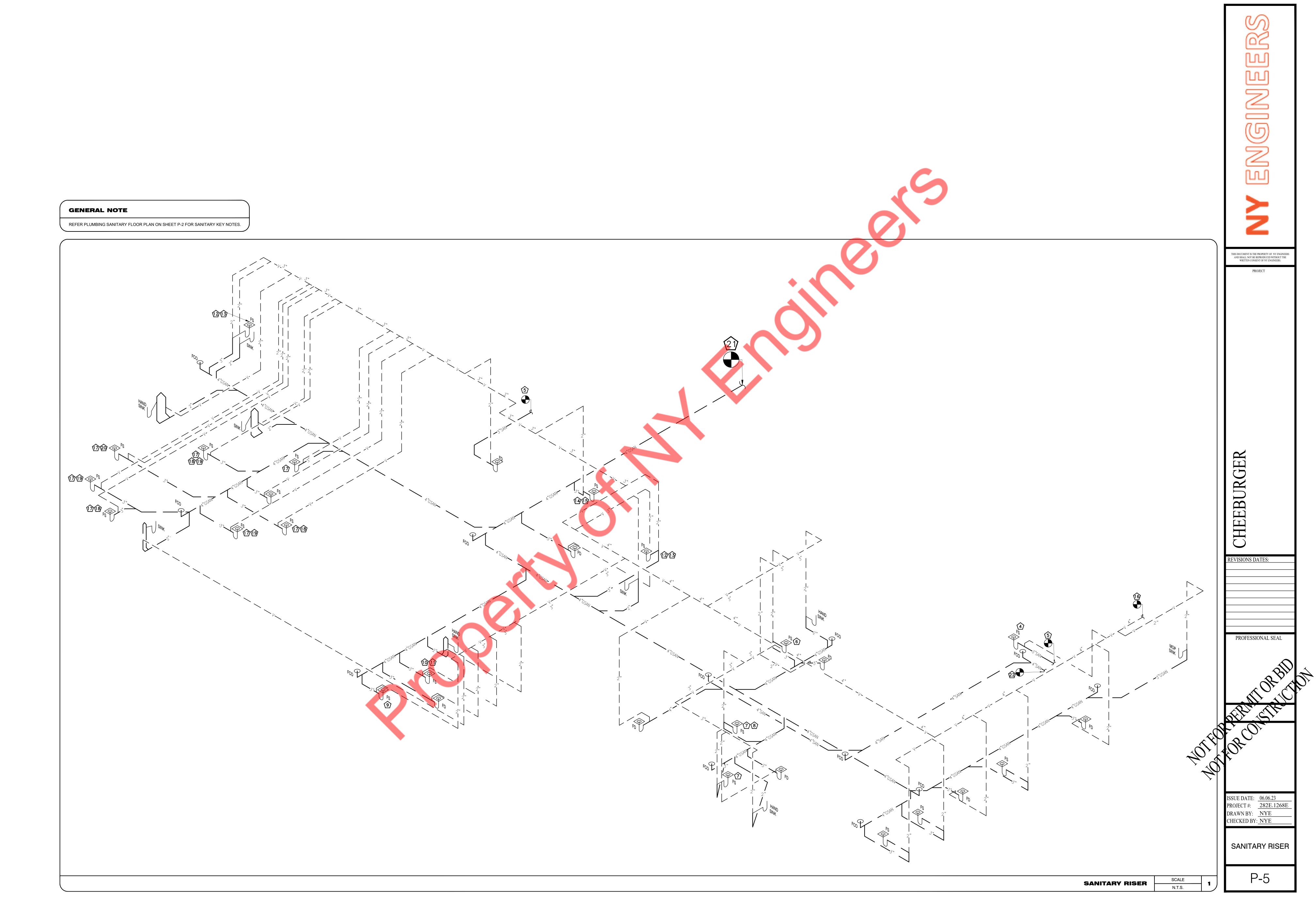
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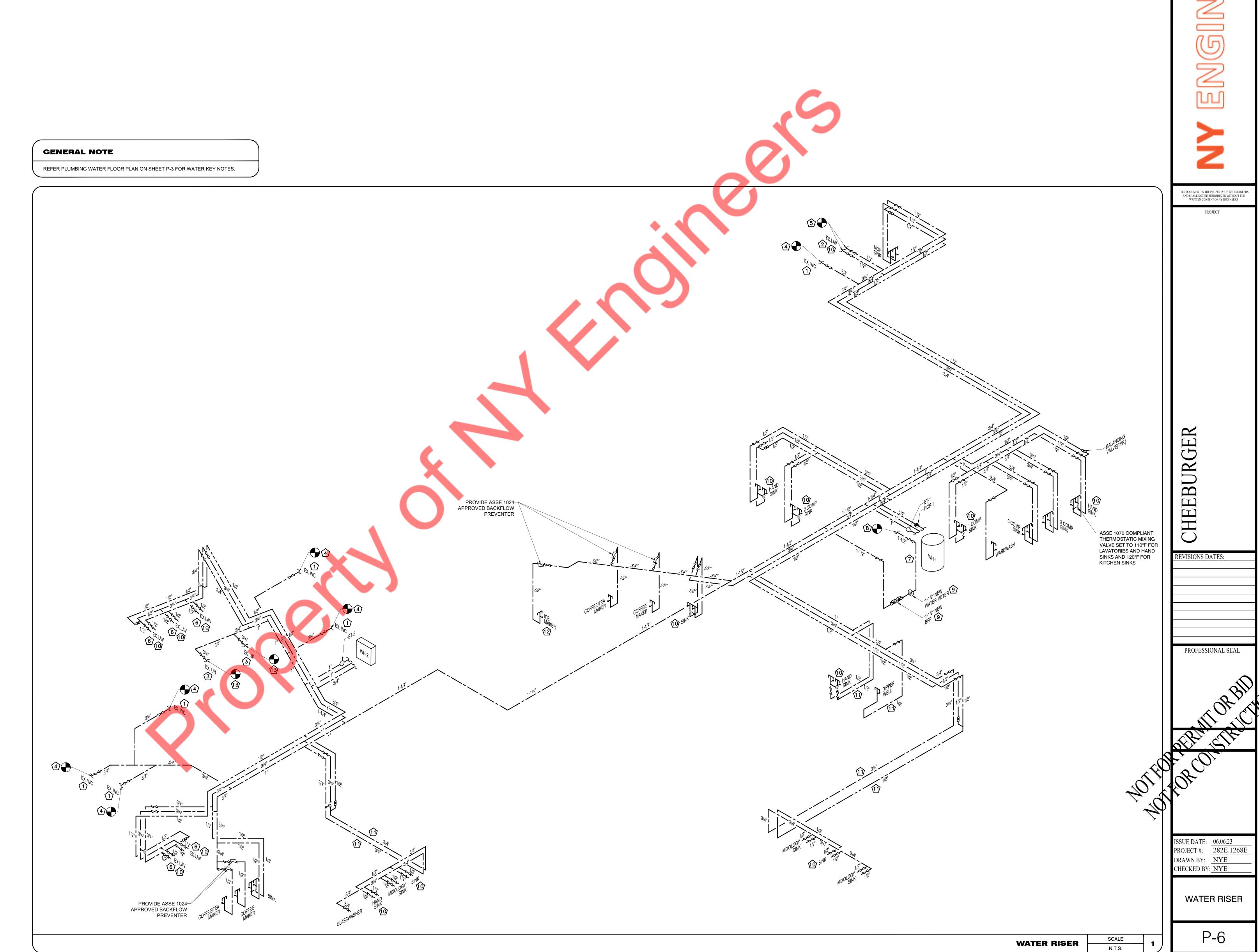
SSUE DATE: 06.06.23 PROJECT #: 282E.1268E DRAWN BY: NYE CHECKED BY: NYE **PLUMBING** EGENDS, NOTES DETAILS & SCHEDULES

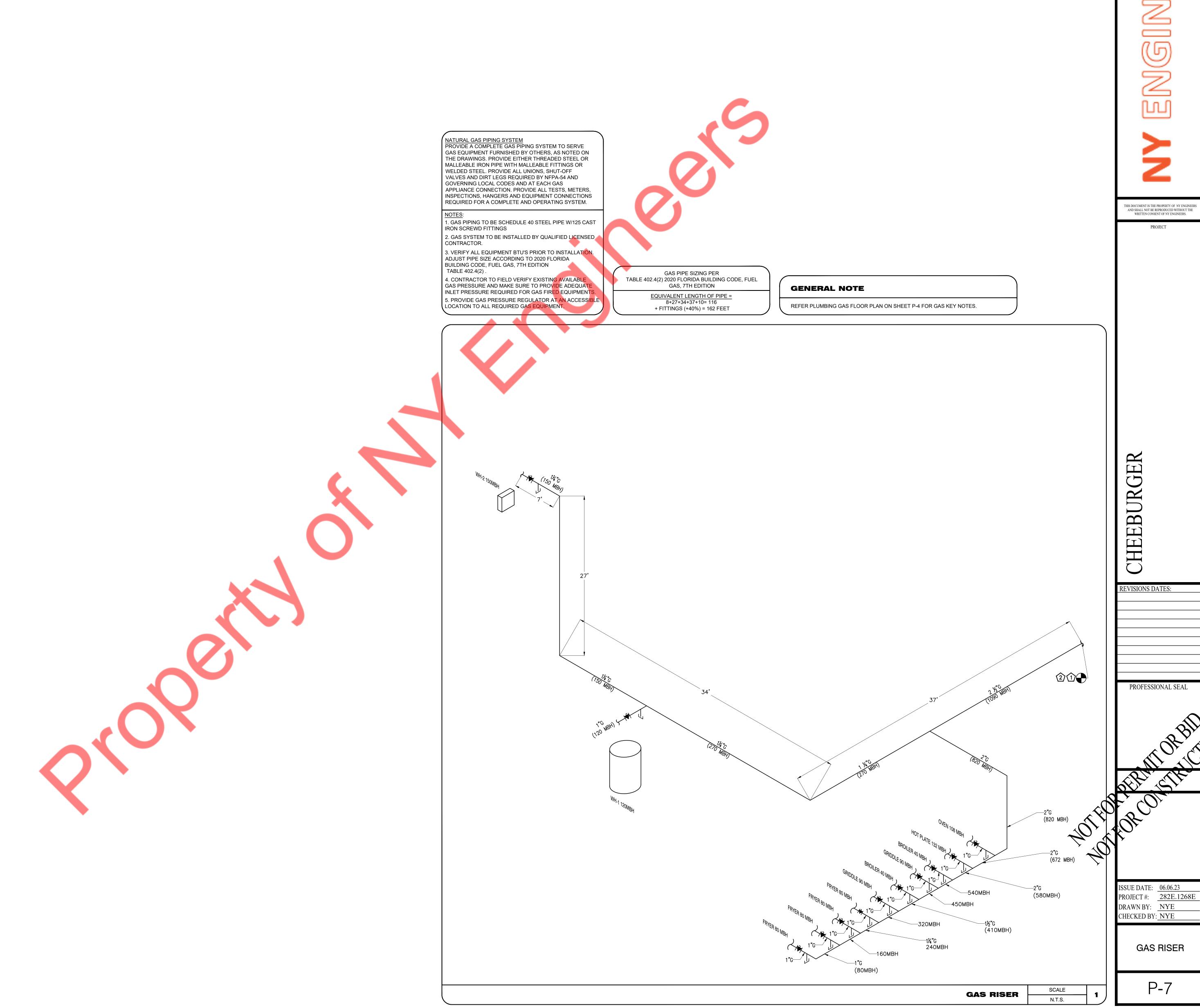












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