

EXISTING CONDITION NOTES

STOP AND READ
 THE CONTRACTOR AND SUB CONTRACTOR SHALL NOT INITIATE ANY WORK UNTIL EXISTING FIELD CONDITIONS ARE PROPERLY VERIFIED. WHEN DEMOLITION IS REQUIRED, 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.

SCOPE OF WORK

CONTRACTOR TO REUSE EXISTING 2.0 TON ROOF TOP UNIT AND INSTALL ONE NEW 3.0 TON ROOF TOP UNIT. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.

REUSE EXISTING TOILET EXHAUST FAN & PROVIDE NEW GENERAL EXHAUST FAN AS SHOWN ON PLAN.

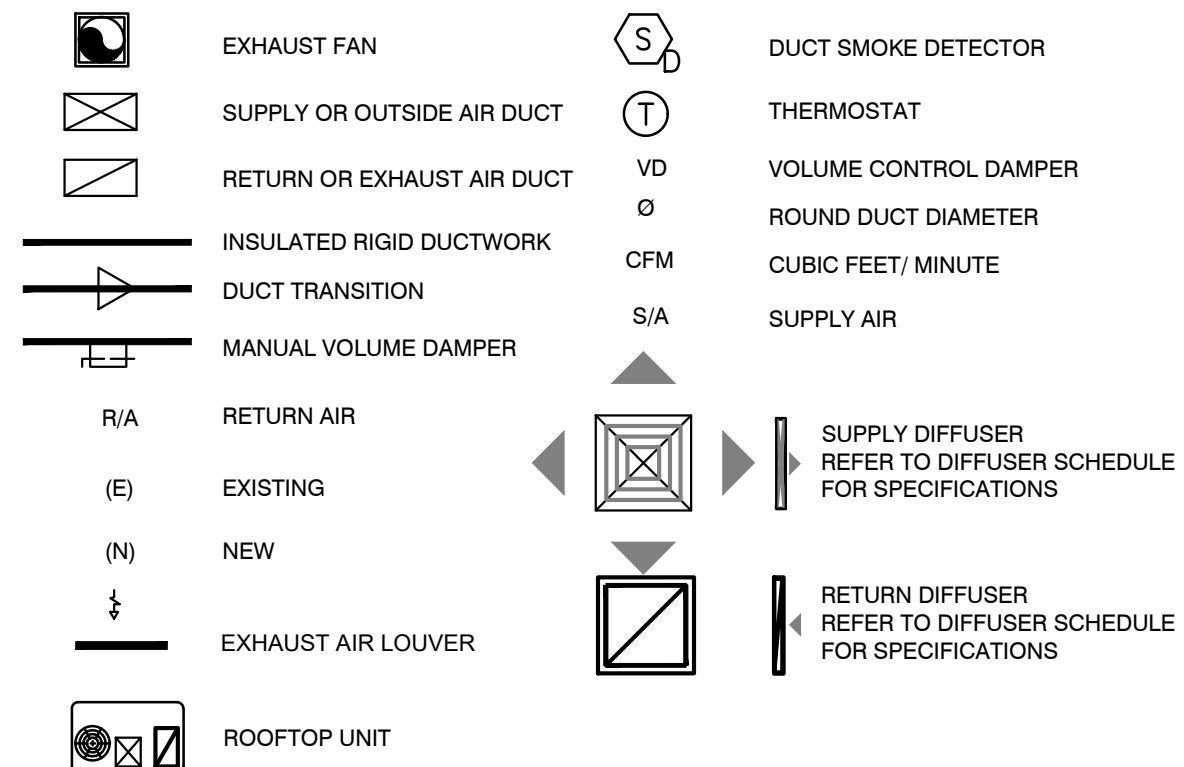
COORDINATE WITH GC ANY ADDITIONAL REFRIGERATION WORK REQUIRED AND WORK REQUIRED ON KITCHEN EXHAUST SYSTEMS AND WITH GC AND PLUMBING CONTRACTOR PROVIDING CONDENSATE LINES FOR MECHANICAL EQUIPMENT.

FLORIDA BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2023 FBC, 8TH EDITION AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL ENGINEER TO PROVIDE THE REQUIRED SPECIAL INSPECTIONS AND TESTS.
- 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.
- TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2023 FMC 8TH EDITION.
 - A. VENTILATION SYSTEM BALANCING 2023 FMC 8TH EDITION - 403.3.
- THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
 - A. STANDARDS OF HEATING 2023 FMC 8TH EDITION - 309.1
 - B. DUCT CONSTRUCTION AND INSTALLATION 2023 FMC 8TH EDITION - 603
 - C. AIR INTAKES, EXHAUSTS AND RELIEF 2023 FMC 8TH EDITION - 401.5
 - D. AIR FILTERS 2023 FMC 8TH EDITION - 605
- MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
- VENTILATION FOR ALL AREA SHALL COMPLY WITH 2023 FMC 8TH EDITION 401.
- 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 2023 FMC 8TH EDITION 403.3.
- REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE-RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
- 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.
- A WRITTEN REPORT DESCRIBING THE ACTIVITIES AND MEASUREMENTS COMPLETED IN ACCORDANCE WITH SECTION 2023 FLORIDA ENERGY BUILDING CODE 8TH EDITION C408.2.2.
- ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
- 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.

MECHANICAL SYMBOLS



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 ANY DISCREPANCIES BEFORE STARTING WORK.
- 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.
- 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.
- 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.
- 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.
- ALL RECTANGULAR DUCTS OVER CEILINGS FIBERGLASS DUCT BOARD OR SHEET METAL WITH EXTERNAL INSULATION.
- G.C. SHALL CONTRACT LANDLORD-APPROVED ROOFING CONTRACTOR TO FLASH AND SEAL ALL ROOF PENETRATIONS TO MAINTAIN ROOFING WARRANTY.
- 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.

MECHANICAL PLAN NOTES

- CONTRACTOR TO REUSE EXISTING 2.0 TON ROOF TOP UNIT AND INSTALL ONE NEW 3.0 TON ROOF TOP UNIT. PROVIDE NEW DUCTWORK AND NECESSARY ACCESSORIES FOR COMPLETE HVAC SYSTEM.
- ALL DUCTS SHALL BE EITHER FIBERGLASS DUCT BOARD OR 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 90A.
- THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE TYPE. MOUNT THERMOSTAT 48" A.F.F. COORDINATE LOCATION OF THERMOSTAT. 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 EQUIPMENT.
- 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.
 - ALL INDOOR DUCT AND PLENUM INSULATION SCHEDULE:
 - 1. CONCEALED, RECTANGULAR, ROUND AND FLAT-OVAL, SUPPLY-RETURN, OUTDOOR-AND EXHAUST-AIR DUCT AND AIR PLENUM INSULATION:
 - 2. 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 |
| 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 A/C 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 MANUFACTURERS INSTRUCTIONS AND ACCORDING TO THE BEST PRACTICE.
- 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.
- 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.

CODE INFORMATION

2023 FLORIDA BUILDING CODE 8TH EDITION
 2023 FLORIDA EXISTING BUILDING CODE 8TH EDITION
 2023 FLORIDA FUEL GAS BUILDING CODE 8TH EDITION
 2023 FLORIDA PLUMBING CODE 8TH EDITION
 2023 FLORIDA MECHANICAL CODE 8TH EDITION
 2020 NATIONAL ELECTRIC CODE NEC
 ENERGY CODE - ASHRAE 90.1 2019

ROOFTOP UNIT SCHEDULE

| UNIT TAG | RTU-1(E) | RTU-2(N) |
|--------------------|------------------------|------------------------------------|
| UNIT TYPE | HEAT PUMP (V.I.F) | HEAT PUMP |
| MANUFACTURER | RHEEM (V.I.F) | CARRIER (OR EQUIVALENT) |
| MODEL | RSPM-A024JK000 (V.I.F) | 50FEQ040A2A5-0A9A0 (OR EQUIVALENT) |
| STATUS | EXISTING | NEW |
| LOCATION | ROOF | ROOF |
| TOTAL CAPACITY | 2 TONS (V.I.F) | 3.0 TONS |
| TOTAL COOLING MBH | S.A.E | 37.1 |
| TOTAL SENSIBLE MBH | S.A.E | 28.0 |
| EER2/SEER2 | S.A.E | 11.5/13.4 |
| HEAT PUMP MBH | S.A.E | 33.5 |
| COP2/HSPF2 | S.A.E | 3.6/6.7 |
| SUPPLY AIR (CFM) | 800 (V.I.F) | 1200 |
| OUTDOOR AIR (CFM) | 130 | 240 |
| VOLTAGE/PHASE/HZ | 208-230/1/60 (V.I.F) | 208-230/3/60 |
| MCA (A) | 23 (V.I.F) | 22 |
| MOCPP (A) | 35 (V.I.F) | 30 |
| ESP (IN. OF H2O) | S.A.E | 0.75 |
| WEIGHT (LBS) | S.A.E | 650 LBS |

NOTES FOR EXISTING RTU:

- EXISTING RTU WITH ALL ACCESSORIES TO REMAIN SAME AND TO BE REUSED.
- CONTRACTOR TO FIELD VERIFY IF RTU IS WORKING AT THEIR 100% RATED CAPACITY. INFORM TO DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND IN PERFORMANCE PRIOR TO CONSTRUCTION.
- IF REQUIRED, PROVIDE NEW THERMOSTAT AND TEMPERATURE SENSOR COMPATIBLE WITH EXISTING RTU. CO-ORDINATE FINAL LOCATION OF T-SENSOR WITH ARCHITECT/OWNER.
- CONTRACTOR TO BALANCE OUTSIDE AIR DAMPER ON EXISTING RTU TO MATCH VALUE MENTIONED IN AIR BALANCE TABLE.
- REPLACE FILTERS, IF REQUIRED.
- V.I.F: VERIFY IN FIELD, S.A.E: SAME AS EXISTING.

NOTES FOR NEW RTU:

- PROVIDE 14" ROOF CURB. CONTRACTOR SHALL FIELD INSULATE.
- MERV-13 STANDARD FILTERS.
- BOTTOM DISCHARGE & RETURN CONFIGURATION.
- UNIT TO BE PROVIDED WITH LOW LEAKAGE VOLUME CONTROL DAMPER, NEMA 3R DISCONNECT SWITCH, VIBRATION ISOLATION SPRING SUPPORTED BLOWER, INTAKE HOOD, SCREEN INTAKE.
- PROVIDE FLEXIBLE CONNECTION AT DUCT CONNECTION TO UNIT.
- PROVIDE VIBRATION ISOLATOR FOR UNIT MOUNTING.
- PROVIDE ALL COMPRESSORS WITH 5 YEARS WARRANTY.
- ANTI SHORT CYCLE TIMER.
- CONNECT CONDENSATE DRAIN LINE FROM RTU ON THE ROOF TO THE NEAREST DRAIN POINT. CONNECT TO A DRAIN LINE VIA AIR GAP IN AN APPROVED MANNER.
- CONTRACTOR TO BALANCE OUTSIDE AIR DAMPER ON RTU TO MATCH VALUE MENTIONED IN EQUIPMENT SCHEDULE.

CONTRACTOR SHALL VERIFY EXACT ELECTRICAL CONNECTIONS, WIRE SIZES, BREAKERS, DISCONNECT ETC. PRIOR TO ORDERING AND BID.

FAN SCHEDULE

| DESIGNATION | EF-1(E) | EF-2(N) |
|--------------|------------|------------------|
| STATUS | EXISTING | NEW |
| QUANTITY | 1 | 1 |
| MANUFACTURER | S.A.E | GREENHECK |
| MODEL | S.A.E | SP-A200 |
| CFM & ESP | 70 (V.I.F) | 120@ 0.5" IN. WC |
| HP | S.A.E | - |
| FLA(AMPS) | S.A.E | 0.46 |
| ACCESSORIES | BD | BD |
| WEIGHT (LBS) | S.A.E | 35 |
| MCA/MOCPP | S.A.E | 0.6/15 |
| VOLT/PH/HZ | S.A.E | 115/1/60 |
| NOTES | 1,2,3,4 | 1,2,3 |

NOTES FOR EF-1(E),2(N):

- COORDINATE ELECTRICAL POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- PROVIDE BACK DRAFT DAMPER.
- EF-1(E) INTERLOCK WITH ROOM LIGHT SWITCH & EF-2(N) INTERLOCK WITH RTU-1(E).
- V.I.F: VERIFY IN FIELD, S.A.E: SAME AS EXISTING.

OCCUPANCY CALCULATION PER 2023 FLORIDA MECHANICAL CODE, TABLE 403.3.1.1

| | | |
|---------------|-------------|-----------|
| SEATING AREA | 380 SQ. FT. | 19 PEOPLE |
| FRONT SERVICE | 100 SQ. FT. | 3 PEOPLE |
| BACK OF HOUSE | 170 SQ. FT. | 3 PEOPLE |
| | TOTAL | 25 PEOPLE |

REFER TO THE OCCUPANT LOAD CALCULATIONS ON SHEET CS-1 FOR ARCHITECTURAL OCCUPANCY CALCULATION.

VENTILATION REQUIREMENTS PER 2023 FLORIDA MECHANICAL CODE, TABLE 403.3.1.1

| OUTSIDE AIR CALCULATIONS | |
|---|---|
| SEATING AREA | 380 SQ. FT. X 0.18 CFM/SQ. FT. = 69 CFM |
| FRONT SERVICE | 100 SQ. FT. X 0.12 CFM/SQ. FT. = 12 CFM |
| BACK OF HOUSE | 170 SQ. FT. X 0.12 CFM/SQ. FT. = 21 CFM |
| STORAGE | 20 SQ. FT. X 0.12 CFM/SQ. FT. = 3 CFM |
| OUTSIDE AIR REQUIRED | 294 CFM |
| BREATHING ZONE OUTDOOR AIRFLOW ZONE EFFECTIVENESS (Vbz) | = 294 CFM |
| ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) | = 0.8 |
| ZONE OUTDOOR AIRFLOW (Voz=Vbz/Ez) | = 370 CFM |
| OUTSIDE AIR PROVIDED | 370 CFM |
| EXHAUST AIR CALCULATIONS | |
| BACK OF HOUSE | 170 SQ. FT. X 0.7 CFM/SQ. FT. = 119 CFM |
| TOILET | 1 X 70 CFM PER FIXTURE = 70 CFM |
| EXHAUST AIR PROVIDED | 190 CFM |
| AIR BALANCE | |
| OUTSIDE AIR PROVIDED | +370 CFM |
| RTU-1(E) | -120 CFM |
| EF-2(N) | -70 CFM |
| BUILDING PRESSURE | +180 CFM |

DIFFUSER SCHEDULE

| MANUFACTURER | TITUS | TITUS | TITUS |
|----------------|---------------|---------------|----------------|
| DESIGNATION | A1 | A2 | R1 |
| USE | SUPPLY | SUPPLY | RETURN |
| MODEL | TDC-AA | TDC-AA | 56FL |
| MOUNTING | SAT CEILING | SAT CEILING | SAT CEILING |
| LOCATION | AS SHOWN | AS SHOWN | AS SHOWN |
| FACE SIZE | 24" X 24" | 12" X 12" | 24"X24" |
| NECK SIZE | REFER TABLE-A | REFER TABLE-A | REFER TABLE-A |
| FRAME TYPE | LAYIN | LAYIN | LAY IN/FLANGED |
| NOISE CRITERIA | <30 | <30 | <30 |
| ACCESSORIES | VOLUME DAMPER | VOLUME DAMPER | VOLUME DAMPER |

NOTES:

- MOUNTING FRAME TYPE SHALL BE COORDINATED WITH CEILING/WALL CONSTRUCTION.
- COORDINATE FINAL FINISH/COLOR WITH ARCHITECT/OWNER.
- PROVIDE ROUND TO SQUARE NECK ADAPTOR.
- PROVIDE 4 WAY AIR THROW PATTERN UNLESS NOTES OR INDICATED.

TABLE -A

| FOR SQUARE NECK | | FOR ROUND NECK | |
|-----------------|-----------|----------------|-----------|
| NECK SIZE | CFM RANGE | NECK SIZE | CFM RANGE |
| 6"X6" | 0-115 | 06" | 0-100 |
| 8"X8" | 116-220 | 08" | 101-200 |
| 10"X10" | 221-350 | 010" | 201-399 |
| 12"X12" | 351-520 | 012" | 400-600 |
| 14"X14" | 521-730 | | |
| 16"X16" | 731-840 | | |
| 18"X18" | 840-1035 | | |
| 20"X20" | 1036-1285 | | |
| 22"X22" | 1286-1570 | | |

REVISIONS DATES:

08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A1
 DRAWN BY: NYE
 CHECKED BY: NYE

HVAC NOTES & SCHEDULES

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

REVISIONS DATES:
 Δ 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

HVAC FLOOR PLAN

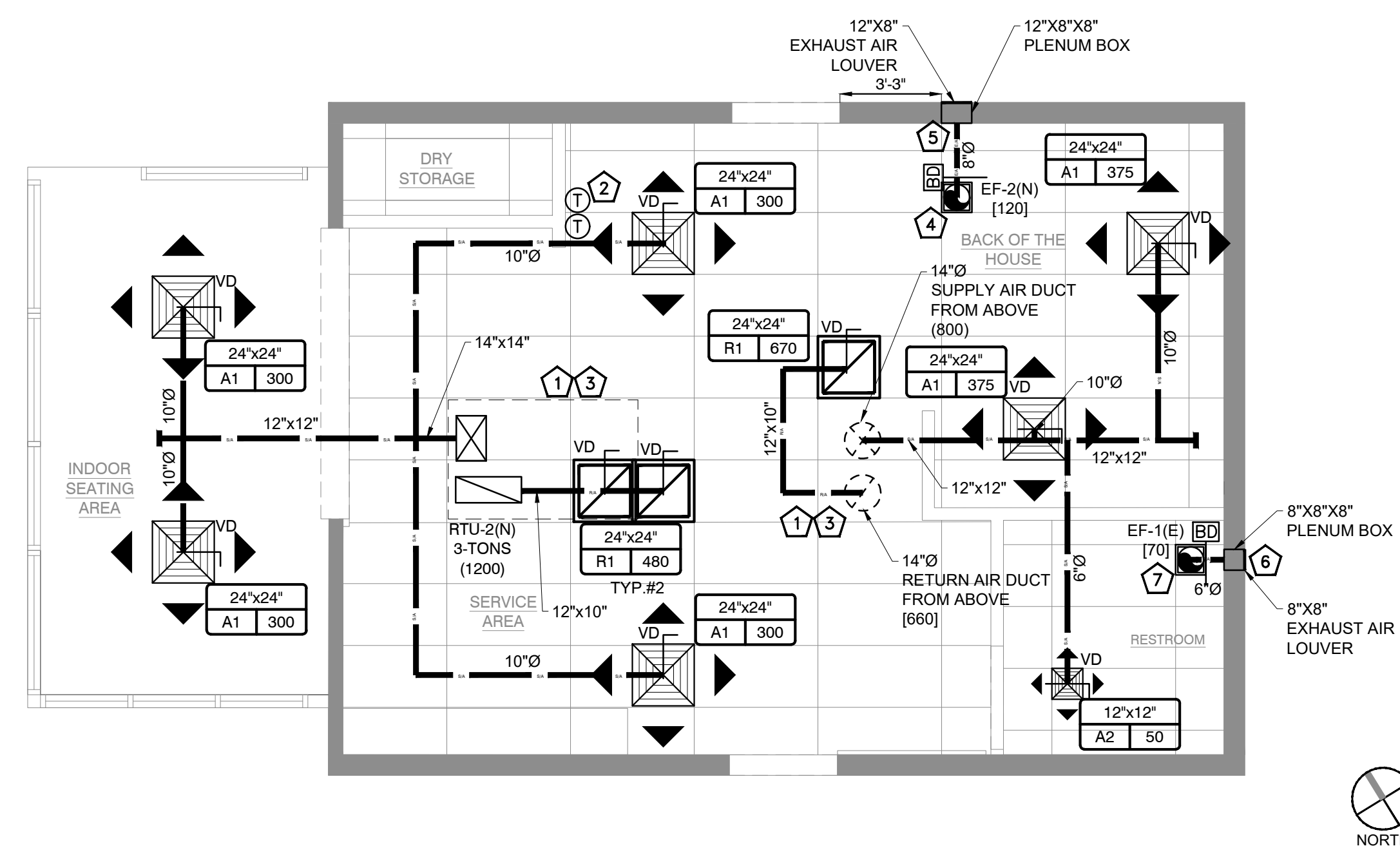
M-2

KEYED NOTES #

- 1 EXTEND SUPPLY AND RETURN DUCTWORK FROM ROOFTOP UNIT TO SPACE, EXTEND AS SHOWN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF RTU ON SITE.
- 2 INSTALL AND WIRE A NEW 7-DAY PROGRAMMABLE THERMOSTAT FOR RTU-1(E) AND RTU-2(N). MOUNT THERMOSTAT 48" A.F.F. PROVIDE LOCKING CLEAR PLASTIC COVER FOR THERMOSTAT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- 3 CONTRACTOR TO PROVIDE TEMP. SENSOR IN RETURN AIR DUCT & WIRE BACK TO RESPECTIVE RTUS.
- 4 CEILING MOUNTED EXHAUST FAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION. EF-1(E) INTERLOCK WITH ROOM LIGHT SWITCH & INTERLOCK EF-2(N) WITH RTU-1(E). COORDINATE WITH ELECTRICAL CONTRACTOR.
- 5 ROUTE 08" KITCHEN EXHAUST DUCT GOING OUT THROUGH SIDE-WALL LOUVER. MAINTAIN A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES, AND 3'-0" FROM ANY OPERABLE OPENINGS.
- 6 ROUTE 08" TOILET EXHAUST DUCT GOING OUT THROUGH SIDE-WALL LOUVER. MAINTAIN A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES, AND 3'-0" FROM ANY OPERABLE OPENINGS.
- 7 EXISTING CEILING MOUNTED EXHAUST FAN TO REMAIN AS IT IS. CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION.

GENERAL NOTES

- A. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
- B. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING. OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED, PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
- C. COORDINATE LOCATIONS AND SIZES OF INTAKE & EXHAUST OPENINGS WITH OWNER AND RESPECTIVE ENGINEER.
- D. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED. VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- E. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
- F. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- G. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
- H. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
- I. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
- J. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
- K. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
- L. NEW DUCTWORK IN CONCEALED AREAS MAY BE RECTANGULAR WITH EQUIVALENT CROSS SECTIONAL FLOW AREA.
- M. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FIRE RATINGS OF THE WALLS.
- N. ARCHITECTURAL LAYOUT AND DIMENSIONS FOR EQUIPMENT TO TAKE PRECEDENCE OVER MEP.
- O. LIMIT FLEXIBLE DUCT LENGTH TO 5 LINEAR FEET. MAKE SURE DUCT IS FULLY STRETCHED OUT WITH NO KINKS & SHARP BENDS.
- P. PROVIDE CORD OPERATED DAMPER IN INACCESSIBLE CEILING.
- Q. PROVIDE INTERNAL INSULATION FOR ALL EXPOSED DUCTWORK AND EXTERNAL FOR ALL DUCTWORK IN CONCEALED AREAS.
- R. ACOUSTICALLY LINE THE FIRST 10'-0" OF BOTH SUPPLY AND RETURN DUCTS.



HVAC FLOOR PLAN

SCALE
 1/4" = 1'-0"

1

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

REVISIONS DATES:
 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

HVAC ROOF PLAN

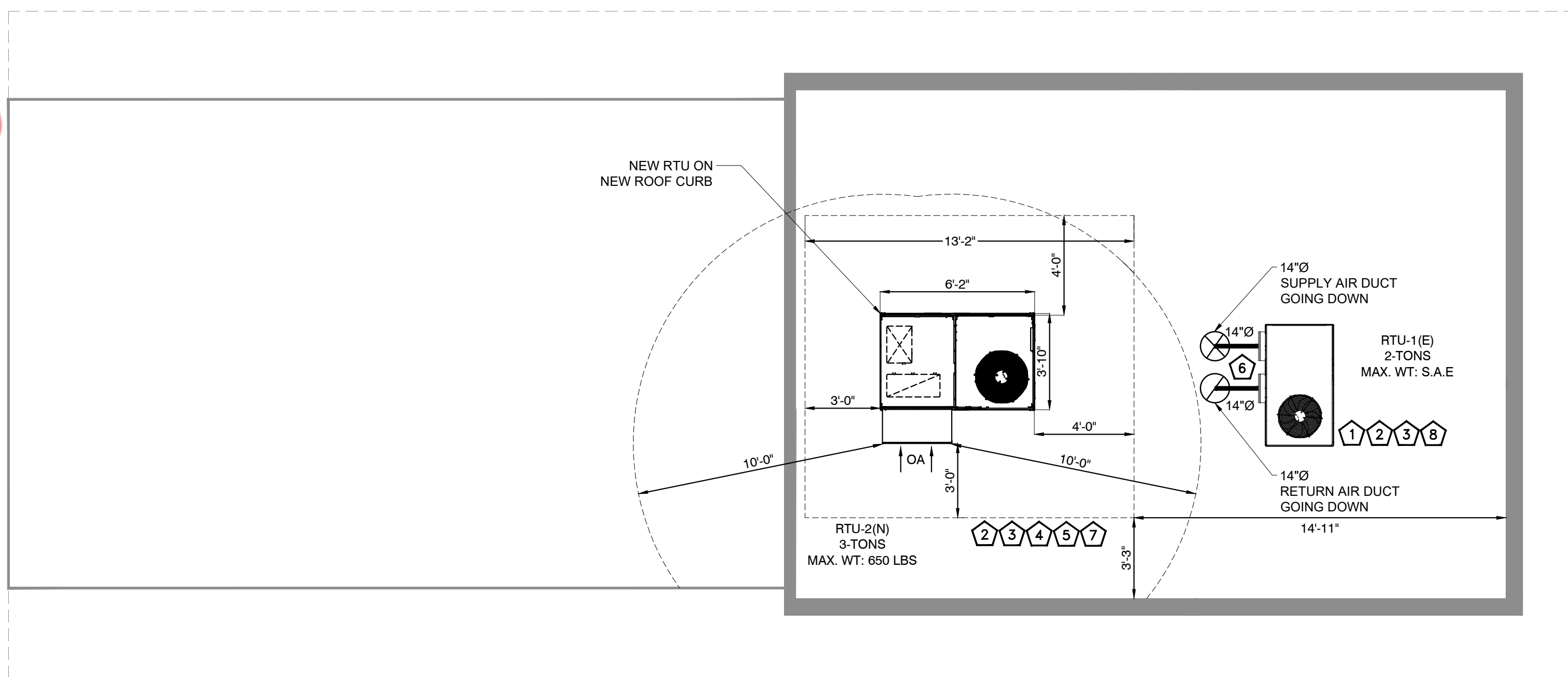
M-3

KEY NOTES

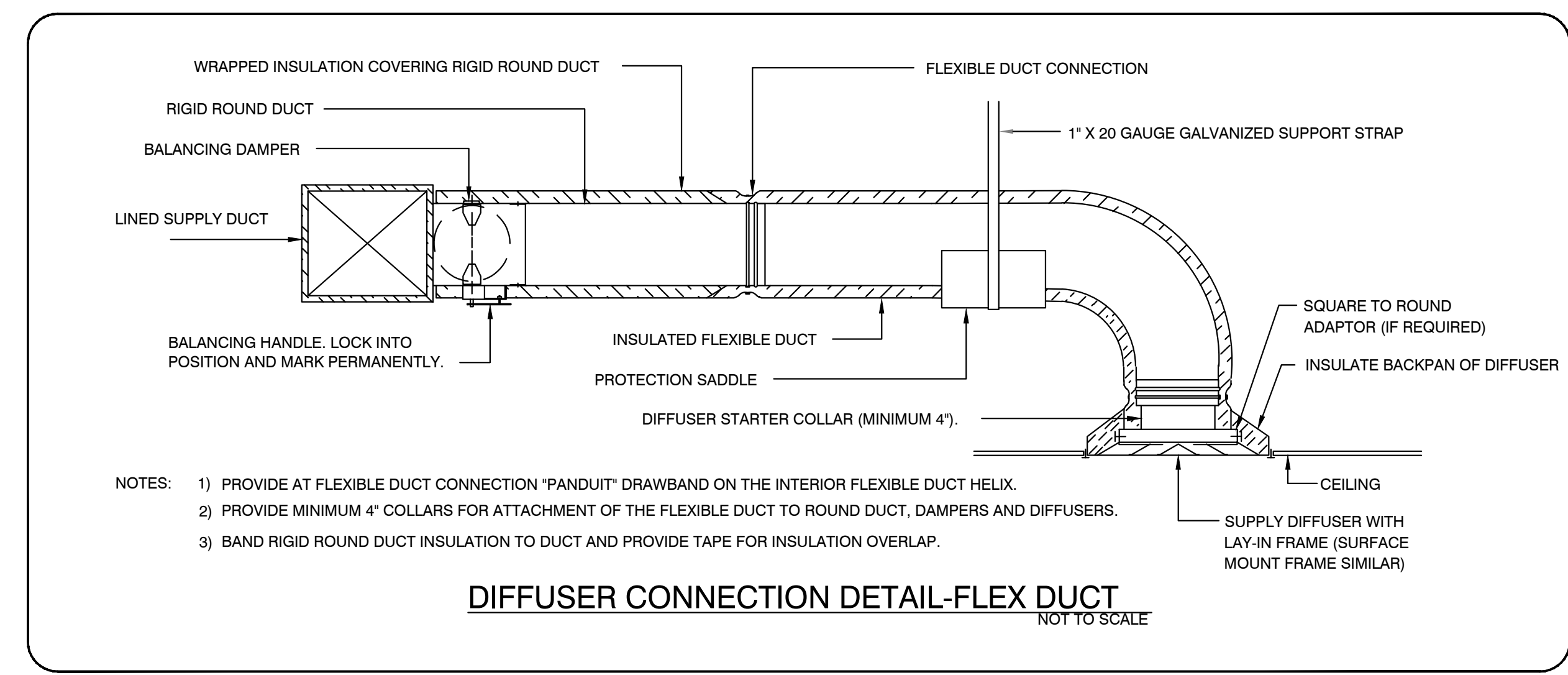
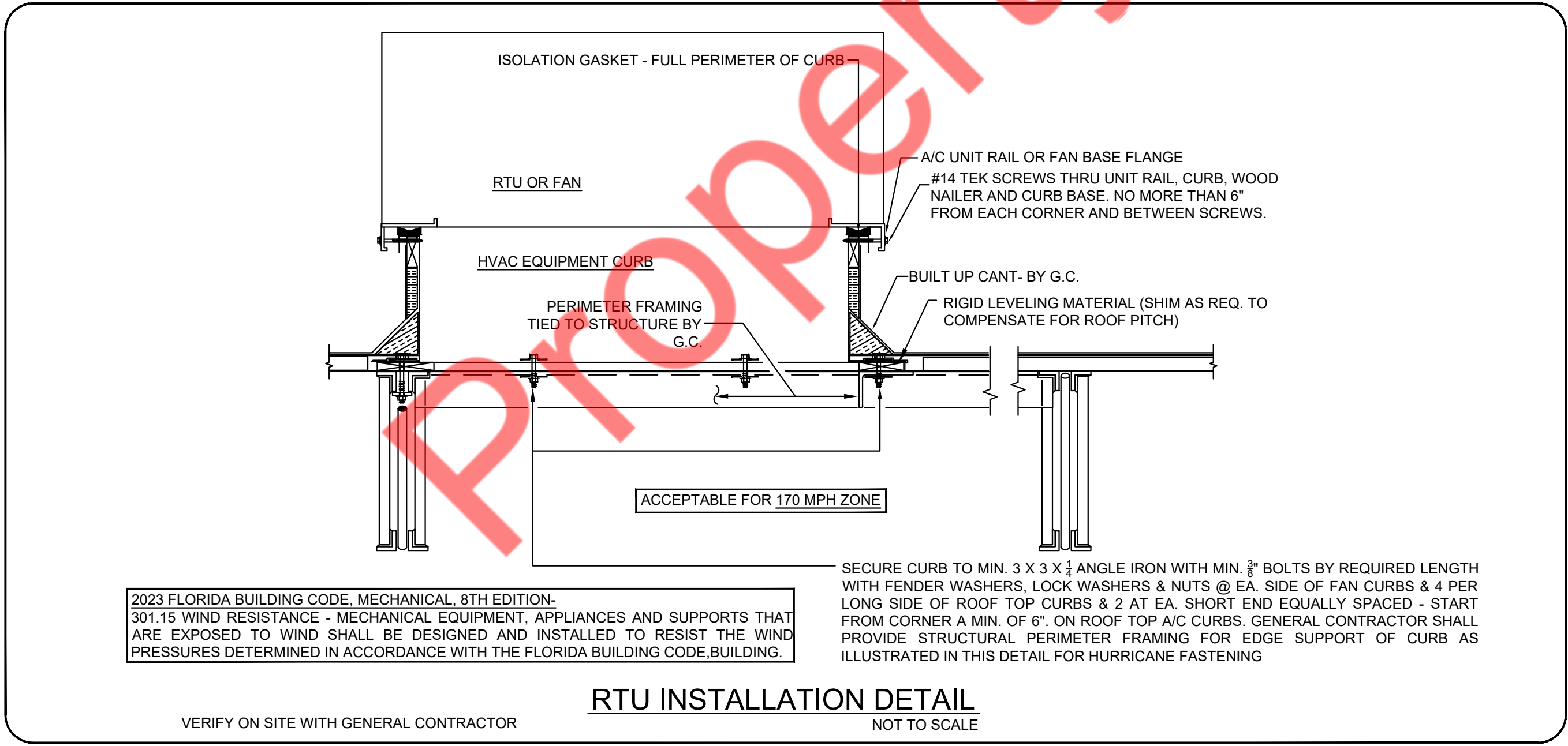
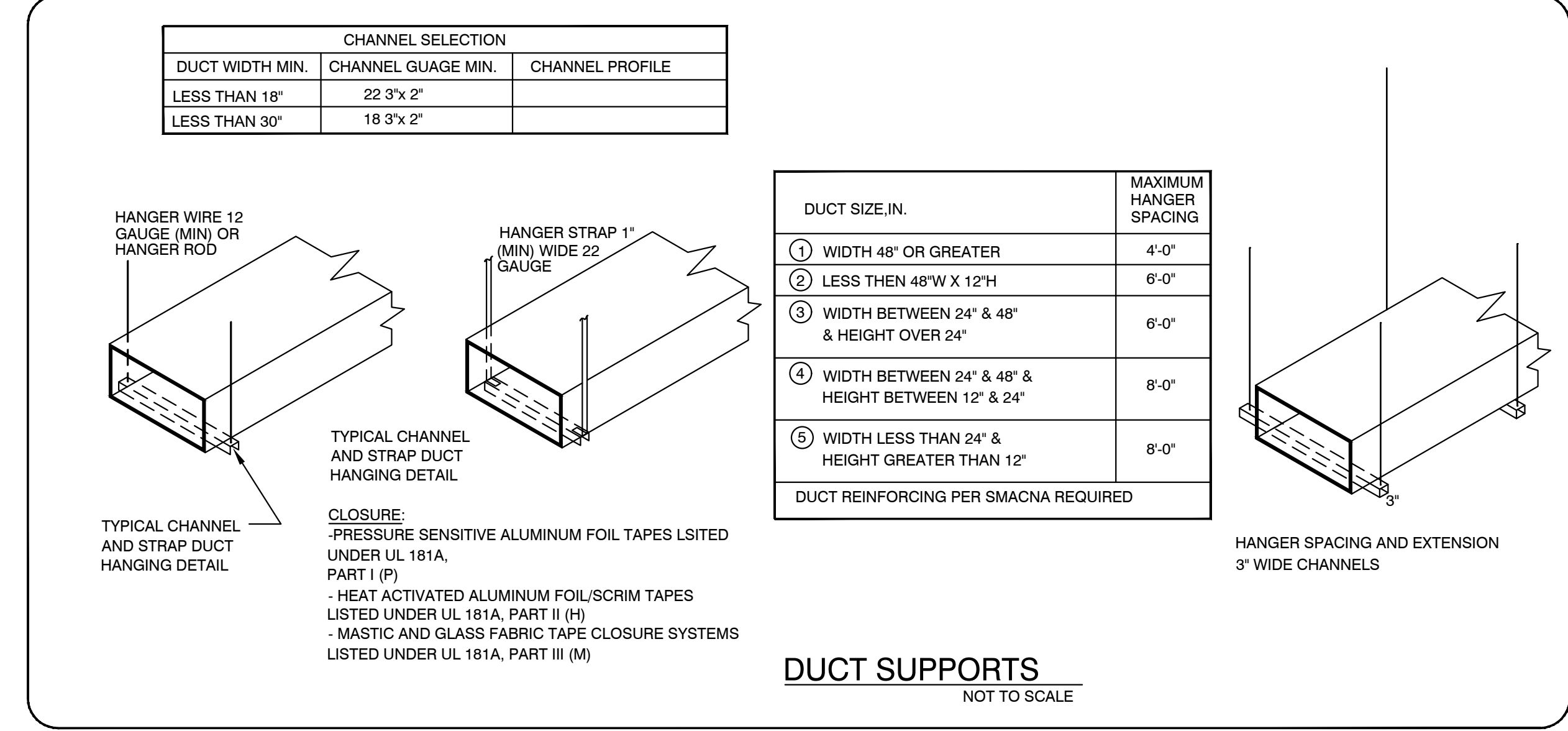
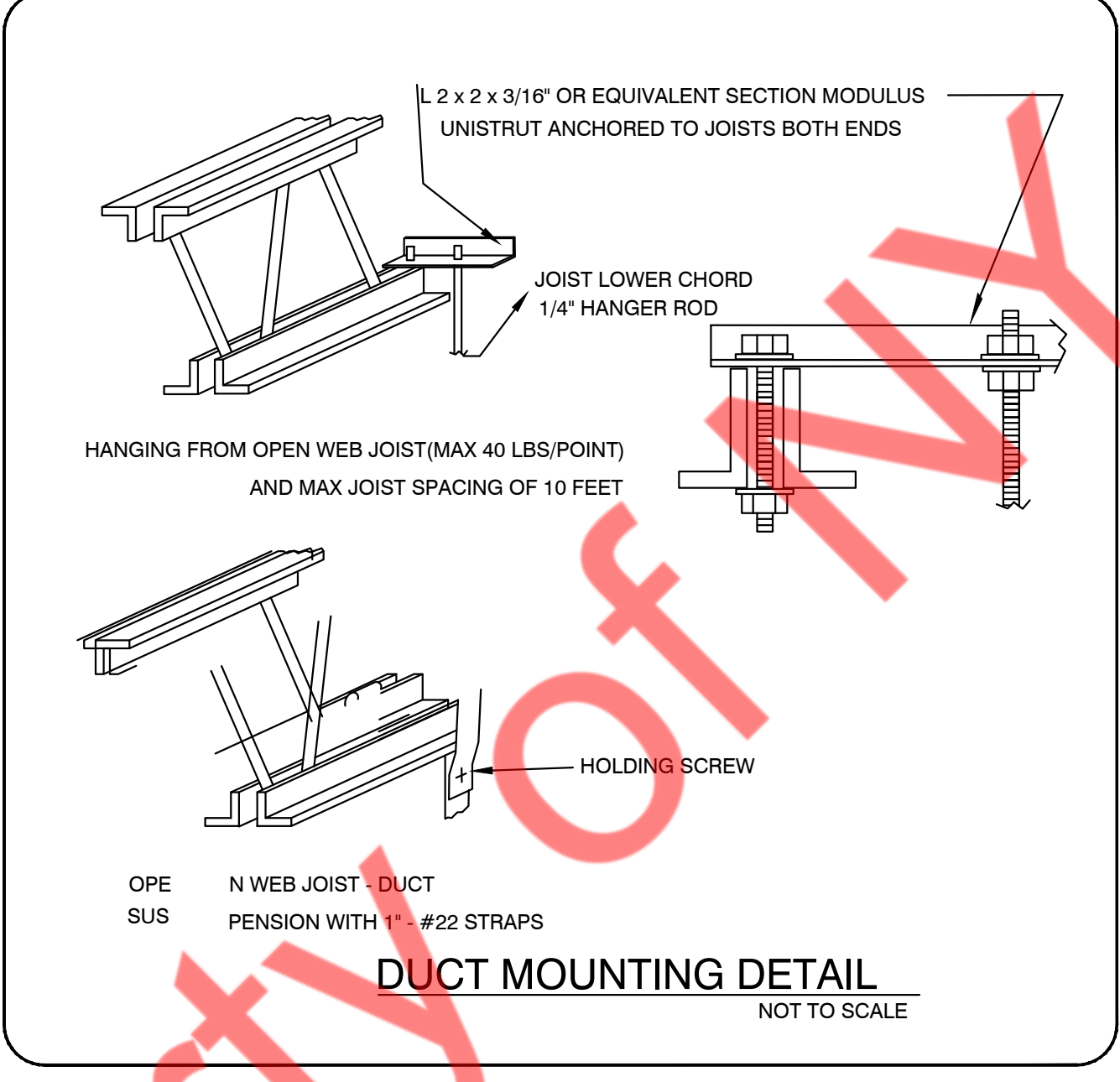
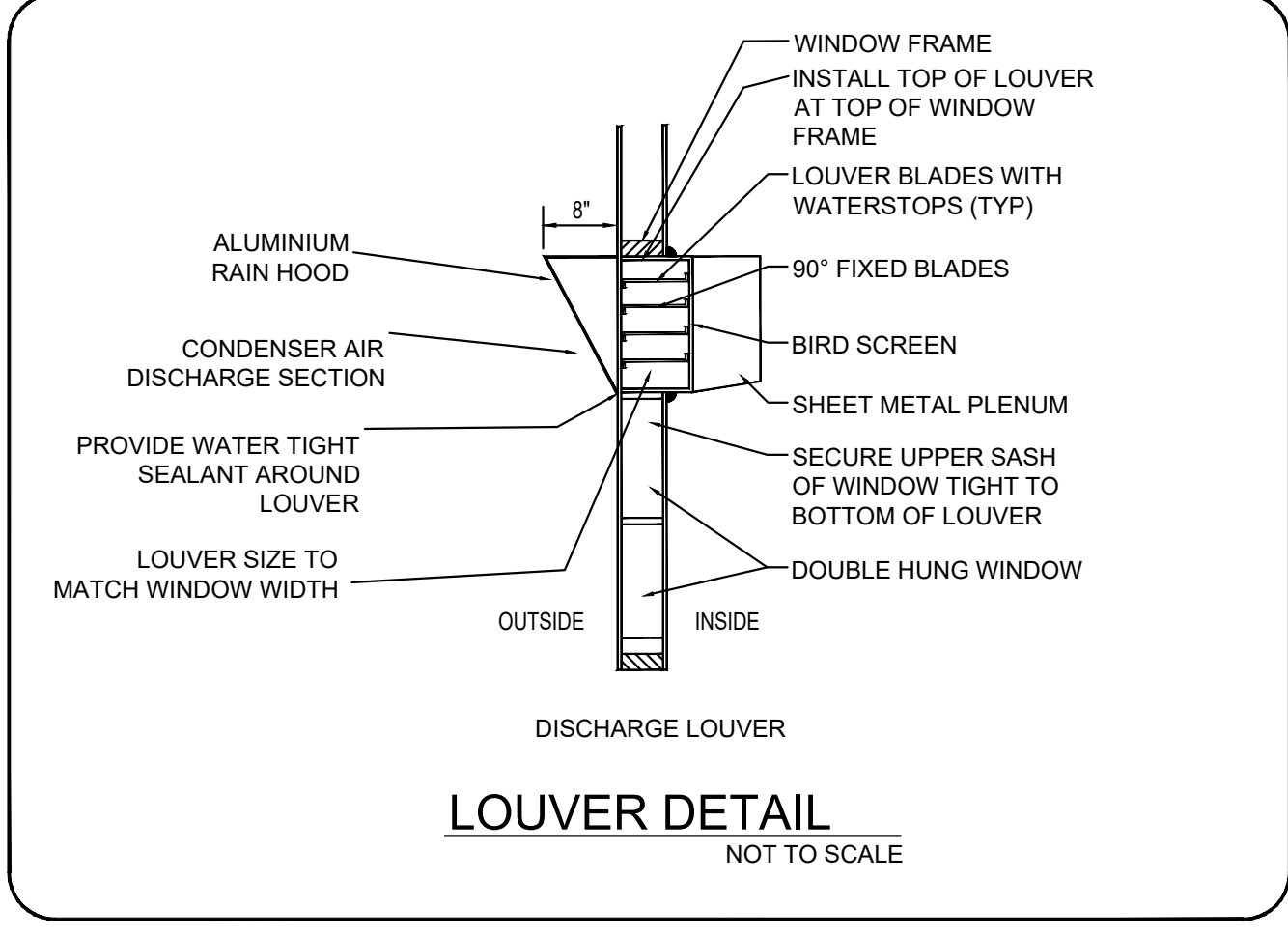
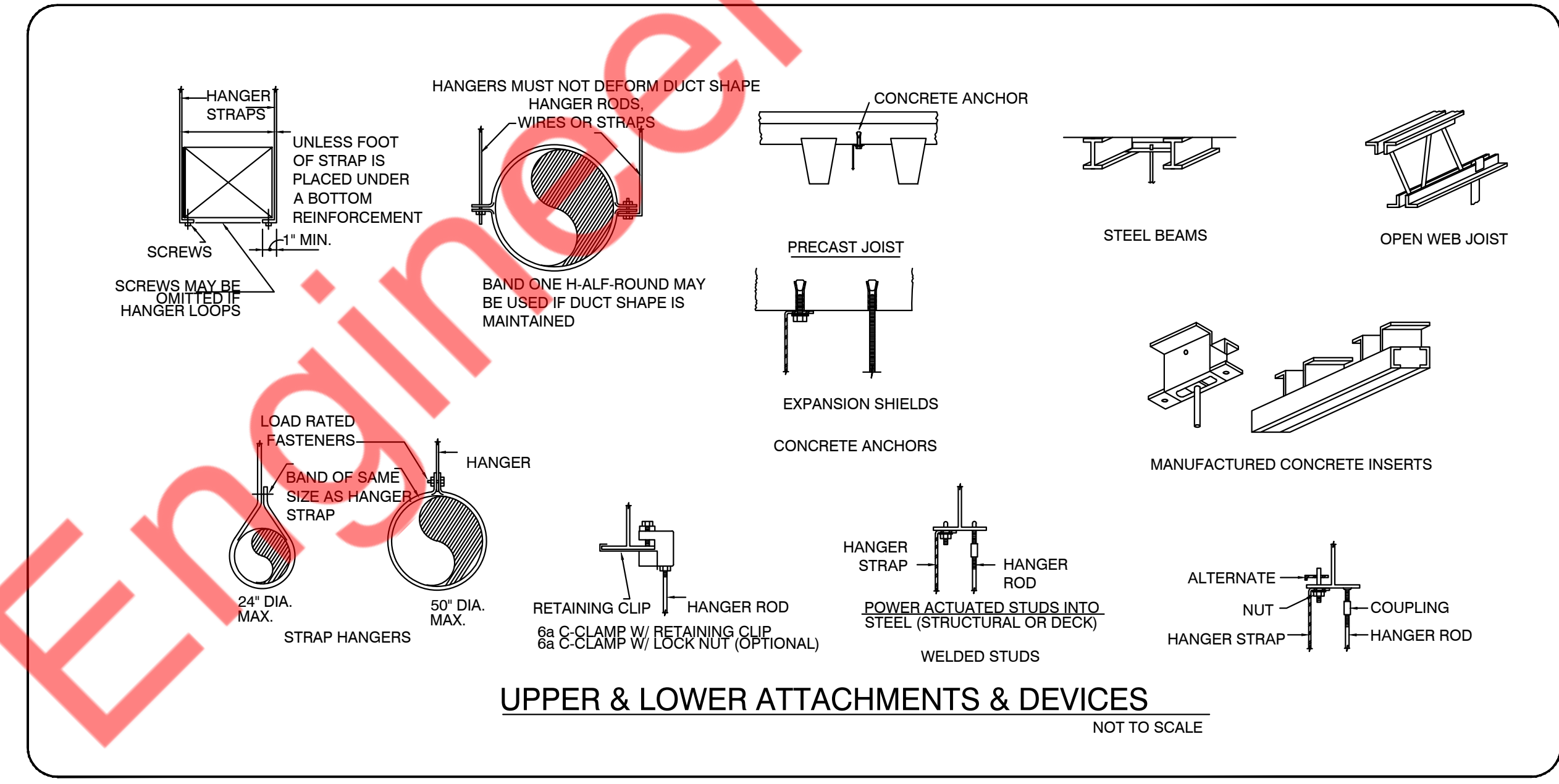
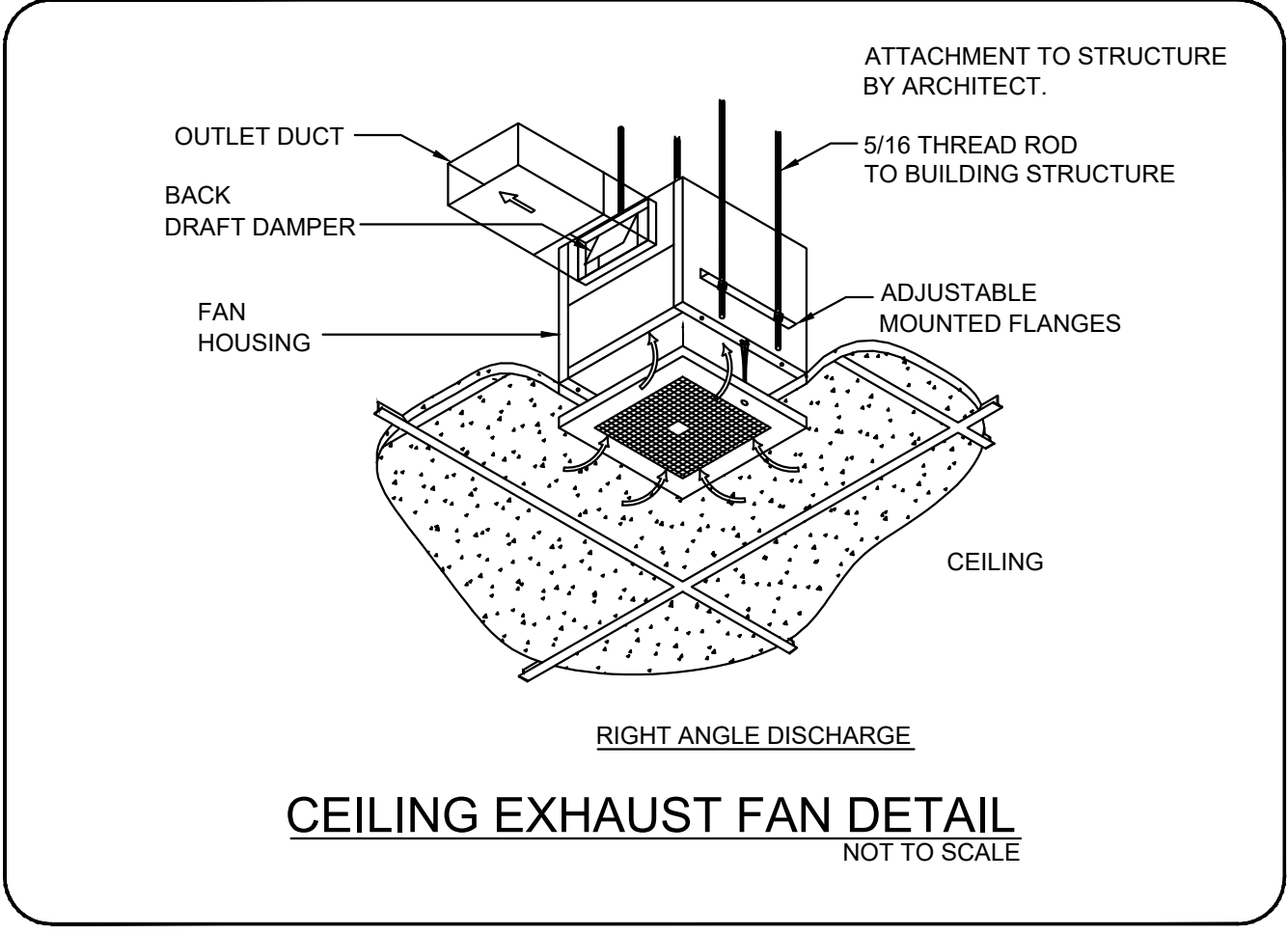
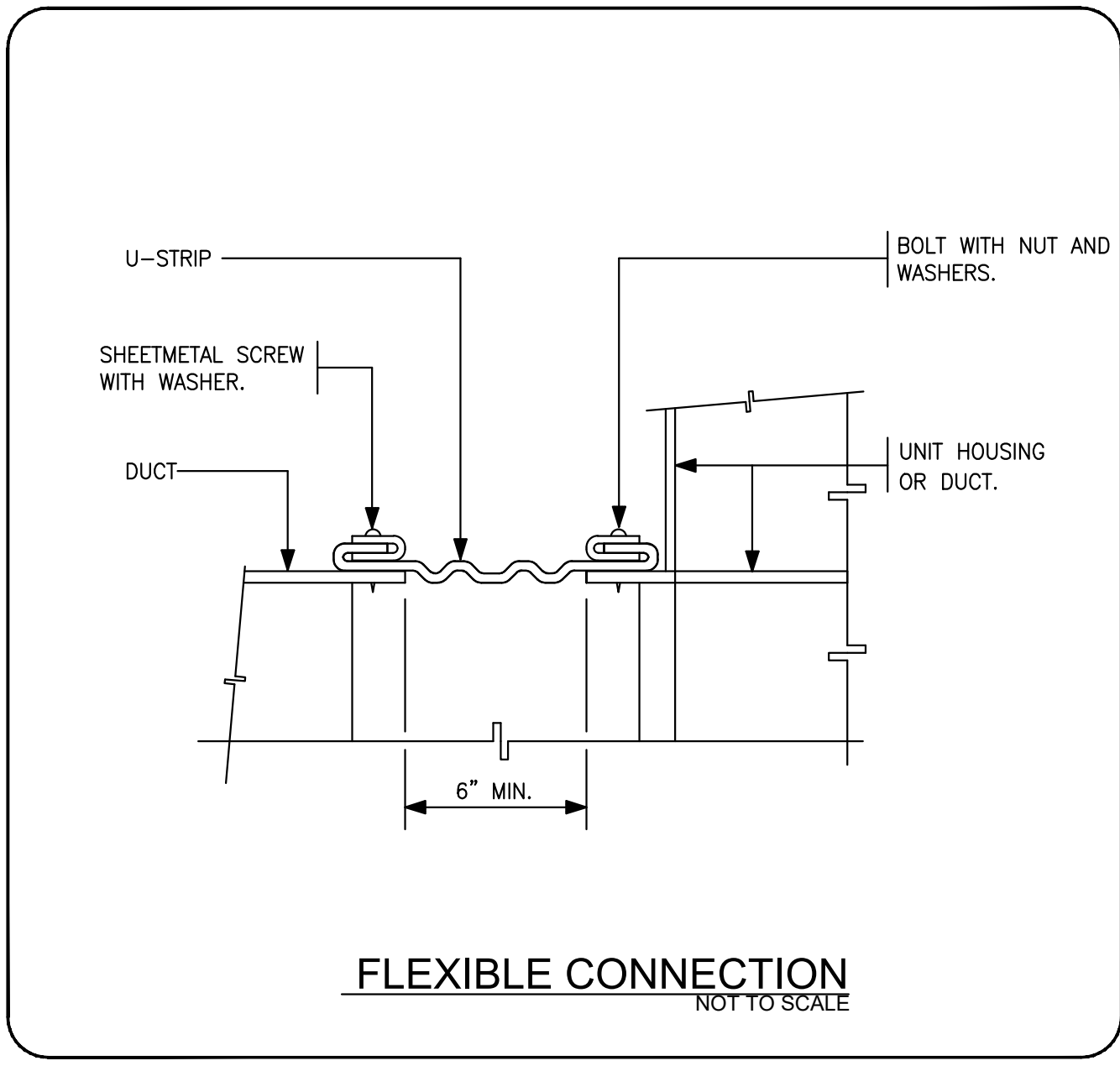
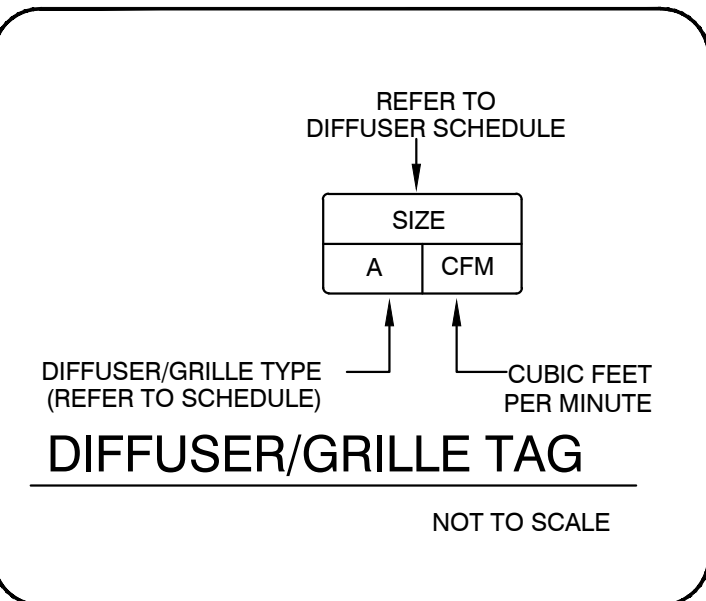
- 1 EXISTING RTU ALONG WITH ALL ITS ACCESSORIES TO REMAIN AND TO BE REUSED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION ON SITE. CLEAN AND REFURBISH TO "LIKE-NEW" CONDITION. REPAIR/REPLACE ANY ACCESSORIES AS REQUIRED TO PROVIDE A FULLY FUNCTIONING.
- 2 CONTRACTOR TO SET OUTSIDE AIR AS INDICATED ON RTU SCHEDULE. CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENTAGE OF OUTSIDE AIR. CONTRACTOR TO PROVIDE OUTSIDE AIR INTAKE ON RTU IF NOT FOUND. VERIFY IN FIELD PRIOR TO BID.
- 3 CONTRACTOR TO FIELD VERIFY THAT THE LOCATION OF ANY EXHAUST SOURCE SHOULD BE AT LEAST 10'-0" AWAY FROM THE OUTSIDE AIR OPENING OF RTU.
- 4 NEW ROOFTOP UNIT IS PROVIDED. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCT CONNECTIONS.
- 5 CONDENSATE DRAIN FROM RTU-2(N) SHALL BE CONVEYED TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A MINIMUM HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN THE 1/8TH UNIT VERTICAL IN 12 UNITS HORIZONTAL (1% SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE.
- 6 PROVIDE WEATHER-PROOF INSULATION & COATING FOR EXTERIOR DUCTWORK RUNNING ON THE ROOF.
- 7 COORDINATE FINAL LOCATION OF EQUIPMENT WITH STRUCTURAL DRAWINGS/ENGINEER OR LANDLORD/CLIENT.
- 8 EXISTING CONDENSATE DRAIN FROM EXISTING RTU-1(E) TO REMAIN AS IS. CONTRACTOR TO FLUSH THE EXISTING DRAIN LINES. REPLACE AS/IF REQUIRED.

GENERAL NOTES

- A. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND STRUCTURAL ENGINEERS.
- B. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
- C. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
- D. ALL SOURCE OF MECHANICAL INTAKE SHALL MAINTAIN 10 LINEAR FEET SEPARATION BETWEEN ANY SOURCE OF EXHAUST. CONTRACTOR IS RESPONSIBLE TO ADJUST DUCT LENGTH AS NEEDED.
- E. PATCH THE EXTRA PENETRATIONS AS & IF REQUIRED OR CUT AN EXTRA PORTION OF THE ROOF IF EXISTING PENETRATION IS NOT FEASIBLE/WORKABLE. COORDINATE WITH ROOFING AND MECHANICAL CONTRACTOR.
- F. EXHAUST SHALL TERMINATE 3 FEET FROM THE PROPERTY LINE, 3 FEET FROM THE EXTERIOR WALL AND ROOFS, 3 FEET FROM THE OPERABLE OPENING INTO THE BUILDING AND 10 FEET FROM THE OUTSIDE AIR INTAKE OPENINGS.
- G. MATERIAL FROM EXISTING SYSTEM WHICH IS RENDERED USELESS SHALL BE REMOVED AND DISPOSED OF OFF SITE.
- H. RTU WEIGHTS ARE INCLUDED ROOF CURBS AND/OR ADAPTORS.
- I. INSTALL NEW RTU ON EXISTING ROOF CURB WHEREVER POSSIBLE. USE CURB ADAPTOR AS REQUIRED. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF EXISTING UNIT.
- J. IF EXISTING ROOF CURB IS DAMAGED OR NOT REUSABLE, REPLACE WITH NEW ROOF CURB REQUIRED & REDO ROOFING. COORDINATE WITH ROOFING CONTRACTOR.



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



REVISIONS DATES:
 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

HVAC DETAILS

SCOPE OF WORK

1. REUSE THE EXISTING, 200A, 208Y/120V, 3-PHASE, 4-WIRE EXISTING METER FOR THE PROJECT SPACE.
2. RELOCATE AND REUSE THE EXISTING PANEL ON SITE OF 200A (MCB), 208Y/120V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE.
3. ALL NECESSARY EQUIPMENT, WIRING AND LIGHTING FOR THE PROPOSED SPACE INCLUDING WIRING FOR VENTILATION EQUIPMENT. COORDINATE WITH GC 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 NATIONAL ELECTRIC CODE WITH FLORIDA AMENDMENTS. 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 IEC.
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 BUSES 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 CONTRACTOR 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 BUILDING 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%.

GENERAL LIGHTING NOTES

- A. WHERE LIGHT FIXTURE IS FOLLOWED BY "NL", THIS FIXTURE IS DESIGNATED AS A NIGHT LIGHT AND SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.
- B. UPPER CASE LETTER NEXT TO LIGHT FIXTURE DENOTES FIXTURE TYPE AND LOWER CASE LETTER DENOTES SWITCHING SCHEME.
- C. ALL EMERGENCY FIXTURES SHALL BE CONNECTED TO AN UNSWITCHED HOT CONDUCTOR.

ELECTRICAL LEGEND

| SYMBOL | DESCRIPTION |
|--------|--|
| | EXHAUST FAN |
| | JUNCTION BOX |
| | BATTERY BACK UP EXIT LIGHT |
| | BATTERY BACK UP EMERGENCY LIGHT |
| | WALL SWITCH (SINGLE, DOUBLE) |
| | WALL SWITCH (TIMER) |
| | OCCUPANCY SENSOR WALL SWITCH |
| | DUPLEX RECEPTACLE |
| | 230 VOLT RECEPTACLE |
| | QUAD DUPLEX RECEPTACLE |
| | FLOOR MOUNTED, FLUSH DUPLEX RECEPTACLE |
| | FLOOR MOUNTED, FLUSH QUAD RECEPTACLE |
| | FLOOR MOUNTED, FLUSH 230 VOLT RECEPTACLE |
| | CEILING MOUNTED DUPLEX RECEPTACLE |
| | ELECTRICAL PANEL |
| | TELEVISION OUTLET |
| | TELEPHONE OUTLET |
| | TELEPHONE/DATA OUTLET |
| | DATA OUTLET |
| | FLOOR MTD. FLUSH TELEPHONE/DATA OUTLET |
| | QUAD. DATA OUTLET R45 |
| | 30A NON FUSED DISCONNECT SWITCH |
| | 60A NON FUSED DISCONNECT SWITCH |
| | NON FUSED DISCONNECT SWITCH |
| | TIME CLOCK |
| | TAMPER RESISTANCE RECEPTACLE |
| | CURRENT LIMITER |

ABBREVIATIONS:

| | | |
|--------------------------------|---------------------------------------|--------------------|
| ABOVE FINISH FLOOR= A.F.F. | HOOD EXHAUST FAN = HEF | ISOLATED GROUND=IG |
| AIR HANDLING UNIT= AHU | WATER HEATER= WH | UNDER CABINET= UC |
| BELOW COUNTER= BC | RECIRCULATION PUMP=RCP | VAPOR PROOF= VP |
| COUNTER TOP LEVEL= C | PUSH BUTTON= PB | |
| GROUND FAULT INTERRUPTER= GFCI | AUTHORITY HAVING JURISDICTION= A.H.J. | |
| VERIFY PRIOR TO INSTALL= VH | ROOF TOP UNIT= RTU | |
| WEATHER PROOF= WP | KITCHEN SUPPLY FAN=KSF | |
| EXHAUST FAN=EF | KITCHEN EXHAUST FAN= KEF | |
| ELECTRICAL CONTRACTOR = E.C. | | |

EXISTING CONDITIONS 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 VOLT/PHASE, LOCATION/QUANTITY 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.

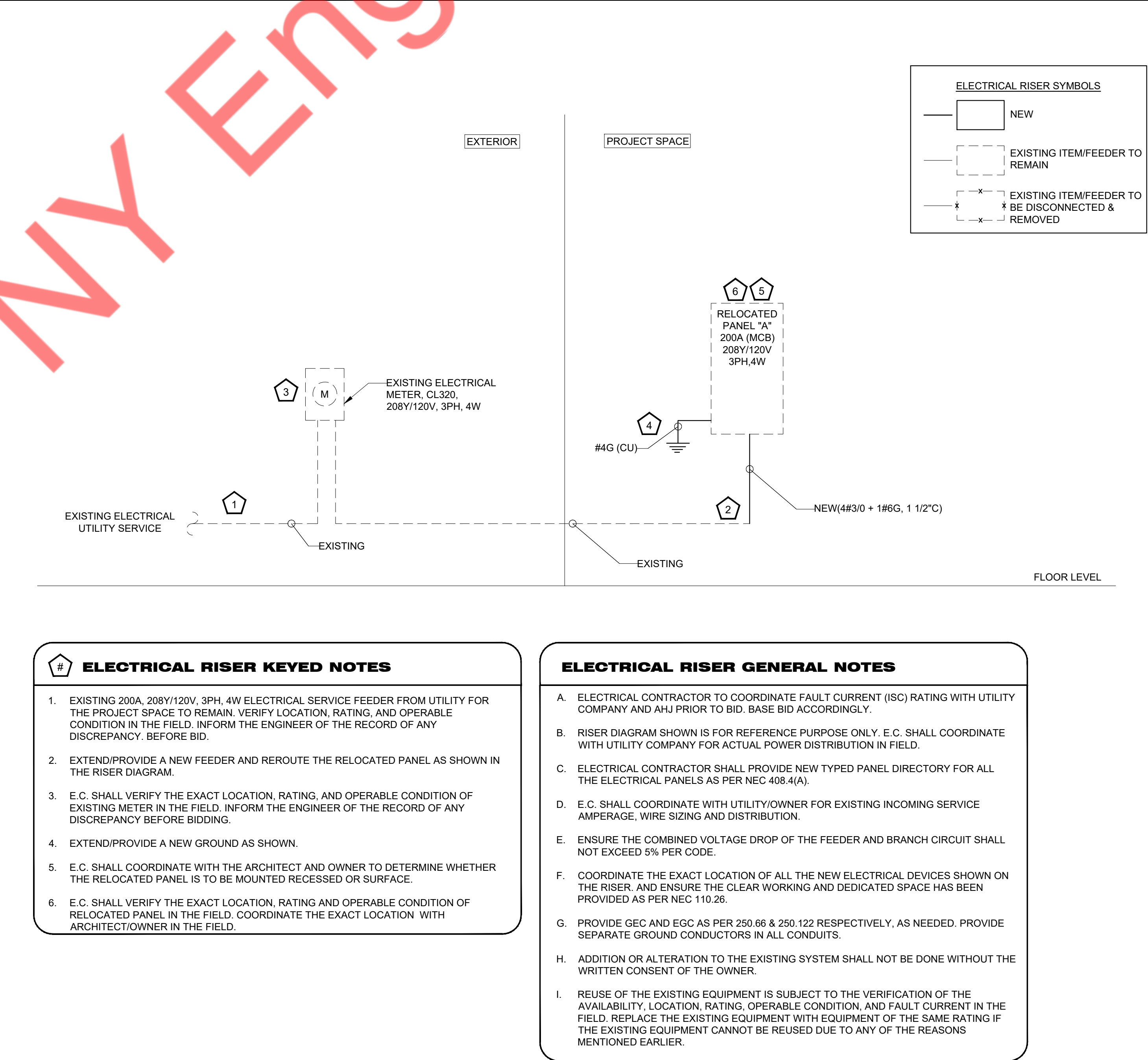
CODE INFORMATION

- 8TH EDITION (2023) - FLORIDA BUILDING CODE
- 8TH EDITION (2023) - FLORIDA FIRE PREVENTION CODE
- 8TH EDITION (2023) - FBC ENERGY CONSERVATION
- 8TH EDITION (2023) - FBC FUEL GAS
- 8TH EDITION (2023) - FBC PLUMBING
- 8TH EDITION (2023) - FBC MECHANICAL
- 8TH EDITION (2023) - FLORIDA ACCESSIBILITY CODE
- 2020 NATIONAL ELECTRIC CODE
- NFPA 101 LIFE SAFETY CODE 2021

LIGHTING FIXTURE SCHEDULE

| SYMBOL | TYPE | QTY. | DESCRIPTION | MANUFACTURER | CATALOG NUMBER | VOLT | LAMP WATTAGE | MOUNTING |
|--------|------|------|---------------------------------------|----------------------------|-----------------|------|--------------|-----------|
| | L1 | 1 | 2x4 RECESSED LAY-IN FLUORESCENT | WESPEC | WSLB-E24/334W | 120 | 45 WATTS | RECESSED |
| | L2 | 13 | PENDANT LIGHTS | WESPEC | WSL3-61TWTW-MPW | 120 | 24 WATTS | RECESSED |
| | L3 | 7 | 1 LIGHT BLACK WAREHOUSE PENDANT | HAMPTON BAY | AF-1032R/BK | 120 | 14.5 WATTS | SUSPENDED |
| | L4 | 2 | 4 FT 3 SPOT TRACK LIGHTING | HAMPTON BAY | 813840 | 120 | 50 WATTS | SUSPENDED |
| | Y1 | 3 | COMPACT DUAL HEAD LED EMERGENCY LIGHT | WESPEC | WS-EM-612LEDW | 120 | 2 WATTS | WALL |
| | X1 | 2 | EXIT/EMERGENCY COMBO SIGNS | WESPEC | WS-EX-730-LED/R | 120 | 2 WATTS | WALL |
| | T | - | TIMER WALL SWITCH | ECHOFLEX LIGHTING CONTROLS | VARIABLE | 120 | - | WALL |
| | OS | - | OCCUPANCY WALL SWITCH | ECHOFLEX LIGHTING CONTROLS | VARIABLE | 120 | - | WALL |
| | OS | - | CEILING OCCUPANCY SENSOR | ECHOFLEX LIGHTING CONTROLS | VARIABLE | 120 | - | CEILING |
| | DS | - | CEILING DAYLIGHT SENSOR | ECHOFLEX LIGHTING CONTROLS | VARIABLE | 120 | - | CEILING |
| | (E) | 16 | EXISTING EXTERIOR LIGHT FIXTURE | - | - | - | - | - |
| | (E) | 1 | EXISTING EXIT SIGN | - | - | - | - | - |
| | (E) | 1 | EXISTING LIGHT FIXTURE | - | - | - | - | - |

- NOTE:
1. E.C. SHALL COORDINATE WITH ARCHITECT FOR FINAL FIXTURE COUNT AND TYPE.
 2. COORDINATE EXACT CONTROL REQUIREMENTS WITH OWNER.
 3. E.C. SHALL PROVIDE REQUIRED POWER PACKS AND RELAYS SUITABLE FOR THE ABOVE LIGHT FIXTURES IN COORDINATION WITH THE LIGHTING VENDOR. BASE BID ACCORDINGLY.
 4. E.C. SHALL COORDINATE WITH OWNER/ARCHITECT FOR EXACT MAKE/MODEL OF ALL THE FIXTURES AND SWITCHES AND ITS COMPATIBILITY. BASE BID ACCORDINGLY.



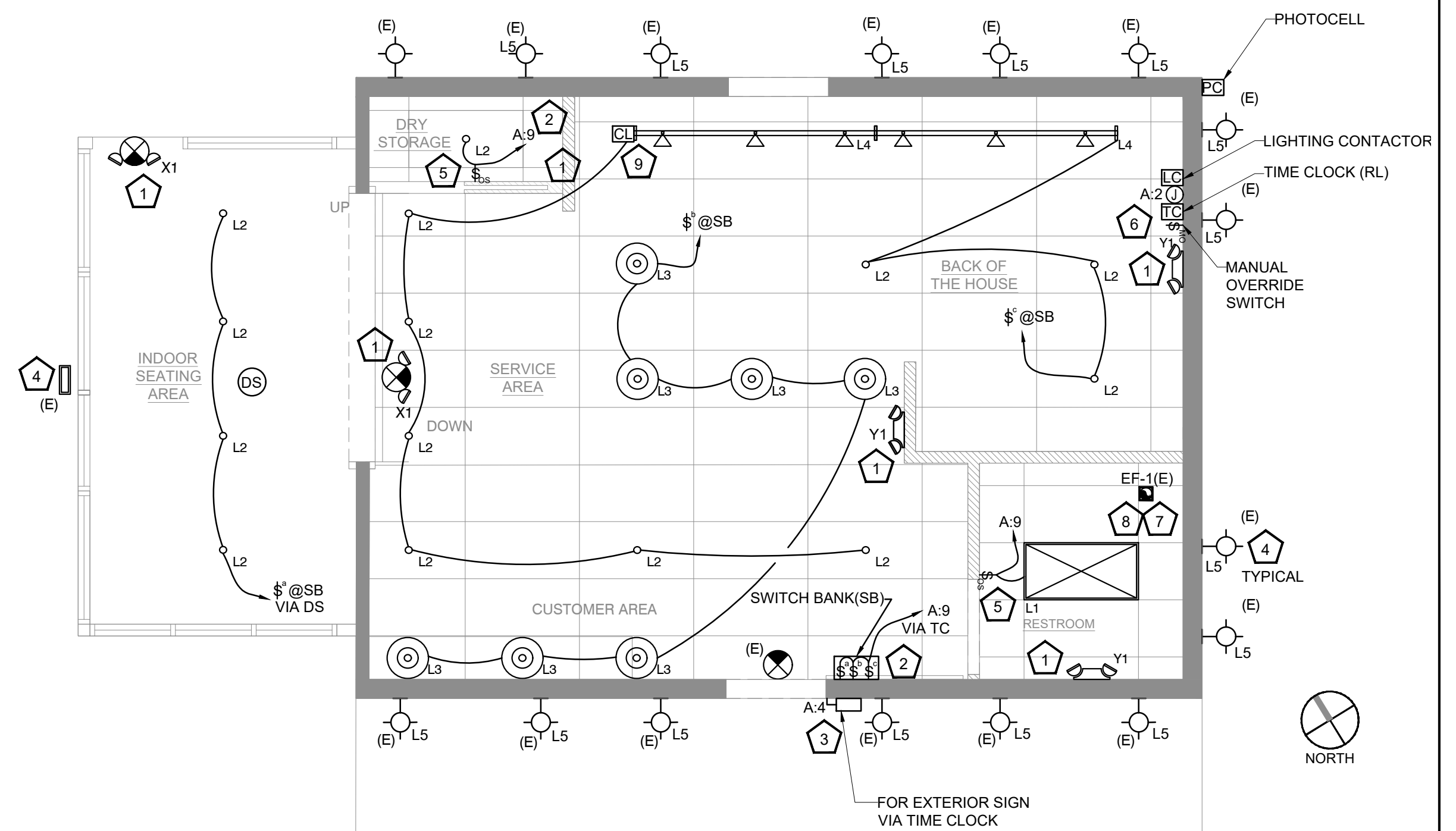
LIGHTING PLAN KEYED NOTES

- CONNECT ALL EMERGENCY EXIT, EMERGENCY EGRESS AND NIGHT LIGHT LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES.
- COORDINATE EXACT LOCATION OF SWITCH BANK WITH OWNER/ ARCHITECT.
- E.C SHALL VERIFY THE AVAILABILITY AND OPERABLE CONDITION OF EXISTING BUILDING SIGNAGE. REPLACE IF FOUND INOPERABLE. COORDINATE WITH ARCHITECT/OWNER AND SIGN VENDOR. BUILDING SIGNAGE SHALL BE CONTROLLED VIA TIME CLOCK.
- ALL LIGHTING FIXTURES MARKED AS (E) ARE EXISTING AND SHALL REMAIN CONNECTED TO THEIR EXISTING CIRCUITS AND CONTROLS. E.C SHALL VERIFY THE OPERATING CONDITION OF ALL EXISTING FIXTURES & CONTROLS REPLACE THEM IF FOUND INOPERABLE.
- WALL MOUNTED OCCUPANCY SENSOR. SET OFF TIME TO 20 MINUTES. SET DIP SWITCH TO AUTOMATIC ON.
- E.C. SHALL VERIFY AVAILABILITY OF EXISTING TIME CLOCK. VERIFY OPERABLE CONDITION OF IT. IF FOUND INOPERABLE. PROVIDE NEW JUNCTION BOX & TIME CLOCK IN COORDINATION WITH ARCHITECT/OWNER IN FIELD. RELOCATE AS SHOWN ON THE PLAN.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
- EF-1(E) SHALL BE INTERLOCKED WITH ROOM LIGHT.
- PROVIDE A 3 AMP CURRENT LIMITER FOR THE TRACK LIGHTS.

LIGHTING PLAN GENERAL NOTES

- CONTRACTOR IS ADVISED TO UPDATE THE EMERGENCY LIGHT FIXTURES LOCATIONS/QUANTITY PER SITE REQUIREMENT UP ON FINAL INSPECTION OR PER LOCAL AHJ REQUIREMENT.
- LIGHT FIXTURES WITH TAG: (E) IN THE PLAN INDICATES EXISTING TO REMAIN.
- THE PROPOSED LOCATION OF THE SWITCHES AND SENSORS IS SHOWN ON THE PLAN. FOR CONTROLS WITH DIFFERENT CAPABILITIES, THE CONTRACTOR SHALL ADJUST THE QUANTITY, LOCATION, AND MOUNTING HEIGHT ACCORDINGLY.
- THE OCCUPANCY SENSOR, TIMERS, AND OTHER APPROVED LIGHTING CONTROLS SHALL MATCH THE CONTROL FUNCTION REQUIREMENT SPECIFIED IN THE IECC C405.2.
- THE TIME CLOCK (MIN. 2 CHANNEL) SHALL BE SCHEDULED AS PER THE REQUIREMENT OF THE PROJECT SPACE. COORDINATE EXACT LOCATION IN THE FIELD.
- THE MANUAL OVERRIDE SWITCH SHALL TURN OFF THE INTENDED LIGHTING (TIME CLOCK AND CONTACTORS) BEFORE 2 HOURS. WHEN IT IS INITIATED.
- A PHOTOCELL SHALL BE LOCATED INSTALLED IN ANY LOCATION EXPOSED TO THE SUNLIGHT BUT CONCEALED FROM PUBLIC VIEW. COORDINATE EXACT LOCATION IN FIELD.
- REFER TO THE LIGHTING CONTACTOR DETAIL FOR TYPICAL CONNECTION OF THE TIME CLOCK, MANUAL OVERRIDE SWITCH, CONTACTORS AND PHOTOCELL.
- E.C. SHALL REARRANGE (IF REQUIRED) THE EMERGENCY FIXTURES TO PROVIDE INITIAL ILLUMINATION THAT IS NOT LESS THAN AN AVERAGE OF 1 FOOTCANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40 TO 1 SHALL NOT BE EXCEEDED.

Property of NY Engineers



LIGHTING PLAN

SCALE
1/4" = 1'-0"

1

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

| REVISIONS DATES: | | |
|------------------|----------|-------------|
| Δ | 08/25/25 | BD COMMENTS |
| | | |
| | | |
| | | |

ISSUE DATE: 07.02.25
PROJECT #: 447A.1433A.1
DRAWN BY: NYE
CHECKED BY: NYE

LIGHTING PLAN

E-2

POWER PLAN KEYED NOTES

1. QUAD RECEPTACLE OUTLET FOR POS. E.C. TO CO-ORDINATE WITH ARCHITECT/OWNER FOR EXACT POWER REQUIREMENT, LOCATION, MOUNTING HEIGHT OF OUTLET/DATA AND OTHER DETAILS BEFORE BID. BASE BID ACCORDINGLY.
2. E.C. SHALL VERIFY THE INSTALLATION OF ELECTRICAL EQUIPMENTS ARE IN COMPLIANCE WITH N.E.C. 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.
3. PROVIDE (1) CAT 6 HOME RUN TO EACH POS AND ONE (1) DUPLEX 20 AMPS RECEPTACLE FOR POS. COORDINATE WITH OWNER PRIOR TO ROUGH-IN FOR EXACT HEIGHT.
4. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR FOR THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
5. E.C. SHALL COORDINATE WITH THE ARCHITECT/OWNER/MANUFACTURER FOR THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.
6. E.C. SHALL COORDINATE WITH EQUIPMENT VENDOR/ ARCHITECT FOR EXACT POWER REQUIREMENT AND CONNECTION TYPE IN THE FIELD PROVIDE AS REQUIRED. BASE BID ACCORDINGLY.
7. EF-2(N) SHALL BE INTERLOCKED WITH RTU-1(E).
8. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROL AS REQUIRED.

POWER PLAN GENERAL NOTES

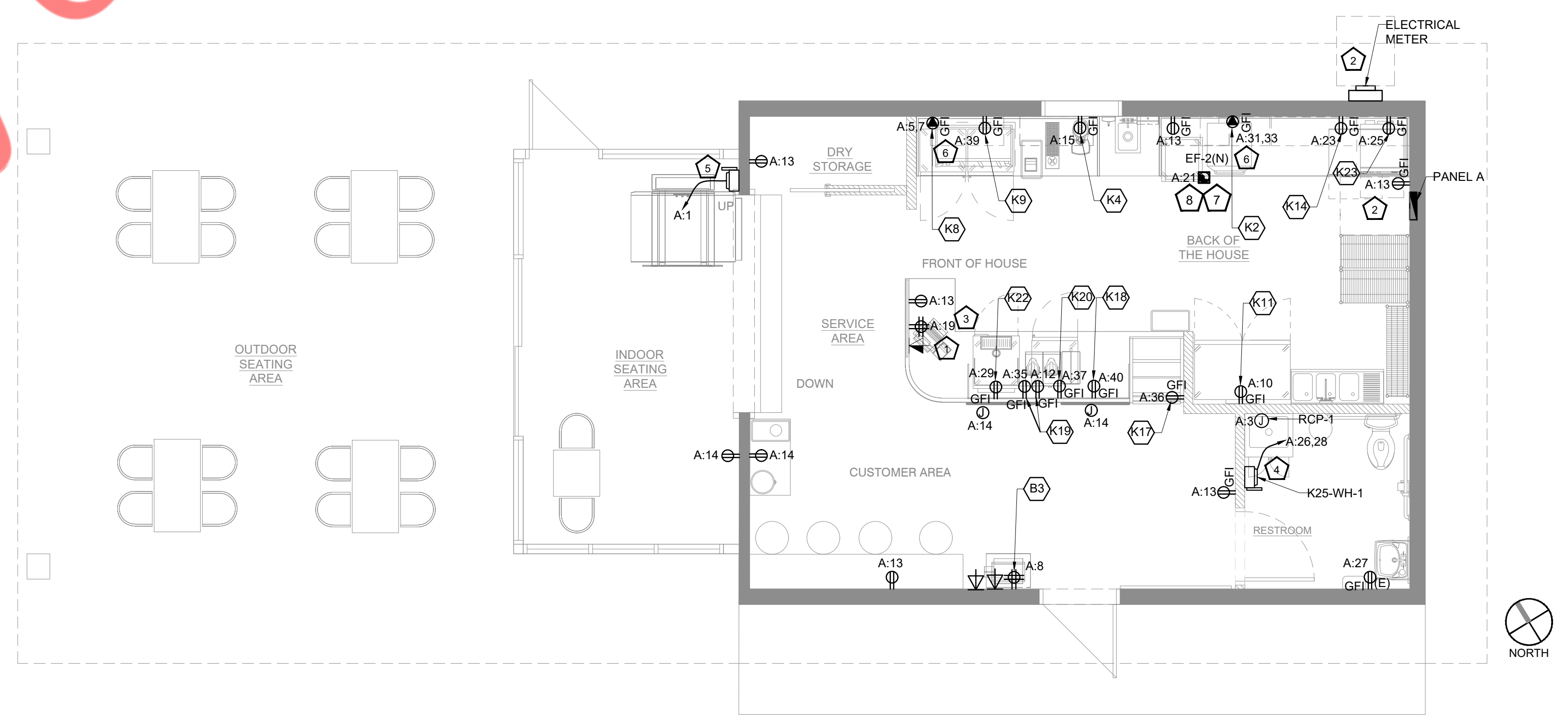
- A. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL HAVE GFCI PROTECTION. ALL THE KITCHEN EQUIPMENT SHALL HAVE GFI BREAKER IN PANELS.
- B. 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.
- C. WHEREVER THE EXISTING ELECTRICAL SWITCHES, RECEPTACLES, CONDUITS, WIRING, AND OTHER MATERIALS THAT MEET THE CODE AND PROJECT REQUIREMENT SHALL BE RELOCATED / REUSE IN COORDINATION WITH ARCHITECT/OWNER.
- D. COORDINATE THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENTS OF THE DUCT SMOKE DETECTOR, MOTORIZED DAMPERS, AND THERMOSTATS IN THE FIELD WITH THE MECHANICAL DRAWING. PROVIDE WIRING AS REQUIRED.
- E. FOR SPEAKERS & CAMERA POWER REQUIREMENT E.C. SHALL COORDINATE WITH GENERAL CONTRACTOR/ARCHITECT IN THE FIELD PROVIDE AS REQUIRED. BASE BID ACCORDINGLY.
- F. E.C. SHALL COORDINATE WITH THE ARCHITECT/OWNER/ SIGNAGE VENDOR FOR EXACT POWER REQUIREMENT OF WALL SIGNS IN THE FIELD. PROVIDE CIRCUIT AND CONTROL ACCORDINGLY.

KITCHEN EQUIPMENT SCHEDULE

| ELECTRICAL EQUIPMENT SCHEDULE | | | | | | | | | | | |
|-------------------------------|----------|---------------------------------|--------------------------|---------------|------------|---------|-------|----------|---------|-------------|-------|
| TAG | QUANTITY | EQUIPMENT DESCRIPTION | MAKE | MODEL | LOAD IN VA | VOLTS | PHASE | AMPS | BREAKER | CONNECTION | NOTES |
| K2 | 1 | RAPID COOK OVEN (2 STACK) | MERRYCHEF USA | E2S | 6000 | 208/240 | 1 | 30 | 30 | NEMA L6-15P | 2 |
| K4 | 1 | COFFEE GRINDER | F&O IMPORTS | KONY S-A | 450 | 120 | 1 | 3.75 | 20 | - | 1,2,3 |
| K8 | 1 | ESPRESSO CAPPUCHINO MACHINE | RABCILIO GROUP NOTH AMER | RS1 3-GROUP | 6750 | 220-240 | 1 | 32 | 50 | NEMA 6-30P | - |
| K9 | 1 | UNDERCOUNTER REFRIGERATOR | TURBO AIR | JUR-60-G-N | 265 | 115 | 1 | 2.3 | 20 | NEMA 5-15P | - |
| K11 | 1 | REACH-IN DUAL TEMP CABINET | TURBO AIR | M3RF45-2-N | 690 | 115 | 1 | 6 | 20 | NEMA 5-15P | - |
| K14 | 1 | ICE MAKER WITH BIN, CUBE- STILE | HOSHIZAKI | IM-200BAC | 862.5 | 115 | 1 | 7.5 | 20 | NEMA 5-15P | - |
| K17 | 1 | OPEN DISPLAY MERCHANDISER | TURBO AIR | TOM-W405B-N | 839.5 | 115 | 1 | 7.3 | 20 | NEMA 5-15P | - |
| K18 | 1 | COFFEE GRINDER | BUNN | B35600.002 | 1320 | 120 | 1 | 11 | 20 | NEMA 5-15P | - |
| K19 | 2 | COFFEE BREWER | BUNN | B38700.001 | 1800 | 120 | 1 | 15 | 20 | - | 1,2 |
| K20 | 1 | UNDERCOUNTER REFRIGERATOR | PERLICK CORPORATION | HC24RS-5G-STK | 218.5 | 115 | 1 | 1.9 | 20 | NEMA 5-15P | - |
| K22 | 1 | DRAFT BEER COOLER | SUMMIT | SBC540SBIADA | 138 | 115 | 1 | 1.2 | 20 | - | 1,2 |
| K23 | 1 | 29" REACH IN FREEZER | AVANTCO | A-19F-HC 29" | 437 | 115 | 1 | 3.8 | 20 | NEMA 5-15P | - |
| K25 | 1 | WATER HEATER 20 GAL | RHEEM | XE06P06PU20U0 | 2000 | 120 | 1 | EXISTING | 30 | - | - |
| B3 | 2 | KIOSK | TBD | TBD | - | - | - | - | - | - | 1,2,3 |

- NOTES:
- 1- COORDINATE EXACT CONNECTION TYPE WITH THE VENDOR PRIOR TO ROUGH IN.
 - 2- PROVIDE CIRCUIT BREAKER, WIRING, JUNCTION BOX, RECEPTACLES, DISCONNECTS AS REQUIRED.
 - 3- SELECT EQUIPMENT RATED FOR SERVICE VOLTAGE ELSE PROVIDE THE ADAPTER/TRANSFORMER AS NEEDED.

Property of NY Engineers



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

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

REVISIONS DATES:

| | | |
|----------|----|----------|
| 08/25/25 | BD | COMMENTS |
|----------|----|----------|

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

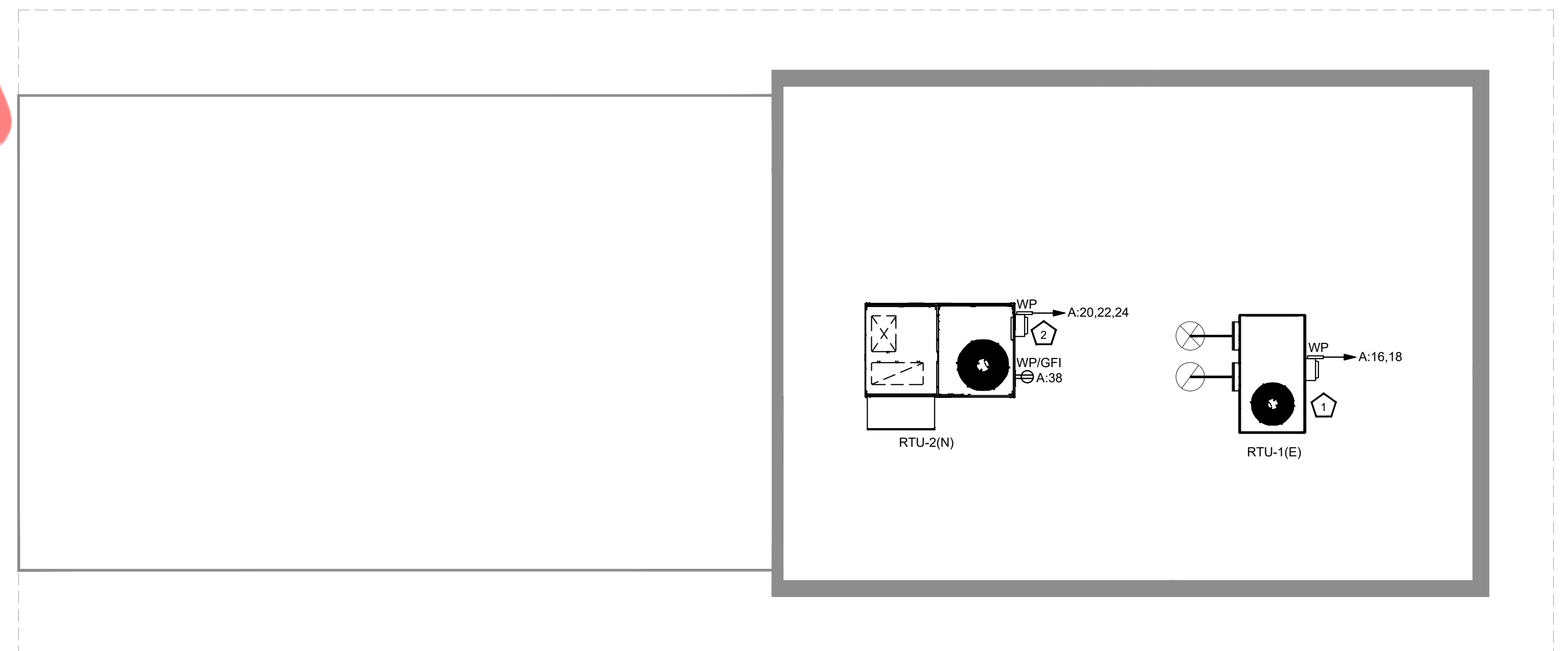
ROOF POWER PLAN GENERAL NOTES

- A. ALL THE ELECTRICAL ELEMENTS, VIZ., CONDUITS, WIRING, AND DISCONNECT SWITCHES, SHALL BE RATED FOR EXTERIOR USE.
- B. THE DISCONNECT SWITCHES FOR THE BRANCH CIRCUIT SHOWN ON THE PLAN SHALL BE RATED EQUAL TO OR HIGHER THAN THE BREAKER RATING. REFER TO BREAKER RATING IN THE PANEL SCHEDULE AND PROVIDE DISCONNECT AS NEEDED.
- C. GFI MARKED ON THE PLAN INDICATES THAT THE CIRCUIT SHALL BE GFI PROTECTED. E.C. SHALL PROVIDE A GFI BREAKER IN THE PANEL FOR THE INDICATED CIRCUIT IF EITHER THE RECEPTACLE IS NOT AVAILABLE OR NOT ACCESSIBLE.

ROOF POWER PLAN KEY NOTES

- 1. EXISTING (E) MECHANICAL UNITS SHALL REMAIN CONNECTED TO THE EXISTING CIRCUIT. E.C. TO VERIFY THE OPERABLE CONDITION OF THE ELECTRICAL CIRCUIT AND CONTROLS IN THE FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
- 2. E.C. SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR THE EXACT LOCATION AND ELECTRICAL CONNECTION REQUIREMENT OF THE HVAC UNIT IN THE FIELD. PROVIDE CIRCUIT AND CONTROLS AS REQUIRED.

Property of NY Engineers



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

REVISIONS DATES:

| | | |
|----------|----|----------|
| 08/25/25 | BD | COMMENTS |
|----------|----|----------|

ISSUE DATE: 07.02.25
PROJECT #: 447A.1433A.1
DRAWN BY: NYE
CHECKED BY: NYE

ROOF POWER PLAN

PANEL SCHEDULE

| PANEL: | | A (RELOCATED) | | (SERVICE RATED ELECTRICAL PANEL) | | | | | | | | | | MOUNTING: RECESSED | |
|----------|-----------|-------------------------------------|-----------|----------------------------------|-----------|-----------------|--------------|--------------|-----------|------------|-----------|--------------------------------|-----------|-----------------------|--|
| 208Y/120 | VOLTS | PHASE | 3 | | | | | | | | | | | DEMAND LOAD 40.49 | |
| 200A | MCB | WIRE | 4 | | | | | | | | | | | DEMAND CURRENT 112.52 | |
| | | | | | | | | | | | | PANEL LOCATION: DRY STORAGE | | | |
| | | | | | | | | | | | | FED FROM: EXISTING METER | | | |
| CKT NO. | TRIP AMPS | DESCRIPTION OF LOAD | LOAD TYPE | LOAD (KVA) | NOTES | PER PHASE (KVA) | | | NOTES | LOAD (KVA) | LOAD TYPE | DESCRIPTION OF LOAD | TRIP AMPS | CKT NO. | |
| | | | | | | A | B | C | | | | | | | |
| 1 | 20/1P | ADA LIFT | M | 1.80 | RWC, NBEP | 1.90 | | | RWC, NBEP | 0.10 | L | TIME CLOCK | 20/1P | 2 | |
| 3 | 20/1P | RCP-1 | M | 0.20 | RWC | | 1.40 | | RWC | 1.20 | L | SIGNAGE | 20/1P | 3 | |
| 5 | 50/2P | K8-ESPRESSO CAPPUCHINO MACHINE | E | 3.38 | RWC, NBEP | 3.74 | | 3.88 | RWC | 0.50 | O | MECH. MISC. LOAD | 20/1P | 6 | |
| 7 | | | E | 3.38 | | | | | RWC, NBEP | 0.36 | R | B3-KIOSK | 20/1P | 8 | |
| 9 | 20/1P | LIGHTS | L | 1.00 | RWC | | 1.69 | | RWC | 0.69 | E | K11-REACH-IN DUAL TEMP CABINET | 20/1P | 10 | |
| 11 | 30/1P | SPARE | | | | | | | RWC | 1.80 | E | K19-COFFEE BREWER | 20/1P | 12 | |
| 13 | 20/1P | GERERAL RECEPTACLES | R | 1.26 | RWC, NBEP | 2.06 | | | RWC, NBEP | 0.80 | R | GENERAL RECEPTACLES AND SIGN | 20/1P | 14 | |
| 15 | 20/1P | K4-COFFEE GRINDER | E | 0.45 | RWC, NBEP | | | 2.84 | RWC | 2.39 | H | RTU-1(E) | 35/2P | 16 | |
| 17 | 20/1P | EXTERIOR LIGHTS | L | 0.50 | RWC | | | 2.89 | RWC | 2.39 | H | | 20/1P | 18 | |
| 19 | 20/1P | POS | R | 0.36 | RWC, NBEP | 3.00 | | | RWC, NBEP | 2.64 | H | | 20 | | |
| 21 | 20/1P | EF-2(N) | M | 0.10 | RWC | | | 2.74 | RWC, NBEP | 2.64 | H | RTU-2(N) | 30/3P | 22 | |
| 23 | 20/1P | K14-ICE MAKER WITH BIN, CUBE- STILE | E | 0.86 | RWC | | | 3.50 | RWC, NBEP | 2.64 | H | | 24 | | |
| 25 | 20/1P | K23-29" REACH IN FREEZER | E | 0.44 | RWC, NBEP | 2.44 | | | RWC | 2.00 | O | K25-WATER HEATER | 30/2P | 26 | |
| 27 | 20/1P | BATHROOM GFI REC | R | 0.18 | RWC | | | 2.18 | RWC | 2.00 | O | | 20/1P | 28 | |
| 29 | 20/1P | K22-DRAFT BEER COOLER | E | 0.14 | RWC | | | 0.14 | | | | SPARE | 30/3P | 30 | |
| 31 | 30/2P | K2-RAPID COOK OVEN (2 STACK) | E | 3.00 | RWC, NBEP | 3.00 | | | | | | | 30/3P | 32 | |
| 33 | | | E | 3.00 | | | | | | | | | | | |
| 35 | 20/1P | K19-COFFEE BREWER | E | 1.80 | RWC | | | 2.64 | RWC | 0.84 | E | K17-OPEN DISPLAY MERCHANDISER | 20/1P | 36 | |
| 37 | 20/1P | K20-UNDERCOUNTER REFRIGERATOR | E | 0.22 | RWC, NBEP | 0.40 | | | RWC, NBEP | 0.18 | R | ROOF TOP SERVICE RECEPTACLE | 20/1P | 38 | |
| 39 | 20/1P | K9-UNDERCOUNTER REFRIGERATOR | E | 0.27 | RWC | | | 1.59 | RWC | 1.32 | E | K18-COFFEE GRINDER | 20/1P | 40 | |
| | | | | | | 16.53 | 15.44 | 14.84 | | | | | | | |

| BRANCH CIRCUIT WIRING CHART | |
|-----------------------------|---------------------|
| 15/1P | 2#12 + 1#12G, 3/4"C |
| 20/1P | 2#12 + 1#12G, 3/4"C |
| 25/1P | 2#10 + 1#10G, 3/4"C |
| 30/1P | 2#10 + 1#10G, 3/4"C |
| 35/1P | 2#8 + 1#10G, 3/4"C |
| 40/1P | 2#8 + 1#10G, 3/4"C |
| 45/1P | 2#8 + 1#10G, 3/4"C |
| 50/1P | 2#8 + 1#10G, 3/4"C |
| 15/2P | 2#12 + 1#12G, 3/4"C |
| 20/2P | 2#12 + 1#12G, 3/4"C |
| 25/2P | 2#10 + 1#10G, 3/4"C |
| 30/2P | 2#10 + 1#10G, 3/4"C |
| 35/2P | 2#8 + 1#10G, 3/4"C |
| 40/2P | 2#8 + 1#10G, 3/4"C |
| 45/2P | 2#8 + 1#10G, 3/4"C |
| 50/2P | 2#8 + 1#10G, 3/4"C |
| 60/2P | 2#6 + 1#10G, 3/4"C |
| 70/2P | 2#4 + 1#8G, 1"C |
| 80/2P | 2#4 + 1#8G, 1"C |
| 90/2P | 2#3 + 1#8G, 1"C |
| 100/2P | 2#3 + 1#8G, 1"C |
| 15/3P | 3#12 + 1#12G, 3/4"C |
| 20/3P | 3#12 + 1#12G, 3/4"C |
| 25/3P | 3#10 + 1#10G, 3/4"C |
| 30/3P | 3#10 + 1#10G, 3/4"C |
| 35/3P | 3#8 + 1#10G, 3/4"C |
| 40/3P | 3#8 + 1#10G, 3/4"C |
| 45/3P | 3#8 + 1#10G, 3/4"C |
| 50/3P | 3#8 + 1#10G, 3/4"C |

| PANEL SCHEDULE ABBREVIATIONS AND NOTES | |
|--|---|
| L | LIGHTING |
| R | RECEPTACLE |
| H | HVAC |
| E | KITCHEN EQUIPMENT |
| M | LARGEST MOTOR |
| O | OTHER |
| N | NON COINCIDENT |
| X | LINKED CELL |
| RWC | REFER TO THE WIRING CHART FOR WIRE SIZE |
| GFI | GROUND FAULT CIRCUIT INTERRUPTER |
| AFI | ARC FAULT CIRCUIT INTERRUPTER |
| NBEP | NEW BREAKER IN THE EXISTING PANEL |
| HACR | HEAT AIR CONDITIONING AND REFRIGERATION |
| PAN | PROVIDE ADDITIONAL WIRE FOR NEUTRAL |
| LO | LOCKOUT BREAKER |
| STB | SHUNT TRIP BREAKER |
| ETR | EXISTING TO REMAIN |
| SAE | SAME AS EXISTING |
| VIF | VERIFY IN FIELD |
| WP | WEATHER PROOF |

| ELECTRICAL SERVICE LOAD CALCULATION | | | | | |
|--|----------|----------------------|-----------|------|--------------|
| LOAD DESCRIPTION | LOAD TAG | CONNECTED LOAD (kVA) | TOTAL kVA | D.F. | DEMAND (kVA) |
| PANEL A | | | | | |
| TOTAL LIGHTING | L | 2.80 | 2.80 | 125% | 3.50 |
| TOTAL RECEPTACLE | R | 3.14 | 3.14 | # | 3.14 |
| TOTAL EQUIPMENT | E | 21.57 | 21.57 | 65% | 14.02 |
| TOTAL OTHER | O | 4.50 | 4.50 | 100% | 4.50 |
| TOTAL HVAC | H | 12.70 | 12.70 | 100% | 12.70 |
| NON COINCIDENT | N | 0.00 | 0.00 | 0% | 0.00 |
| TOTAL MOTOR | M | 2.10 | 0.00 | 100% | 0.00 |
| LARGEST MOTOR | | | | 25% | 0.00 |
| # = Demand factor 100% for first 10kVA and 50% for rest of the receptacle load | | | | | 37.86 |
| SERVICE VOLTAGE | 208Y/120 | | | | |
| DEMAND (kVA) | 37.86 | | | | |
| DEMAND (AMPS) | 105.22 | | | | |
| SERVICE SIZE | 200.00 | | | | |
| SPARE | 47% | | | | |
| SWITCH SIZE | 200.00 | | | | |

PANEL SCHEDULE GENERAL NOTES

- A. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR THE EXACT POWER PROVISION AND REQUIREMENTS PRIOR TO COMMENCING ANY WORK. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.
- B. ALL CIRCUITING SHOWN IN ARE FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY CIRCUITING & BREAKER SIZE OF THE EXISTING DEVICES IN FIELD AND INFORM ENGINEER FOR DISCREPANCIES.
- C. ELECTRICAL CONTRACTOR TO VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE.
- D. ELECTRICAL CONTRACTOR SHALL VERIFY THE EXISTING EQUIPMENT LOAD & RATINGS IN FIELD AND ACCORDINGLY CONSIDER THE ELECTRICAL LOAD AND PROVIDE THE BREAKER IN PANEL BOARD SCHEDULE.
- E. ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPED PANEL DIRECTORY FOR ALL THE ELECTRICAL PANELS AS PER NEC 408.4(A).
- F. REPAIR OR REPLACE ANY MISSING OR DAMAGED COMPONENTS ON THE EXISTING PANEL TO MAKE THE PANEL FULLY FUNCTIONAL.
- G. THE CONTRACTOR SHALL MODIFY THE BREAKERS OF THE EXISTING PANEL (WHEREVER REQUIRED) TO BE IN LINE WITH THE PANEL SCHEDULE PROVIDED IN THE ELECTRICAL DRAWING.
- H. THE ELECTRICAL LOAD SHALL BE BALANCED WITHIN 10% FOR ALL 3 PHASES.
- I. THE VOLTAGE DROP FOR THE BRANCH CIRCUIT SHALL NOT EXCEED 3% AND 5% IN COMBINATION WITH THE FEEDER CIRCUIT PER 210.19A NOTE 3.
- J. THE BREAKER FEEDING HVAC UNITS SHALL BE HACR TYPE.

NY ENGINEERS

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

REVISIONS DATES:
 ▲ 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A1
 DRAWN BY: NYE
 CHECKED BY: NYE

PANEL SCHEDULES

E-5

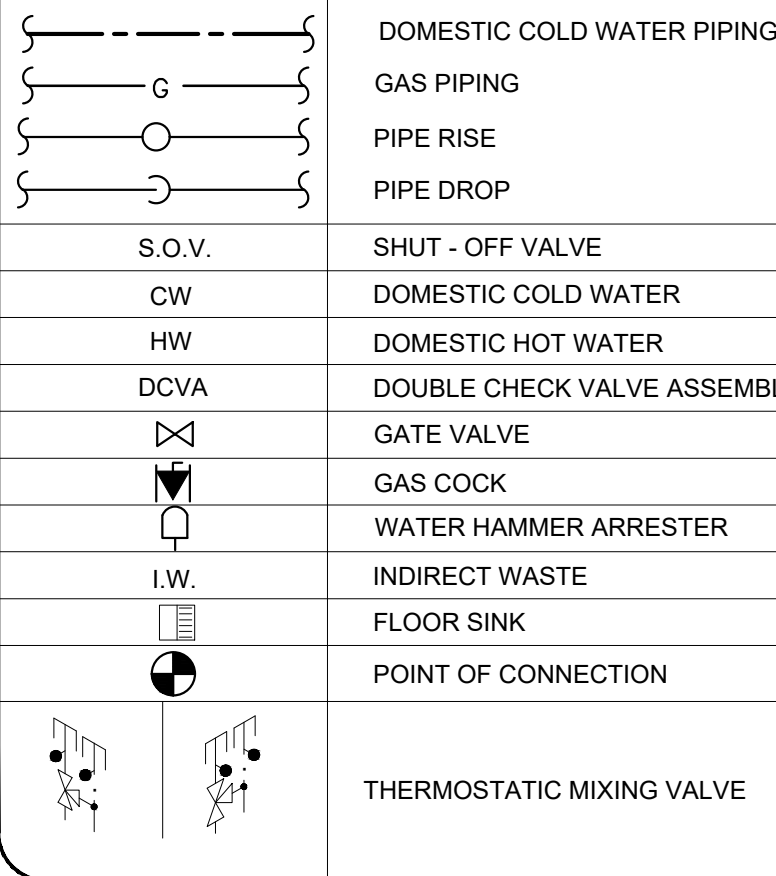
SCOPE OF WORK

PROVIDE ALL PLUMBING FOR NEW JUICI PATTIES INCLUDING WATER, SANITARY LINES, VENTS, GAS AND CONNECT TO EXISTING UTILITIES. A NEW WATER HEATER, COORDINATE WITH GC AND MECH CONTRACTOR FOR ANY REQUIRED CONDENSATE LINES, IF REQUIRED.

PLUMBING NOTES

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
- 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 PROCEEDING 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.
- DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
- 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.
- 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 ANSIS/NSF STANDARD 81.
- SOIL, WASTE AND VENT PIPING SHALL BE PVC BUT MAY NOT RUN THRU RATED ASSEMBLIES OR IN PLENUMS.
- ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
- FURNISH AND INSTALL APPROVED AIR CHAMBERS AT EACH PLUMBING FIXTURE GROUP AS PER CODE AND WITH GOOD ENGINEERING PRACTICE.
- DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METAL IN PIPING AND EQUIPMENT CONNECTIONS; EXCEPT AT WATER HEATER AS PER CODE.
- ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PAD.
- 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.
- 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 COPY TO LL.
- STUDOR MINIMAXI AIR ADMITTANCE VALVES MAY NOT BE USED AS AN ALTERNATE TO VENT PIPING THRU ROOF.
- PROVIDE CHROME PLATED COMBINATION COVER PLATE AND CLEAN OUT PLUG OR ACCESS PANEL FOR ALL CLEANOUTS.
- NO COMBUSTIBLE MATERIAL TO BE USED IN MECHANICAL ROOMS OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.
- NO WATER, SANITARY OR DRAINAGE PIPING PERMITTED IN ELECTRICAL OR ELEVATOR EQUIPMENT ROOMS.
- 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.
- 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 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 FOR SIZE AND LOCATION OF PIPING. PVC WILL BE MIN. SCHEDULE 40.
- PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
- NO JOINTS UNDERGROUND FOR COPPER.
- PLUMBING FIXTURES SHALL COMPLY WITH FBC-PLUMBING, 8TH EDITION(2023).
- WATER HAMMER ARRESTORS AS PER FBC-PLUMBING, 8TH EDITION(2023).
- PLUMBING CONTRACTOR SHALL REVIEW ALL BID DOCUMENTATION.
- PLUMBING CONTRACTOR SHALL REVIEW WALL FINISHES @ LOCATION REQUIRING BARRIER-FREE COMPLIANCE (EXAMPLE: CENTER LINE TO TOILET).
- 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.
- OPERATION MANUALS AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER. PROVIDE A COPY TO LL.

PLUMBING LEGEND



GREASE INTERCEPTOR SIZING

| TAG | DESCRIPTION | QTY | DIMENSIONS | | | VOLUME | | %USAGE | GPM | GPM |
|--|----------------------|-----|------------|-------|-------|--------|---------|--------|------|-----|
| | | | LENGTH | WIDTH | DEPTH | CU. IN | GALLONS | | | |
| K13 | UNDER BAR SINK UNITS | 01 | 14 | 10 | 14 | 5880 | 25.5 | 0.75 | 19.7 | 9.5 |
| TOTAL GPM | | | | | | | | | 19.7 | 9.5 |
| PROPOSED GREASE INTERCEPTOR (G1-1) MODEL SCHIER GB-1 | | | | | | | | | | |

GREASE INTERCEPTOR SCHEDULE

| ITEM | SERVICE | FLOW CAPACITY (GPM) | GREASE CAPACITY (LBS) | MANUFACTURER AND MODEL |
|---------------------------|--------------|---------------------|-----------------------|------------------------|
| GREASE INTERCEPTOR (G1-1) | KITCHEN AREA | 20 | 70 | SCHIER GB1 |

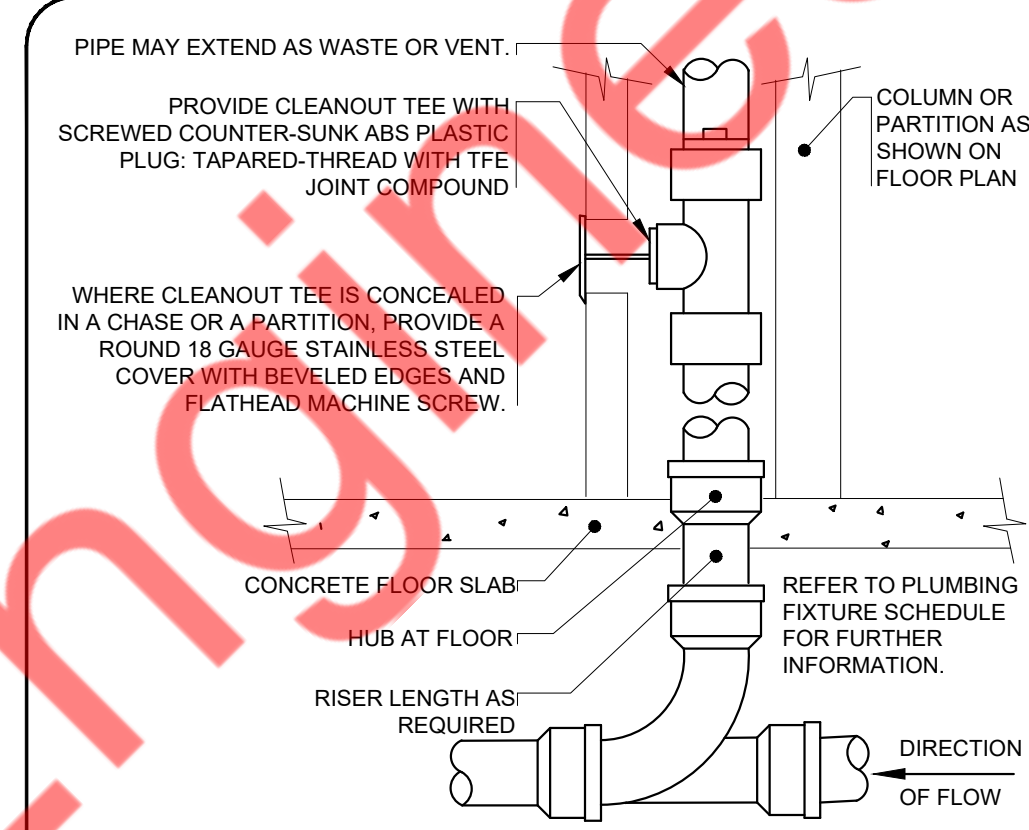
- NOTE:-
- CONTRACTOR TO PROVIDE ALL REQUIRED ACCESSORIES FOR SATISFACTORY WORKING OF GREASE TRAP AS PER SITE CONDITIONS.
 - CONTRACTOR SHALL SUBMIT PROPOSED GREASE INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION.

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.

PLUMBING INFORMATION :

- ALL LOUD AND DISRUPTIVE CONSTRUCTION NOISE, SUCH AS SAW CUTTING, IS TO BE DONE ON ADJOINING TENANTS OF HOURS. CONSTRUCTION NOISE SHALL NOT BE DISRUPTIVE TO TENANTS OR PATRONS OF THE SHOPPING CENTER.
- WHEN SAW CUTTING, PROVIDE PROTECTION (SUCH AS PLASTIC SHEETING FROM DECK TO FLOOR) FROM CONSTRUCTION DUST GOING INTO ADJOINING TENANT SPACES.



WALL CLEANOUT DETAIL

NOT TO SCALE

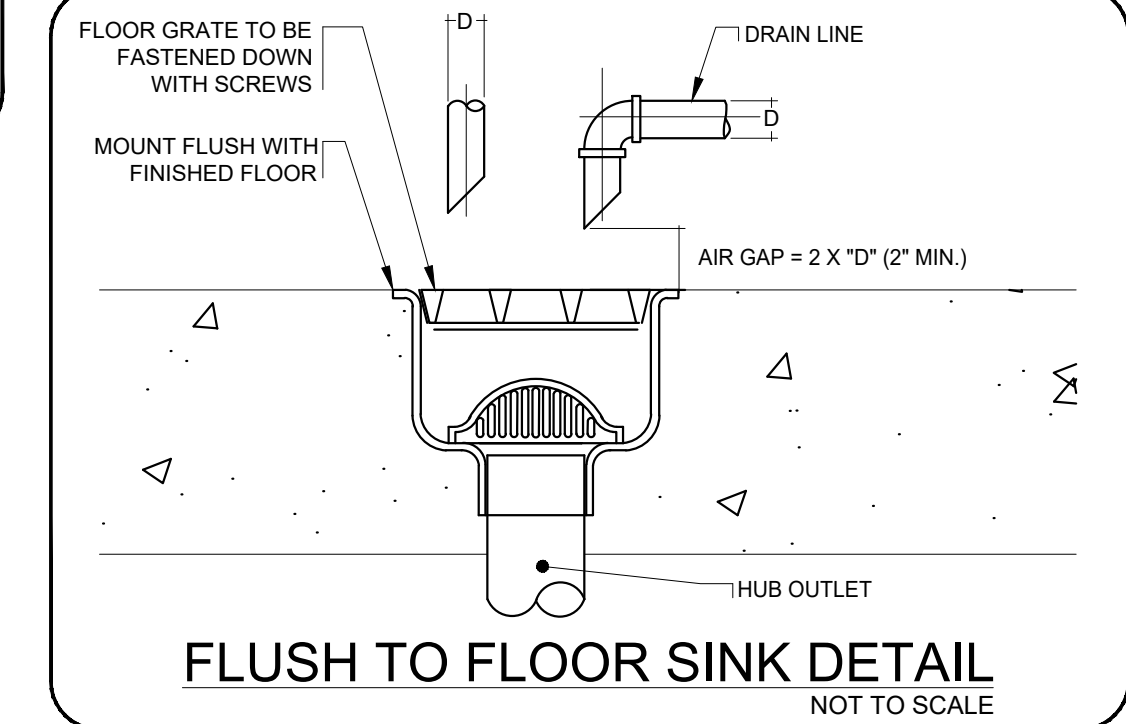
WALL CLEANOUT DETAIL NOTES

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

ENERGY CONSERVATION NOTES

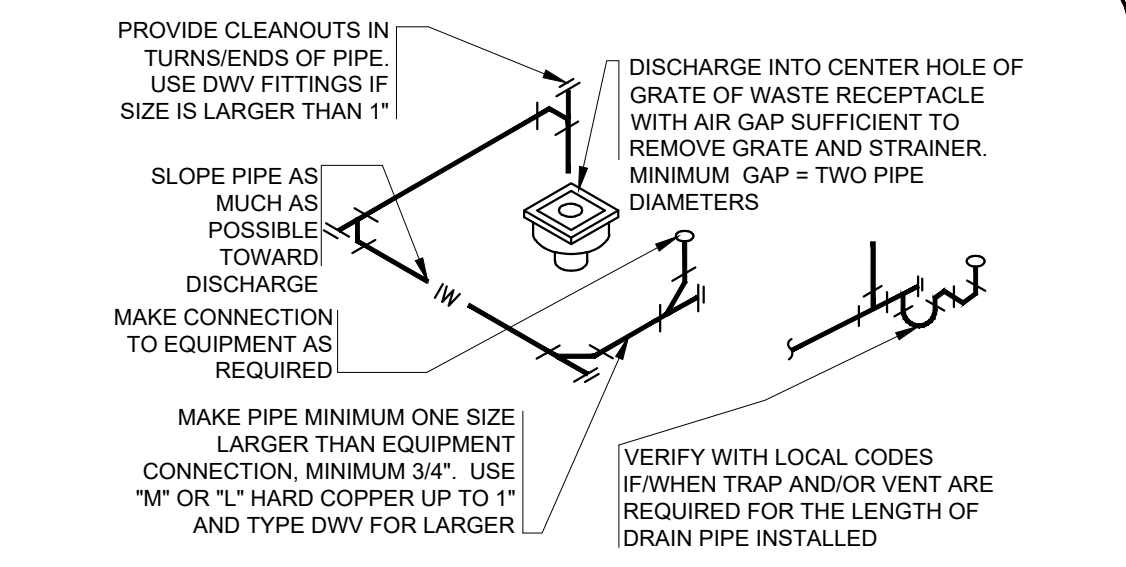
- AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.4, PIPING FROM A WATER HEATER TO THE TERMINATION OF HEATED WATER FIXTURE SUPPLY PIPE SHALL BE INSULATED IN ACCORDANCE WITH TABLE C403.2.10 OF MINIMUM PIPE INSULATION THICKNESS.
- AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.6.1, AUTOMATIC 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 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.7, PUMPS SHALL HAVE CONTROLS THAT COMPLY WITH BOTH OF THE FOLLOWING:
 - 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.
 - THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD-WATER PIPING TO 104°F (40°C).
- HW SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2023 FBC-ENERGY CONSERVATION CODE SECTION C404.5.1. THE HW PIPE LENGTH FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER FOLLOWING TABLE.

| FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F) | MINIMUM PIPE INSULATION THICKNESS | | NOMINAL PIPE OR TUBE SIZE (INCHES) | | | | | |
|--|-----------------------------------|---|------------------------------------|-----|-------------|-------------|---------|-----|
| | INSULATION CONDUCTIVITY | CONDUCTIVITY BTU-IN/(H-FT ² ·°F) | MEAN RATING TEMPERATURE (°F) | <1 | 1 TO <1 1/2 | 1 1/2 TO <4 | 4 TO <8 | ≥8 |
| 141-200 | 0.25-0.29 | 125 | 1.5 | 1.5 | 2 | 2 | 2 | 2 |
| 105-140 | 0.21-0.28 | 100 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 | 1.5 |
| 40-60 | 0.21-0.27 | 75 | 0.5 | 0.5 | 1.0 | 1.0 | 1.0 | 1.0 |



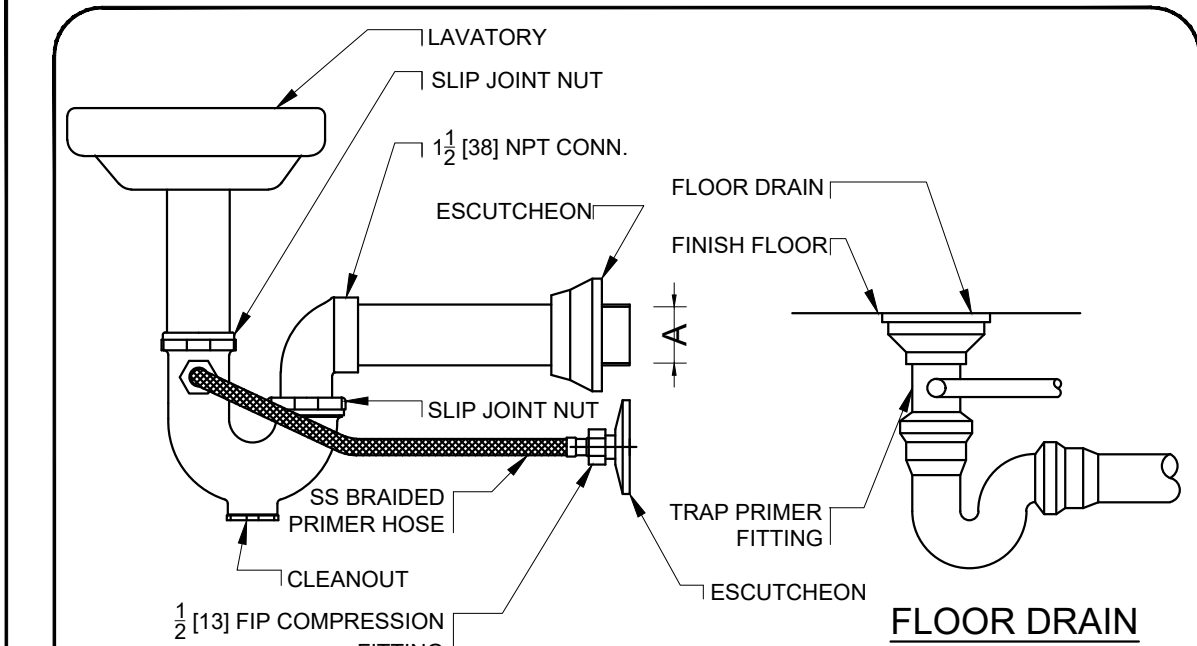
FLUSH TO FLOOR SINK DETAIL

NOT TO SCALE



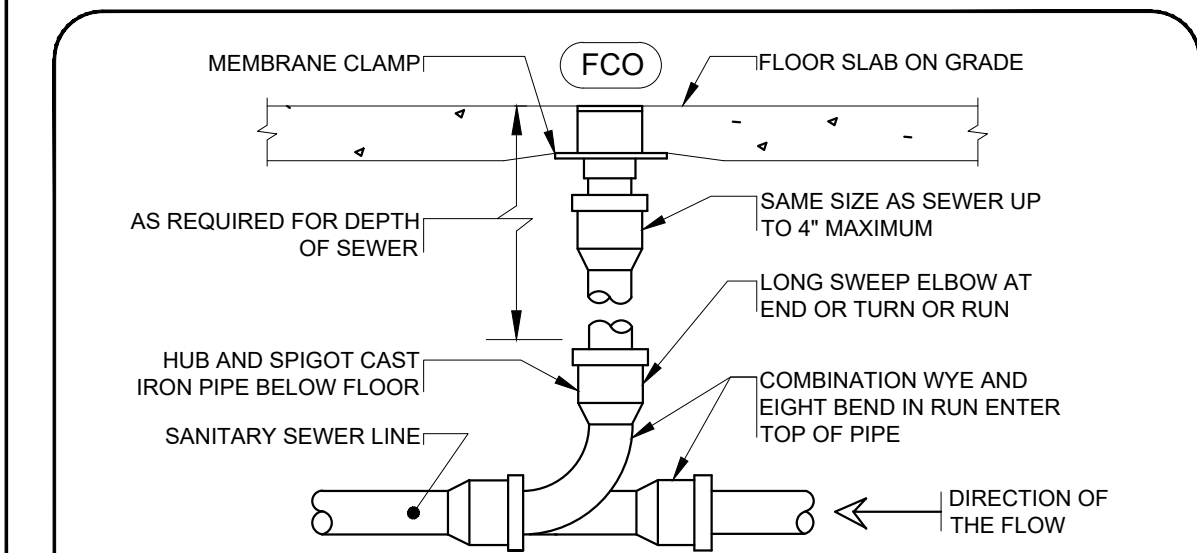
INDIRECT WASTE DETAIL

NOT TO SCALE



TRAP RESEAL DETAIL

NOT TO SCALE

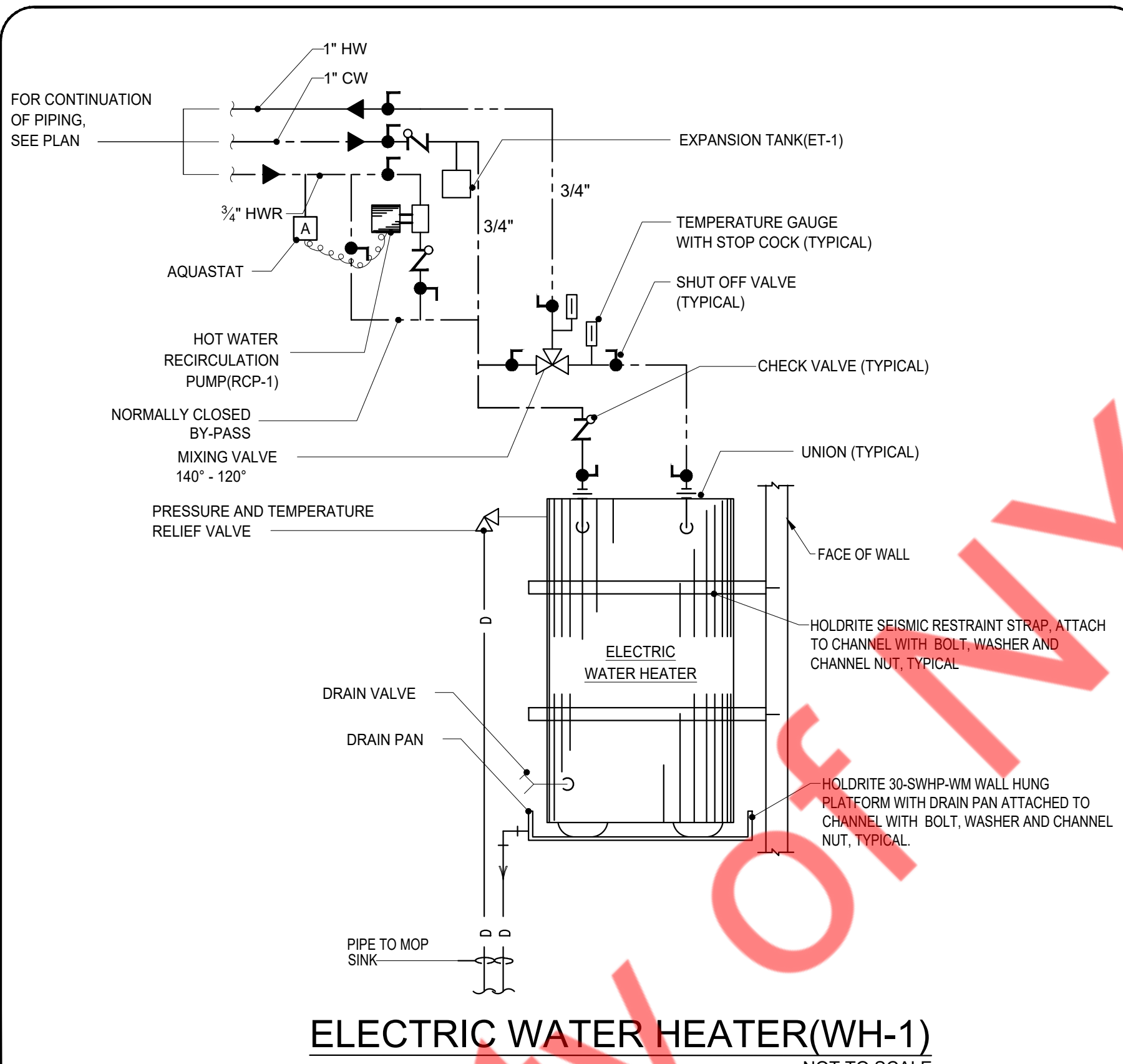


FLOOR CLEANOUT DETAIL

NOT TO SCALE

FLOOR CLEANOUT DETAIL NOTES

- LOCATE CLEANOUT AT THIS LOCATIONS:
 - BUILDING EXIT
 - AT TURNS OF PIPES GREATER THAN 45 DEGREES
 - AT 90° INTERVALS ON STRAIGHT RUNS
 - WHERE IS SHOWN ON PLANS
 - WHERE IS 18" CLEAR AROUND



ELECTRIC WATER HEATER(WH-1)

NOT TO SCALE

KITCHEN EQUIPMENT PLUMBING SCHEDULE

| ITEM NO. | QTY. | DESCRIPTION | MANUFACTURER | MODEL | WATER | | WASTE | |
|----------|------|---------------------------------|-----------------------------|----------------------------|-------|------|--------|----------|
| | | | | | HOT | COLD | DIRECT | INDIRECT |
| K7 | 1 | RINSER FOR ESPRESSO PITCHERS | ESPRESSO PARTS | BPPR724 | | | | 1/2" |
| K8 | 1 | ESPRESSO CAPPUCHINO MACHINE | RABOLIO GROUP NORTH AMERICA | RS1 3-GROUP | | 3/4" | | 2" |
| K13 | 1 | UNDERBAR SINK UNITS | ADVANCE TABCO | SLB-43L | 3/4" | 3/4" | | 2" |
| K14 | 1 | ICE MAKER WITH BIN, CUBE- STILE | HOSHIZAKI | IM-200BAC | | | 1/2" | 3/4" |
| K15 | 1 | DROP IN SINK/HAND SINK | ADVANCE TABCO | DI-1-5SP | 1/2" | 1/2" | 2" | |
| K19 | 2 | COFFE BREWER | BUNN | B38700,001 | | | 1/2" | |
| K21 | 1 | ICE BIN/ ICE CADDY, MOCILE | ADVANCE TABCO | SCI-MIC-24 | | | | 1" |
| K24 | 1 | MOP SINK CABINET | JOHN BOOS | PBJC-222584-X | 3/4" | 3/4" | | 3" |
| K25 | 1 | WATER HEATER | SEE SCHEDULE | | | | | |
| FS | 3 | FLOOR SINKS | ZURN | Z1900-23-31 | | | | 3" |
| FD | 1 | FLOOR DRAINS | ZURN | ZS415 W / TYPE BS STRAINER | | | | 3" |

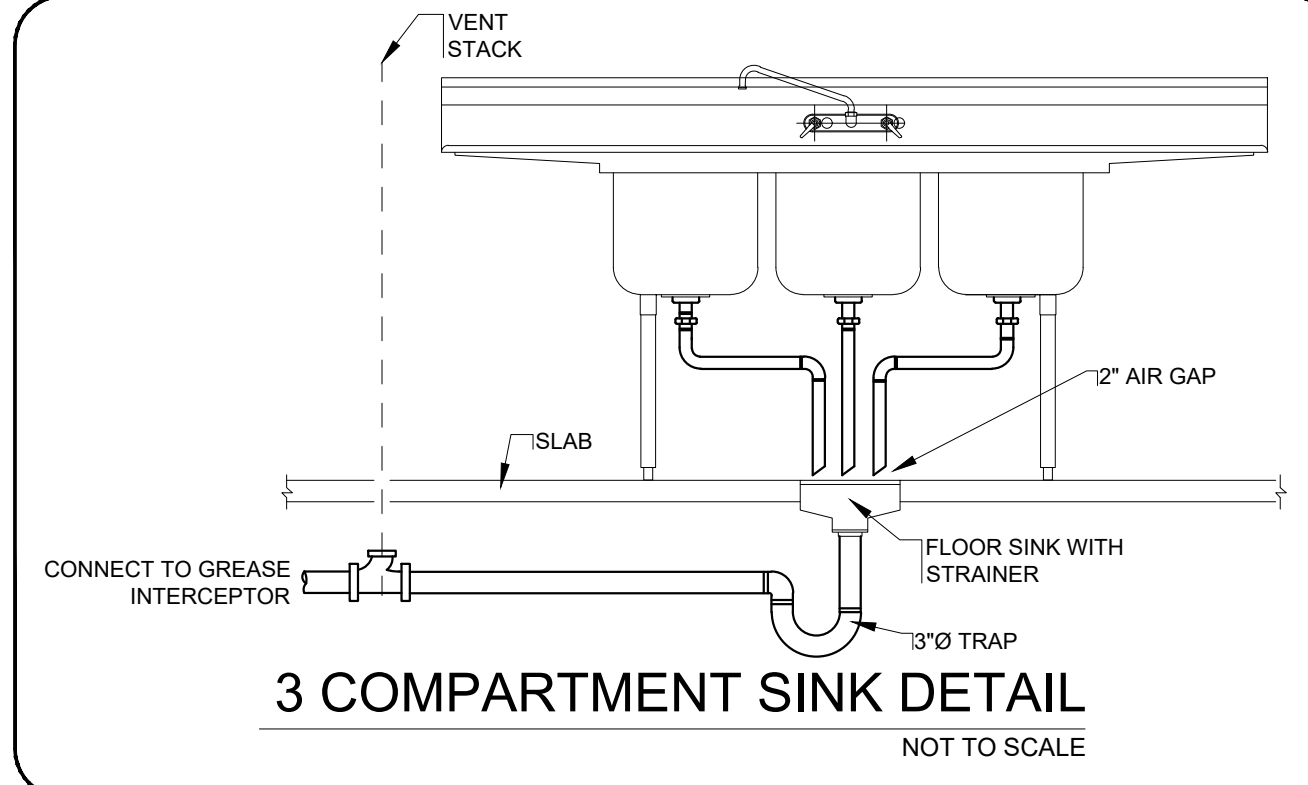
RESTROOM FIXTURE SCHEDULE

| ITEM NO. | QTY. | DESCRIPTION | MANUFACTURER | MODEL | WATER | | WASTE | |
|----------|------|-------------------------|-------------------|---------------------------|-------|------|--------|----------|
| | | | | | HOT | COLD | DIRECT | INDIRECT |
| A1 | 1 | ACCESSIBLE WATER CLOSET | GLACIER BAY | SKU: 1006-587-338 (WHITE) | - | 3/4" | | 4" |
| A2 | 1 | ACCESSIBLE LAVATORY | KOHLER | K-2032 | - | - | | 2" |
| A3 | 1 | ACCESSIBLE FAUCET | AMERICAN STANDARD | 7417201.002 | 1/2" | 1/2" | - | - |

APPLICABLE CODES

ALL WORK AND MATERIAL SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FLORIDA 2023.8TH EDITION AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS CODES APPLICABLE TO THIS PROJECT:

- 2020 NATIONAL ELECTRICAL CODE (NEC)
- 2023 FLORIDA BUILDING CODE, ENERGY CONSERVATION, 8TH EDITION
- 2023 FLORIDA BUILDING CODE, BUILDING, 8TH EDITION
- 2023 FLORIDA BUILDING CODE, PLUMBING, 8TH EDITION
- 2023 FLORIDA BUILDING CODE, MECHANICAL, 8TH EDITION
- 2023 FLORIDA BUILDING CODE, FUEL GAS, 8TH EDITION
- 2023 FLORIDA FIRE PREVENTION CODE, 8TH EDITION
- 2023 FLORIDA BUILDING CODE, ACCESSIBILITY, 8TH EDITION



3 COMPARTMENT SINK DETAIL

NOT TO SCALE

NY ENGINEERS

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

REVISIONS DATES:
 Δ 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

PLUMBING DETAILS, NOTES & SCHEDULES

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

REVISIONS DATES:
 ▲ 08/25/25 BD COMMENTS

ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

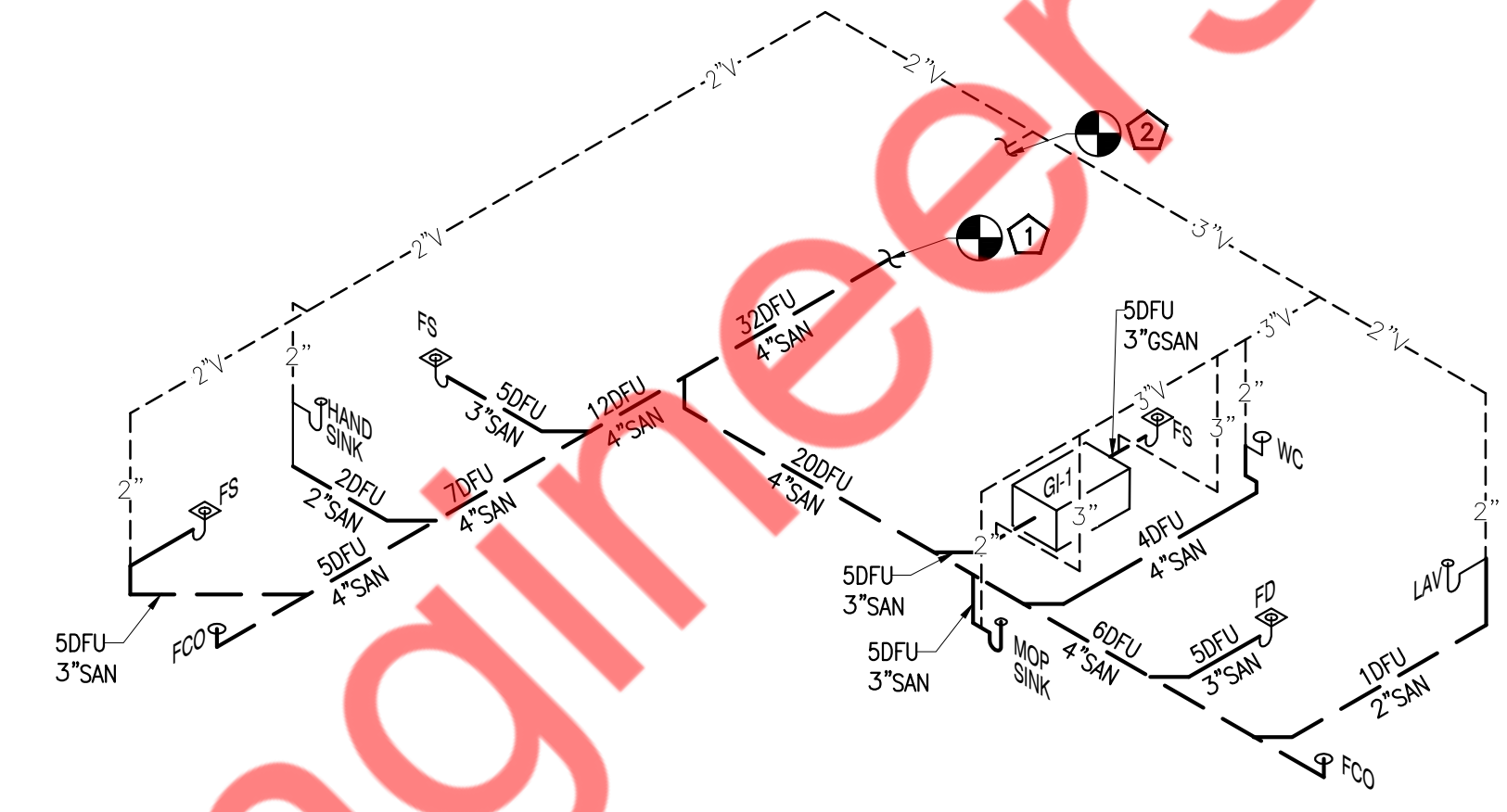
PLUMBING
 SANITARY PLAN
 & RISER

GENERAL NOTES

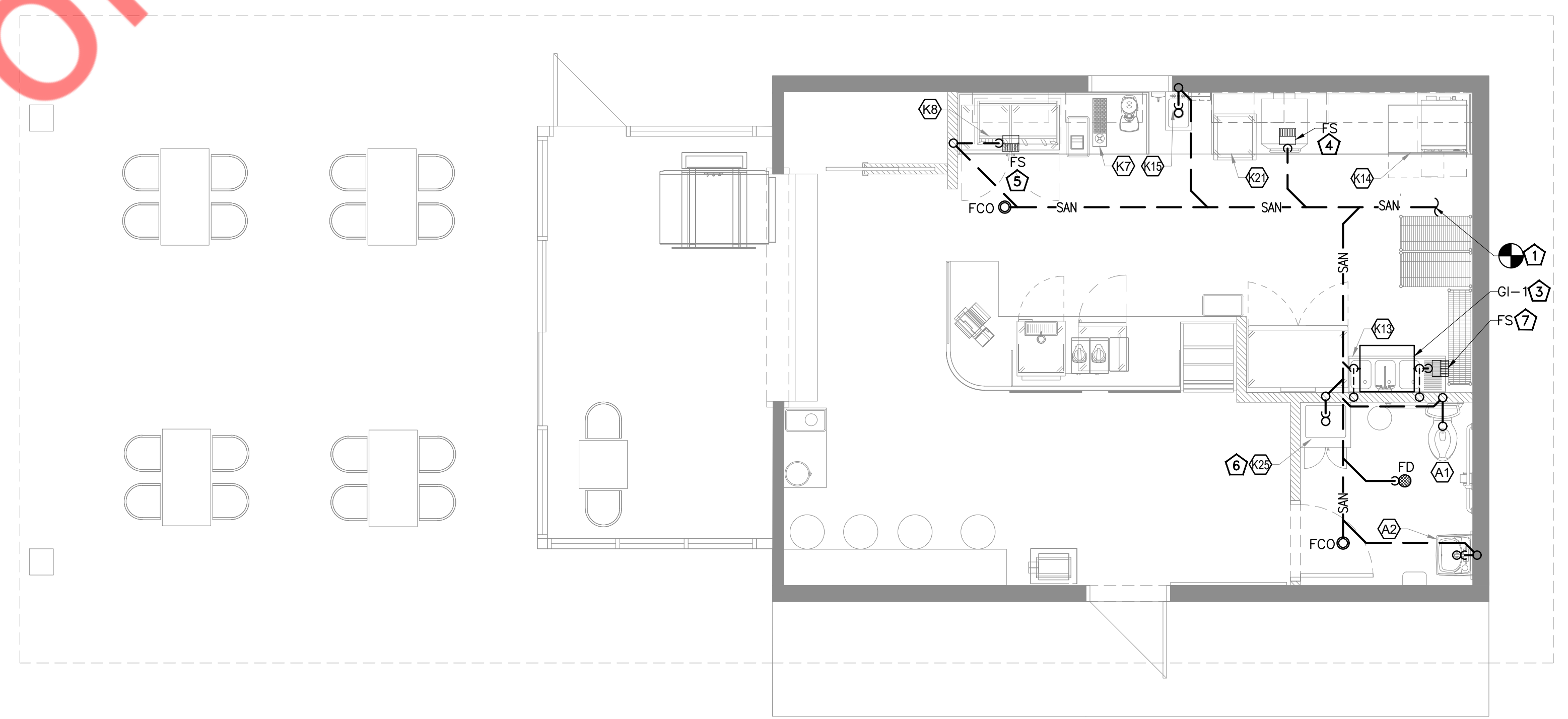
1. PROVIDE THE MINIMUM SLOPE AND PIPE MATERIAL FOR ALL SANITARY MAINS AND GREASE WASTE MAINS (FOR MAINS 6 INCH DIAMETER OR LESS, A MINIMUM OF 1% SLOPE IS REQUIRED). CONTRACTOR TO COORDINATE INVERT FOR CLEANOUTS ON SITE.
2. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
3. ALL MATERIAL INDICATED AND IMPLIED ON THESE DRAWINGS SHALL BE NEW UNLESS OTHERWISE NOTED.
4. ALL CLEANOUTS TO BE ACCESSIBLE.
5. CONTRACTOR TO FIELD VERIFY THE EXISTING GREASE SANITARY AND VENT LOCATION AND ROUTING. MAKE NECESSARY CHANGES TO NEW PIPING AS PER THE EXISTING SITE CONDITION.

SANITARY PLAN AND RISER KEY NOTES

1. EXTEND AND CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY LINE OF ADEQUATE SIZE IN AREA. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING AND INVERT OF EXISTING SANITARY MAIN AND MAKE NECESSARY CHANGING IF REQUIRED.
2. EXTEND & CONNECT NEW 3" VENT PIPING TO EXISTING VENT PIPE OF ADEQUATE SIZE IN AREA. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION, ROUTING OF EXISTING VENT MAIN AND MAKE NECESSARY CHANGES IF REQUIRED.
3. NEW GREASE INTERCEPTOR GB1 OR EQUAL. CONTRACTOR TO COORDINATE FOR EXACT LOCATION OF GREASE INTERCEPTOR AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH CITY/COUNTY REGULATIONS AND MANUFACTURERS INSTRUCTION.
4. PROVIDE INDIRECT DRAIN FROM ICE MACHINE AND ICE BIN TO THE FLOOR SINK.
5. PROVIDE INDIRECT DRAIN FROM RINSER FOR ESPRESSO PITCHERS AND ESPRESSO MACHINE TO THE FLOOR SINK.
6. PROVIDE INDIRECT DRAIN FROM NEW WATER HEATER TO THE MOP SINK.
7. PROVIDE INDIRECT DRAIN FROM 3-COMPARTMENT SINK TO THE FLOOR SINK. EACH WELL OF 3-COMPARTMENT SINK SHALL DISCHARGE INDEPENDENTLY TO A WASTE RECEPTOR.



SANITARY RISER SCALE N.T.S. 2



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

Property of NY Engineers

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

REVISIONS DATES:
 Δ 08/25/25 BD COMMENTS

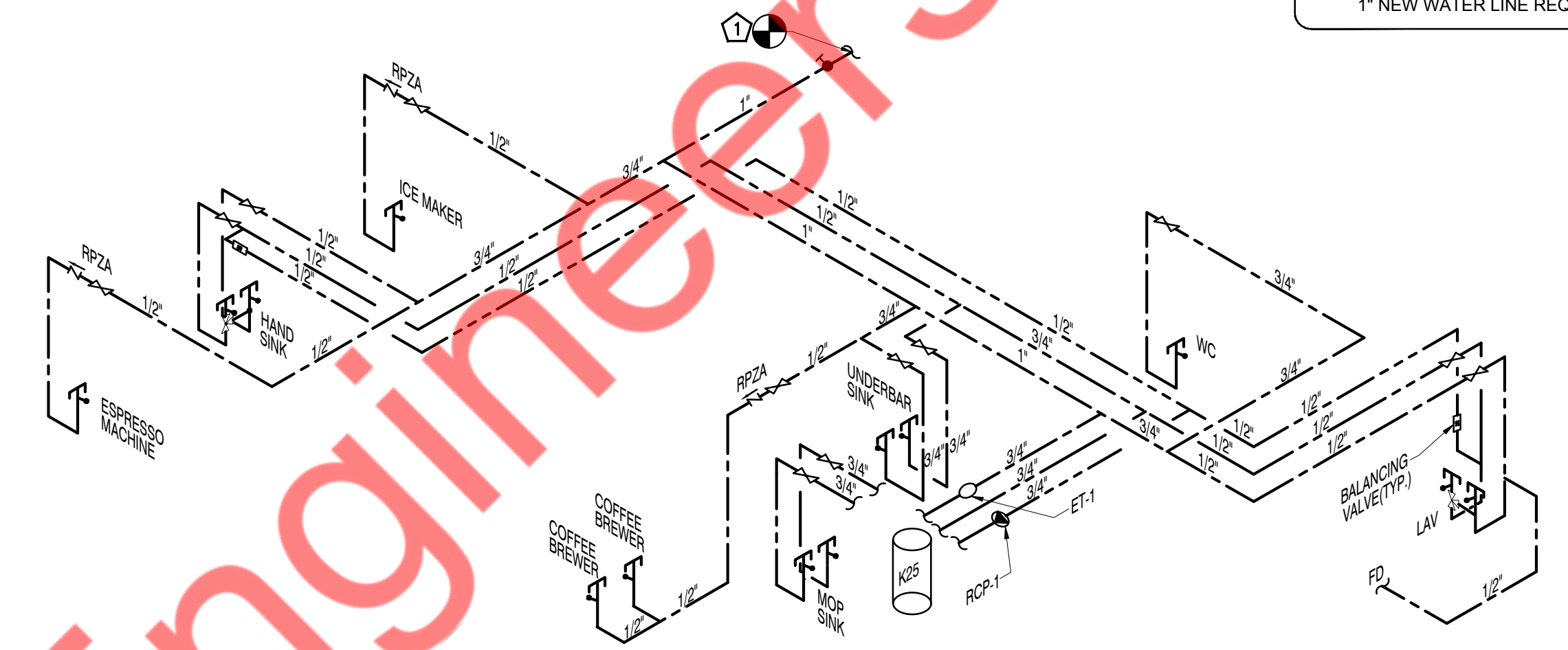
ISSUE DATE: 07.02.25
 PROJECT #: 447A.1433A.1
 DRAWN BY: NYE
 CHECKED BY: NYE

PLUMBING
 WATER PLAN
 & RISER

| FIXTURE FACTOR VALUE* | |
|-----------------------|---------------|
| 1 HAND SINK @ 0.7 | = 0.7 |
| 13-COMP SINK @ 4 | = 4 |
| 1 LAVATORY(N) @ 2 | = 2 |
| 1 WATER CLOSET(N) @ 5 | = 5 |
| MOP SINK @ 3 | = 3 |
| 4 **MISC (N) @ 0.25 | = 1.0 |
| TOTAL | = 15.7 |

* TABLE E103.3(2) OF FLORIDA PLUMBING CODE, 2023 (8TH EDITION)

** ESPRESSO MACHINE, ICE MAKER & COFFEE BREWER.
 1" NEW WATER LINE REQUIRED.



WATER RISER SCALE N.T.S. 2

| NEW ELECTRIC STORAGE WATER HEATER SCHEDULE | |
|--|------------|
| MANUFACTURER | AO SMITH |
| MODEL | DEL-20 |
| EQUIPMENT TAG | K25 |
| STATUS | NEW |
| CAPACITY | 20 GALLONS |
| QUANTITY | 1 |
| FUEL | ELECTRIC |
| KW | 4 |
| RECOVERY | 23 |
| EFFICIENCY | - |
| VOLTAGE | 208 |
| AMPERAGE | 19.23 |
| WEIGHT | 73 LBS. |

- NOTES:
- *ELEMENTS @ 72° F TEMPERATURE RISE.
 - CONTRACTOR IS TO FIELD VERIFY THE OPERATING CONDITION OF THE EXISTING WATER HEATER AND NOTIFY THE ENGINEER IF NOT IN OPERATION CONDITION.
 - INSTALL NEW EXPANSION TANK (ET-1) AMTROL MODEL THERM-X-TROL ST-5C-DD, 2.0 GAL VOLUME PER LOCAL CODE REQUIREMENTS.

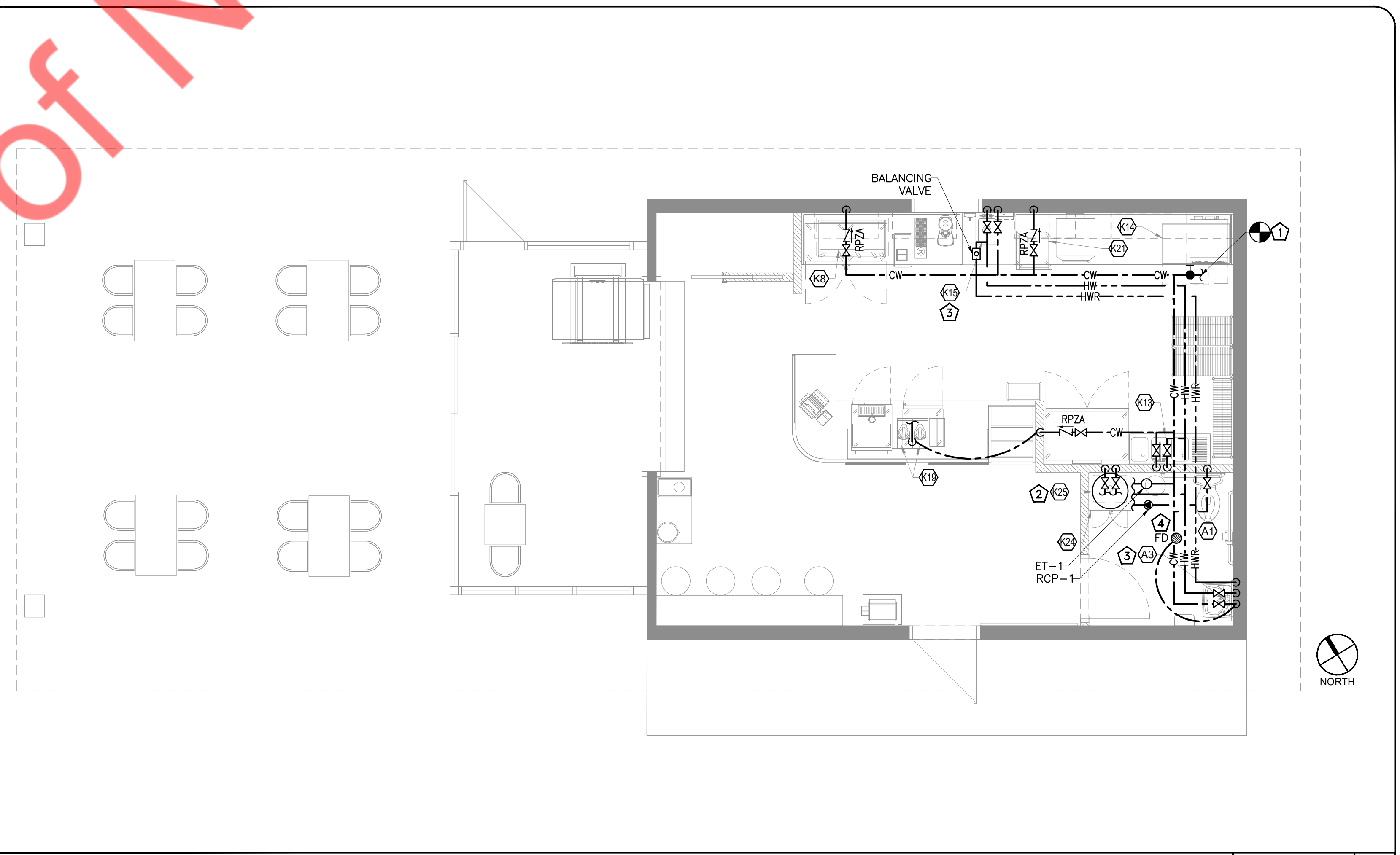
| RECIRCULATION PUMP SCHEDULE | |
|-----------------------------|----------------------|
| MANUFACTURER & MODEL | GRUNDFOS UP 15-18 B5 |
| EQUIPMENT TAG | RCP-1 |
| STATUS | NEW |
| GPM | 1 |
| WATER TEMP.(°F) | 140 |
| PUMP TYPE | INLINE |
| MHP | 85 WATTS |
| V/PH/Hz | 115/1/60 |
| RPM | 2280 |
| SERVICE FACTOR | 1.0 |

WATER PLAN & RISER KEY NOTE

- EXTEND 1" NEW WATER LINE AND CONNECT TO EXISTING WATER LINE. CONTRACTOR TO FIELD VERIFY AVAILABILITY OF EXISTING BFP. PROVIDE NEW IF NOT EXISTING. INSTALL BFP AS PER LOCAL JURISDICTION REQUIREMENT. BASE BID ACCORDINGLY.
- NEW WATER HEATER AS SHOWN IN PLAN. REFER TO WATER HEATER SCHEDULE FOR MORE DETAILS.
- PROVIDE ALL HAND SINKS AND LAVATORY WITH THERMOSTATIC MIXING VALVE. LIMIT HOT WATER TEMPERATURE TO 110°F SHALL COMPLY WITH ASSE 1070 AS PER FLORIDA PLUMBING CODE 2023.
- PROVIDE A POTABLE WATER SUPPLY TO EMERGENCY FLOOR DRAINS TO PROTECT TRAP SEAL. WATER SUPPLIED TRAP SEAL PRIMER VALVES SHALL CONFIRM TO ASSE 1018.

- PLUMBING INFORMATION :**
- ALL LOUD AND DISRUPTIVE CONSTRUCTION NOISE, SUCH AS SAW CUTTING, IS TO BE DONE ON ADJOINING TENANTS OF HOURS. CONSTRUCTION NOISE SHALL NOT BE DISRUPTIVE TO TENANTS OR PATRONS OF THE SHOPPING CENTER.
 - WHEN SAW CUTTING, PROVIDE PROTECTION (SUCH AS PLASTIC SHEETING FROM DECK TO FLOOR) FROM CONSTRUCTION DUST GOING INTO ADJOINING TENANT SPACES.

- GENERAL NOTES**
- CW/HW/HWR PIPING TO BE PROVIDED WITH INSULATION AS PER 2023 FLORIDA ENERGY CONSERVATION CODE.
 - REFER RISER DIAGRAMS FOR ALL PIPE SIZES.
 - PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
 - PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT-OFF VALVES AS REQUIRED.
 - WATER HEATER DRAIN SPILL TO THE MOP SINK.



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