

VENTILATION CALCULATION AS PER NEW HAMPSHIRE MECHANICAL CODE 2021														
SL NO	ROOM NAME	AREA	OCCUPANCY AS PER NEW HAMPSHIRE MC 2021 /1000SQ.FT.	OCCUPANCY AS PER NEW HAMPSHIRE MC 2021	NO. OF CHAIR	FINAL OCCUPANCY	CFM/SQ.FT	CFM/ PERSON	CALCULATED OA CFM	EFFECTIVENESS	REQUIRED OA CFM	PROVIDED OA CFM	EXHAUST RATE CFM/UNIT	PROVIDED EXHAUST AIR CFM
1	SALES AREA	498	15	8	3	5	0.12	7.5	98	0.8	123	125	-	-
2	PUBLIC PIERCING	118	5	1	1	2	0.06	5	18	0.8	23	25	-	-
3	HALLWAY	78	0	0	0	0	0.06	5	5	0.8	6	10	-	-
4	PRIVATE PIERCING -A	102	5	1	1	2	0.06	5	17	0.8	21	25	-	-
5	PRIVATE PIERCING -B	111	5	1	1	2	0.06	5	17	0.8	21	25	-	-
6	BACK OF HOUSE	154	0	0	0	0	0.12	0	19	0.8	24	25	-	-
7	RESTROOM	50	0	0	0	0	0	0	0	0.8	0	0	70	80
	TOTAL	1111	-	-	-	11	-	-	174	-	218	235	-	80

NOTE: CONTRACTOR SHALL FIELD VERIFY WITH THE LANDLORD'S ENGINEER THE OUTSIDE AIR PERCENTAGE PROVIDED THROUGH THE LANDLORD'S ROOFTOP UNIT SUPPLY AND CONFIRM THAT A MINIMUM OF 20% OUTSIDE AIR TO SUPPLY AIR RATIO IS MAINTAINED.

FAN SCHEDULE														
TAG	MANUFACTURER	MODEL	LOCATION	AREA SERVED	FAN PERFORMANCE			ELECTRICAL			WEIGHT LBS	CONTROL	REMARKS	
					CFM	ESP	FAN RPM	FLA/WATT	VOLTS	PHASE				HZ
(N)EF-1	GREENHECK	SP-B150	SEE PLAN	SEE PLAN	80	0.8	939	1.8/-	115	1	60	15	LIGHT SWITCH	1-5

NOTES:
1. MANUFACTURE TO PROVIDE WITH DECORATIVE GRILLE.
2. PROVIDE FACTORY MOUNTED AND INSTALLED DISCONNECT.
3. COORDINATE EXACT POWER REQUIREMENT WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FAN WITH A BACKDRAFT DAMPER, AND SPEED CONTROLLER FOR BALANCING PURPOSE.
5. DIRECT DRIVE FAN TO HAVE ECM MOTOR.

SINGLE DUCT TERMINAL UNIT SCHEDULE														
TAG	MANUFACTURER	MODEL	SIZE		UNIT DIMENSION		CFM				ELECTRICAL			
			UNIT	OUTLET (WXH)	WXDXH	MAX	DESIGN	MIN	RAD.	DISCH.	HEATER Kw	MCA	MOP	VOLTAGE/PH/HZ
(N)VAV-1	ENVIRO-TEC	SDR-EH	12	14-3/4 X 13-3/4	16 X 41 X 15	1600	1200	185	21	26	3.5	10	AS PER MANUFACTURER	208/3/60

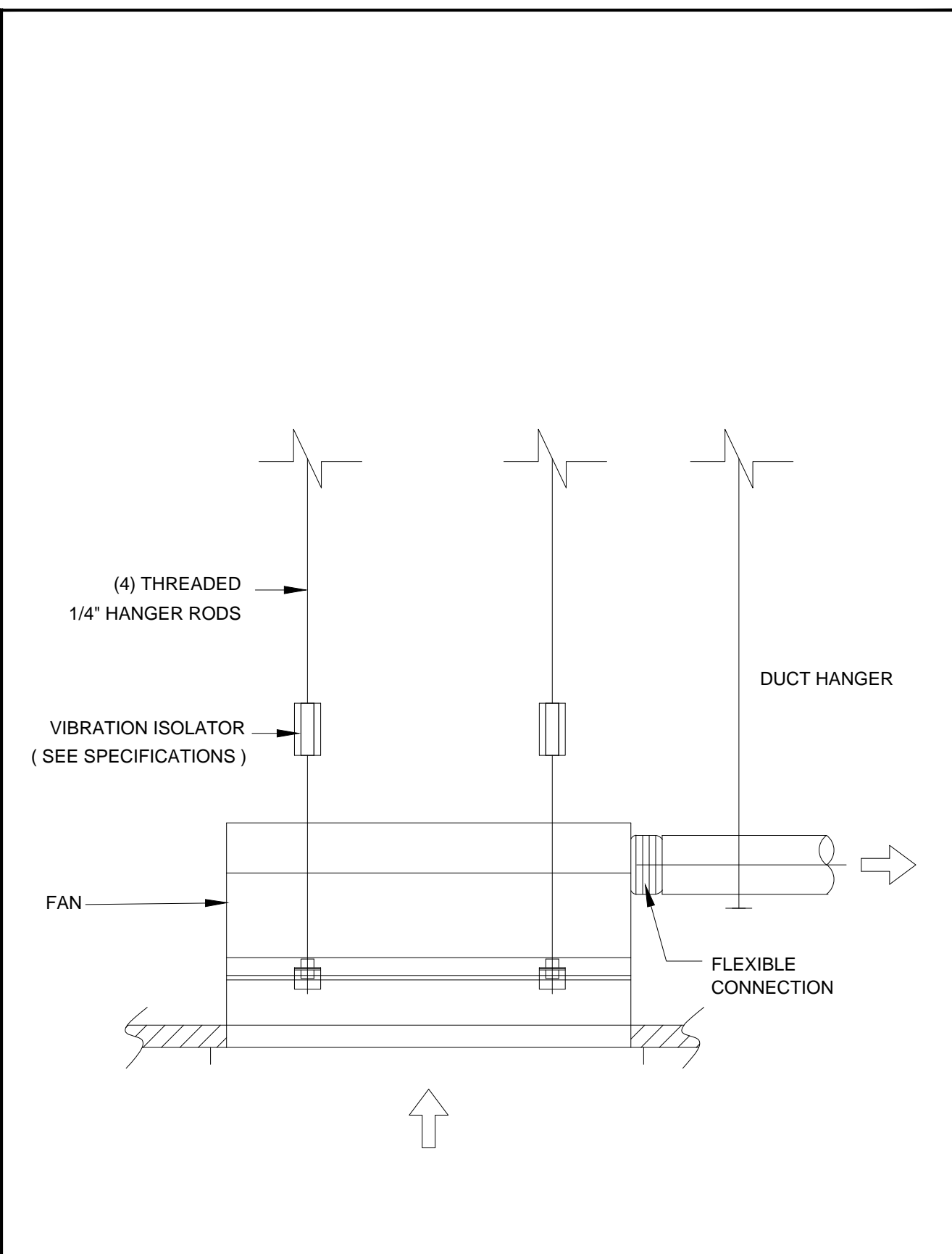
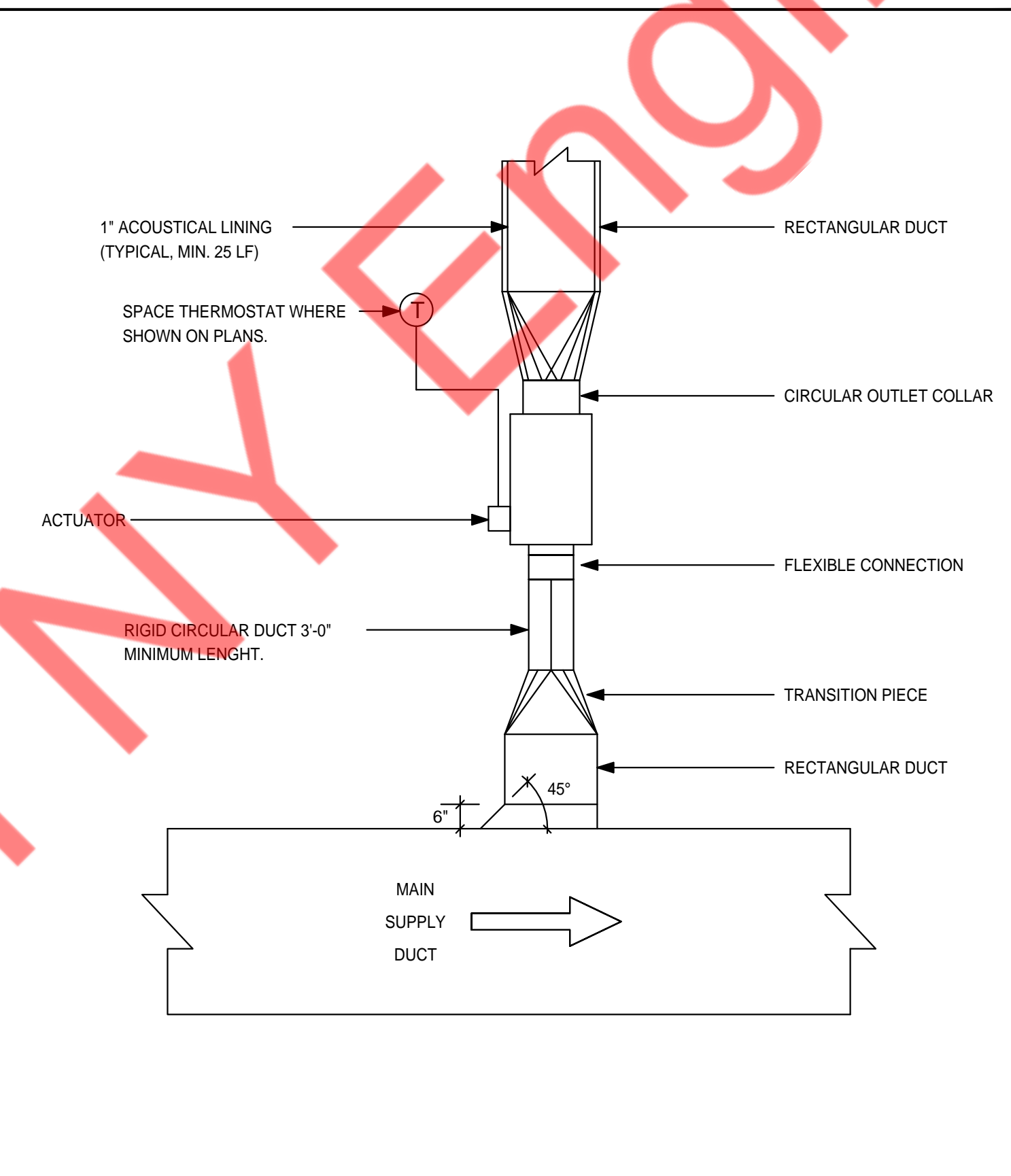
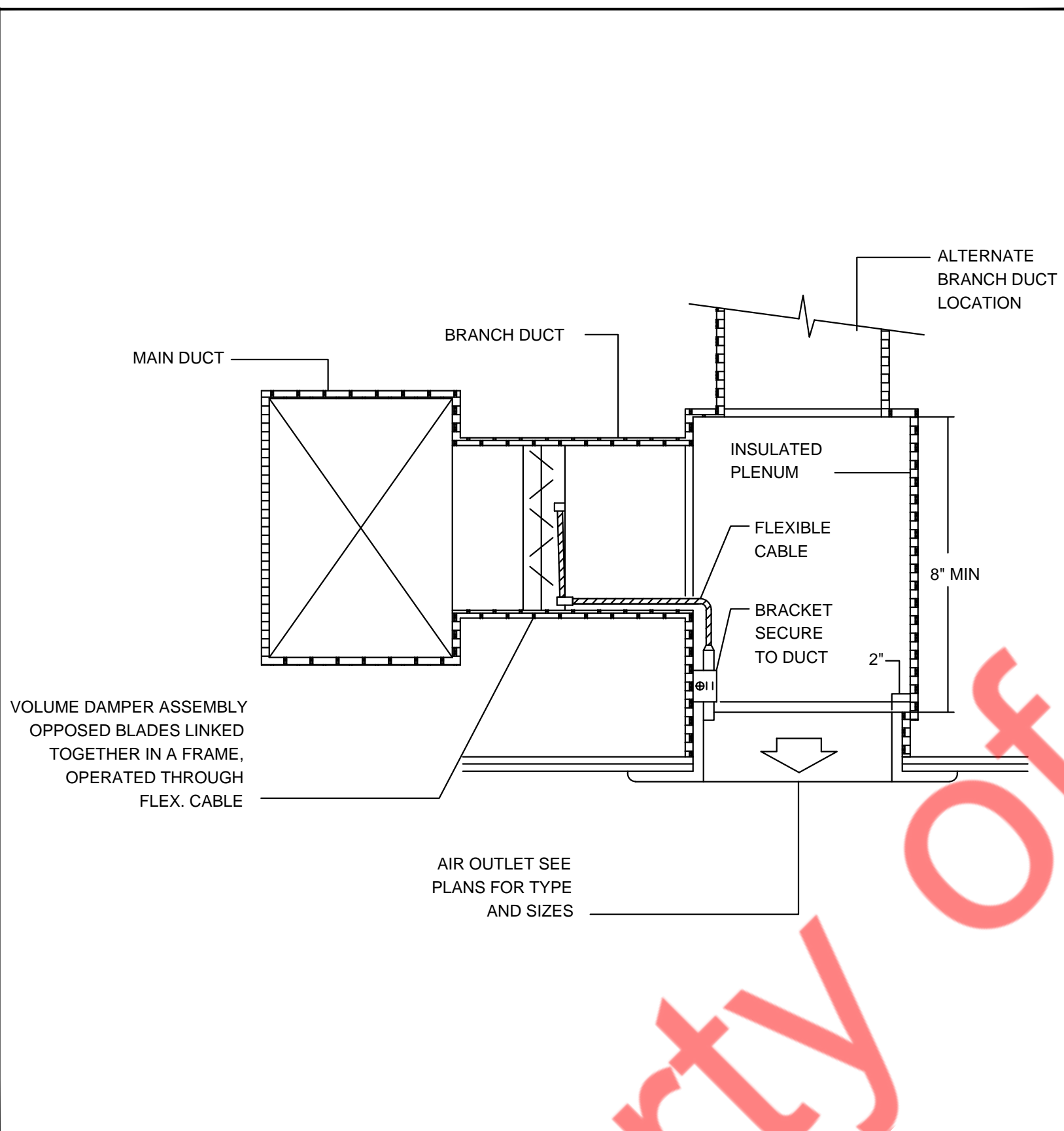
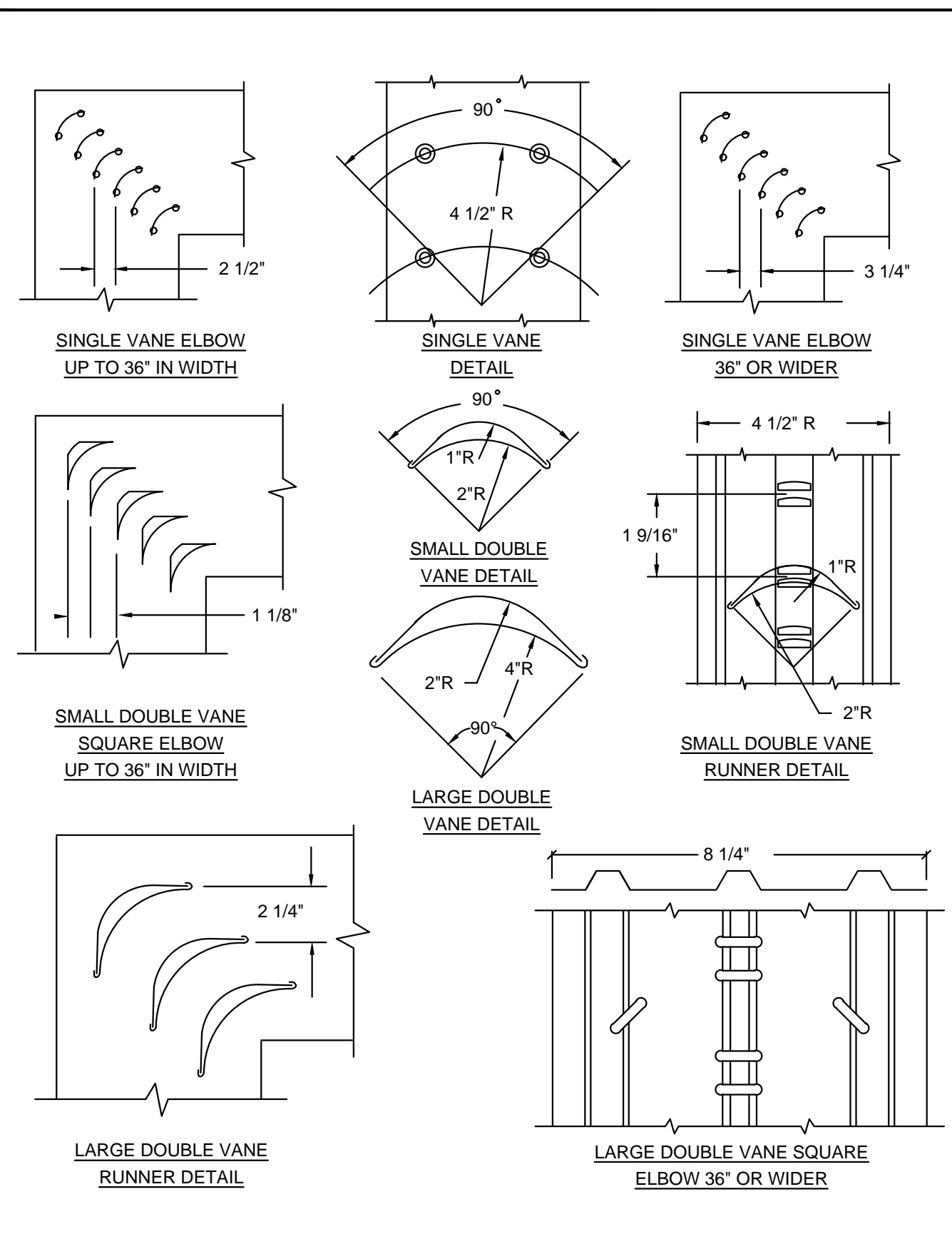
Notes:
1) ALL PERFORMANCE BASED ON TESTS CONDUCTED IN ACCORDANCE WITH ASHRAE 130-2008 AND AHRI 880-2011.
2) ALL NC LEVELS DETERMINED USING AHRI 885-2008 APPENDIX E.
3) UNITS OF MEASURE: DIMENSIONS (IN), AIRFLOW (CFM), AIR PRESSURE (IN WG) AND TEMPERATURES (DEGF).
4) THE MINIMUM SUPPLY CIRCUIT AMPACITY (MCA) AND MAXIMUM OVERCURRENT PROTECTION (MOP) RATINGS ARE AS PER THE MANUFACTURERS GUIDELINES. COORDINATE WITH MANUFACTURER.
5) CONTRACTOR TO BALANCE THE VAV BOX TO CFM MENTIONED ON THE FLOOR PLANS BY NECESSARY MEANS.
6) PROVIDE THERMOSTAT FOR VAV BOX. COORDINATE EXACT LOCATION OF THERMOSTAT WITH ARCHITECT.
7) PROVIDE ALL NECESSARY CONTROLS FOR PROPER FUNCTIONING OF SYSTEM.
8) VERIFY COMPATIBILITY OF VAV BOX WITH LL'S CENTRAL AIR CONDITIONING SYSTEM BEFORE PURCHASE.

AIR TERMINAL SCHEDULE						
TAG	MANUFACTURER	MODEL	TYPE	CFM RANGE	NECK SIZE	NOMINAL FACE SIZE
LDS-1		FL20	1"-1 SLOT LINEAR DIFFUSER SUPPLY	25-50 CFM/FT	6"Ø	AS PER CFM
CD-1		TMS	SUPPLY DIFFUSER	0-120	6"Ø	12"X12"
RG-1		50F	RETURN GRILLE	0-1000		24"X24"
RG-2		50F	RETURN GRILLE	0-350		14"X14"
SG-1		300FL	SUPPLY GRILLE	0-200	10"X6"	12"X8"

NOTES:
1) ALL DIFFUSERS - CONTRACTOR SHALL COORDINATE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS TO ENSURE PROPER AIR DEVICE BORDER SELECTION.
2) REFER ARCHITECTURAL DRAWINGS FOR CEILING TYPE.
3) COORDINATE COLOR/FINISH WITH ARCHITECT.
4) PROVIDE OPPOSED BLADE DAMPER/VOLUME DAMPER AT EACH AIR TERMINAL FOR AIR BALANCING. PROVIDE CABLE OPERATED DAMPER IN INACCESSIBLE CEILINGS.

LANDLORD REVIEW COMMENTS (GG):

Tenant shall NOT drill, weld, screw, shoot, and / or penetrate Landlord's building structure, floor deck, and / or roof deck. Tenant may non-destructively attach or suspend from, utilizing alternative methods of attachment, the top chord of the joist or the structural steel which exists within the Premises with an evaluation completed by the Tenant's structural engineer of the existing structure and determination that it is sufficient for the additional load in accordance with the building code that has been adopted by the AHJ. Refer to Structural Modification Requirements.

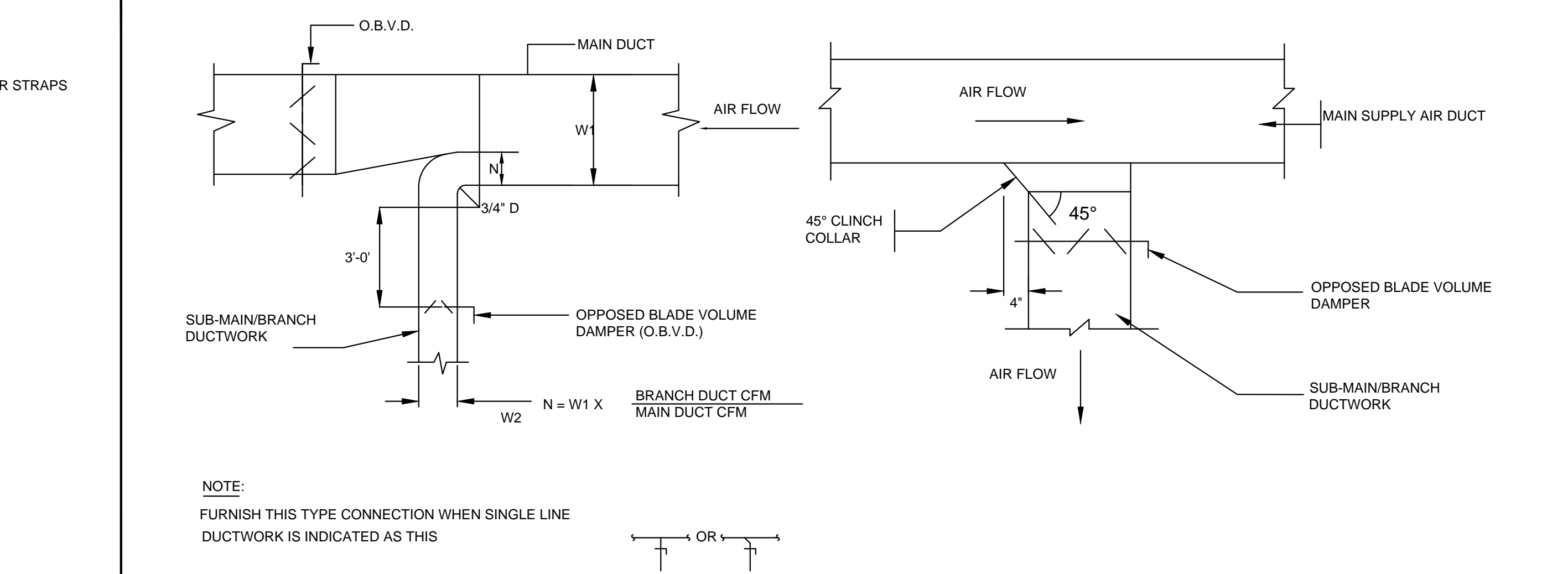
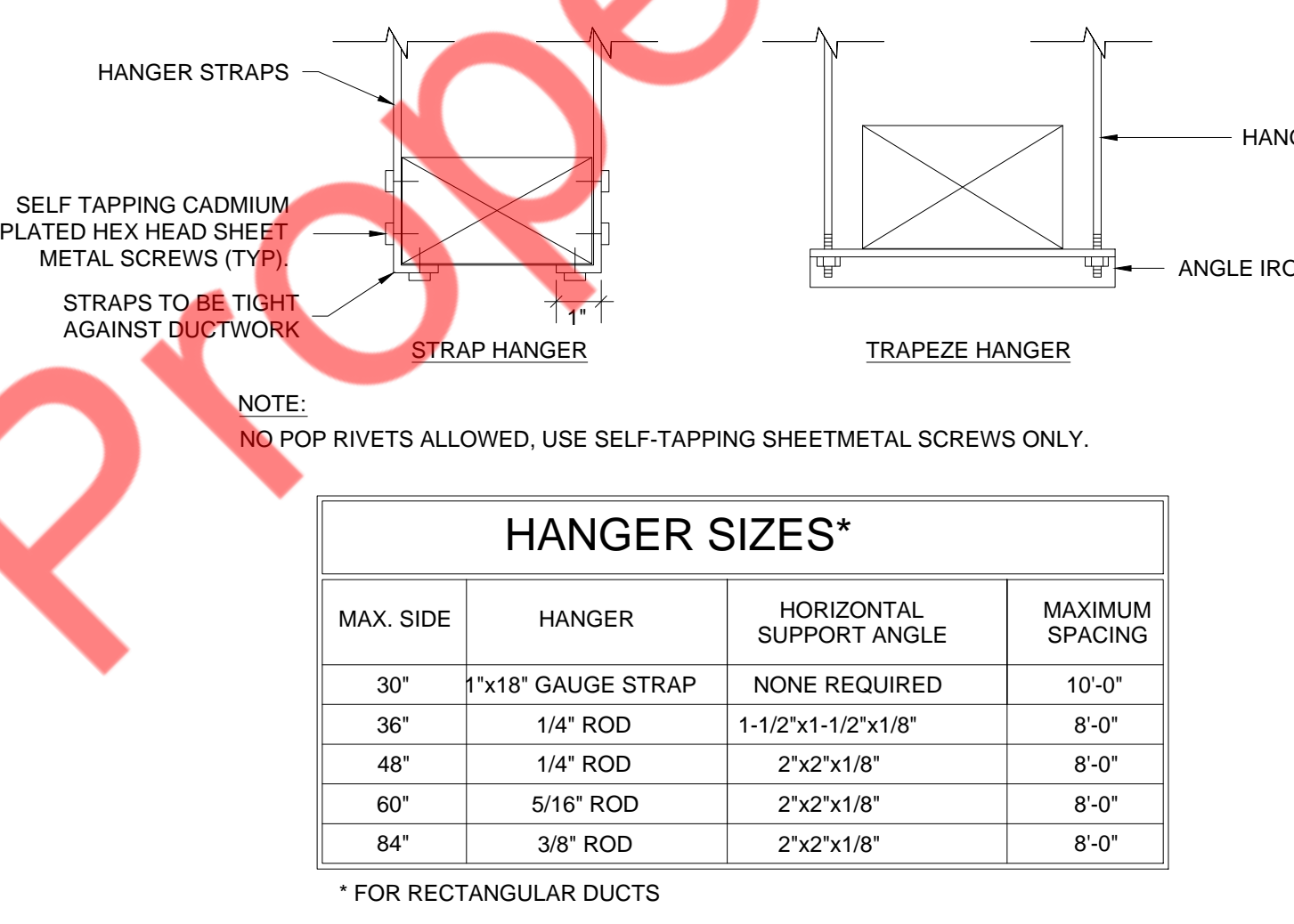
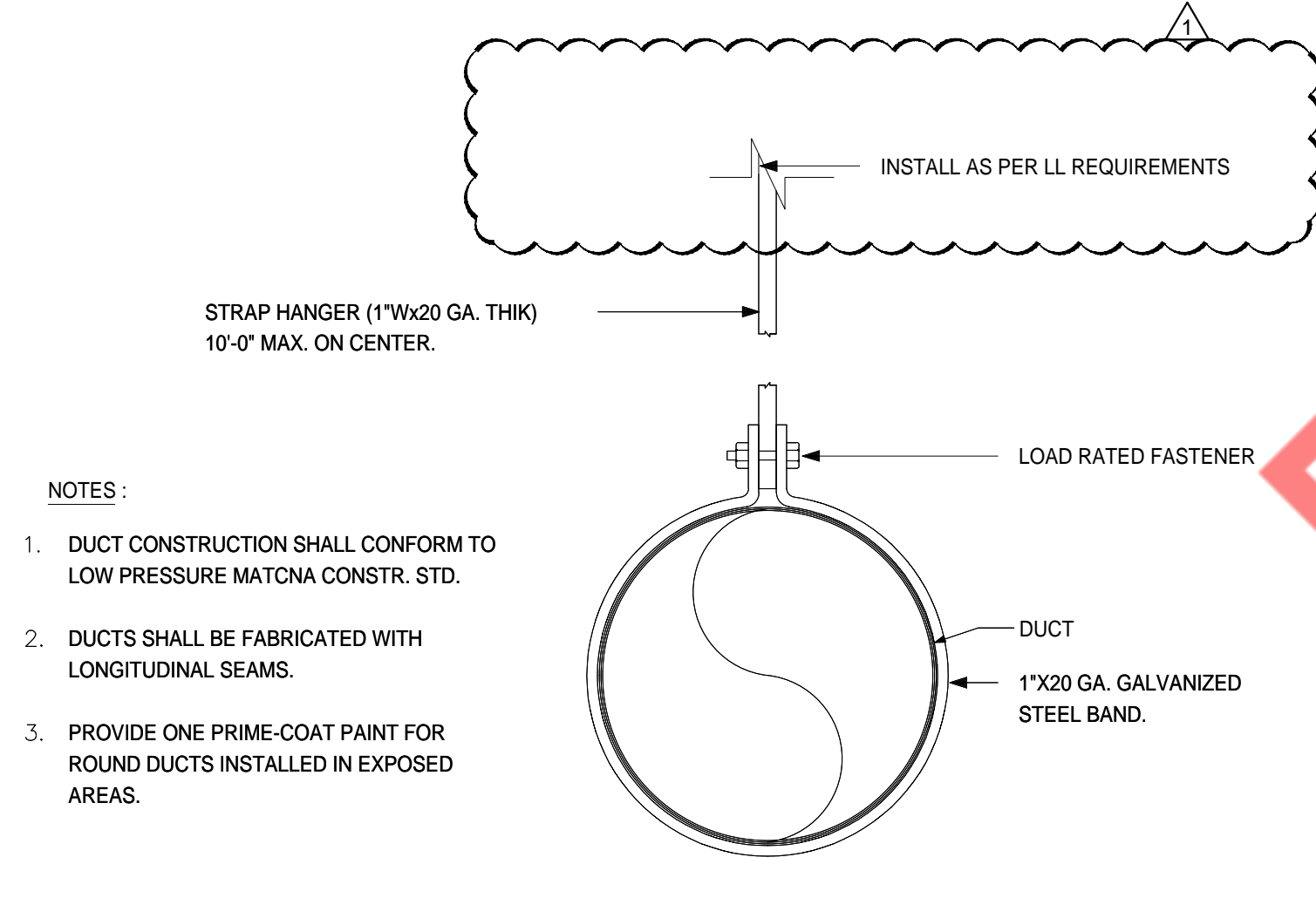


1 SCALE N.T.S. LOW VELOCITY DUCTWORK ELBOWS

2 SCALE N.T.S. STANDARD LINEAR DIFFUSER DETAIL

3 SCALE N.T.S. DUCT TAP AND VAV BOX DUCT CONNECTION

4 SCALE N.T.S. CEILING MOUNTED FAN



5 SCALE N.T.S. ROUND DUCT HANGING DETAILS

6 SCALE N.T.S. DUCT HANGING DETAILS

7 SCALE N.T.S. SUPPLY AIR DUCTWORK SUB-MAIN/BRANCH DUCT CONNECTION

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY ROWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET
12.22.25	LL & CLIENT COMMENTS
	REVISION

Kowan

LOCATION:

PROJECT INFORMATION:
PROJECT NUMBER: 13553-25
DRAWN BY: NYE
REVIEWED BY: NYE
AREA: 1,252 SQ. FT.

TITLE:
MECHANICAL DETAILS AND SCHEDULES

SHEET NUMBER:
M2.0

KEY NOTES

- 1 CONTRACTOR TO PROVIDE NEW CONTROL MODULE AND NEW VAV BOX AS PER SCHEDULE GIVEN ON SHEET M2.0 AND VERIFY COMPATIBILITY WITH EXISTING AIR CONDITIONING SYSTEM PRIOR TO PURCHASE. PROVIDE WIRING & CONTROLS TO INTEGRATE WITH CONTROL SYSTEM. COORDINATE ALL REQUIREMENTS WITH LL'S EMS SYSTEM.
- 2 CONNECT NEW BRANCH DUCT FROM THE VAV UNIT TO EXISTING LANDLORD PROVIDED MAIN SUPPLY DUCT. VERIFY EXACT POINT OF CONNECTION AND SIZE OF EXISTING DUCT IN FIELD. PROVIDE ADDITIONAL NECESSARY OFFSETS, TRANSITIONS AND BENDS AS REQUIRED FOR PROPER CONNECTION.
- 3 PROVIDE ACCESS DOOR FOR (N)VAV-1 AS PER MANUFACTURER SPECIFICATIONS.
- 4 RUN CONTROL WIRING FOR VAV FROM TEMPERATURE SENSOR TO THE CORRESPONDING THERMOSTAT IN THE BACK OF HOUSE AREA. PROVIDE ALL REQUIRED ACCESSORIES & CONTROLS. COORDINATE FINAL LOCATION OF THERMOSTAT WITH OWNER/ARCHITECT.
- 5 PROVIDE NEW TEMPERATURE SENSOR IN PUBLIC PIERCING AREA. COORDINATE WITH MANUFACTURER FOR ALL NECESSARY CONTROLS AS REQUIRED FOR THE (N)VAV-1. PROVIDE NECESSARY CONTROLS AND INSTALL AS PER MANUFACTURER RECOMMENDATIONS.
- 6 CONTRACTOR TO PROVIDE NEW 24X24 RETURN AIR TRANSFER OPENING WITH FIRE DAMPER. VERIFY THE FINAL LOCATION WITH ARCHITECT PRIOR TO BID.
- 7 PROVIDE 1" DOOR UNDERCUT FOR AIR TRANSFER AS SHOWN ON THE PLAN. COORDINATE WITH ARCHITECT.
- 8 CONTRACTOR TO PROVIDE NEW EXHAUST FAN AS SHOWN IN THE PLAN AND SCHEDULE. CONNECT TO THE EXISTING LANDLORD PROVIDED COMMON TOILET EXHAUST DUCT. ENSURE TERMINATION IS AS PER LOCAL CODE REQUIREMENTS. FIELD VERIFY EXHAUST DUCT CONNECTION POINT PRIOR TO BID.
- 9 EXISTING AIR TRANSFER OPENINGS IN DEMISING WALLS TO REMAIN. VERIFY EXACT LOCATION IN FIELD. PROVIDE ADDITIONAL OPENING AS REQUIRED. COORDINATE REQUIREMENTS WITH LANDLORD. PROVIDE 20SOFT MINIMUM FREE AIR OPENING WITH FIRE DAMPER IN DEMISING WALL OF ADJACENT TENANTS FOR ADEQUATE RETURN CFM.
- 10 PROVIDE 12"X8" DOOR GRILLE FOR AIR TRANSFER. COORDINATE WITH ARCHITECT FOR FINAL COLOR/FINISH.

Mechanical Comments:

*Any changes and/or upgrades to tenant's existing mechanical systems shall comply with all codes and Landlord criteria. Existing systems shall possess the capacity to handle any and all changes in load.

*No pitch pockets are permitted on the roof for any condensate drains, refrigerant piping, power or control wiring. All connections are to be made inside the equipment curb or through pre-manufactured piping curb.

*Nothing is permitted to be attached to, suspended from, or penetrate Landlord's structure, floor deck, or roof deck. You may attach, non-destructively, to or suspend from the top chord of the joist or the structural steel which exists above the tenant space. When attaching to landlord's structure, **do NOT drill, weld, screw, or shoot** into structure. Alternative methods of attachment ONLY, nothing to damage landlord's base building structure. Tenant shall provide signed and sealed structural drawings, by a structural engineer with legally active registration as indicated by all jurisdictional requirements, for all structural modifications for Landlord records.

*All penetrations to roof must be approved by Landlord. All related roof work MUST be done by mall's designated roofing contractor, at tenant's expense. Coordinate all work with Property Management on site.

*Tenant must remove all abandoned rooftop and/or mechanical equipment above the leased premises and within the leased premises, at tenant expense. Patch and repair roof as needed.

*Tenant's GC to label all roof top equipment with tenant name space number and equipment identification (RTU-1, EF-1), per mall specifications/ standards.

*All piping on roof shall be supported on pre-manufactured pipe supports installed on carry tread, spaced properly to support piping. Treated wood supports are not permitted.

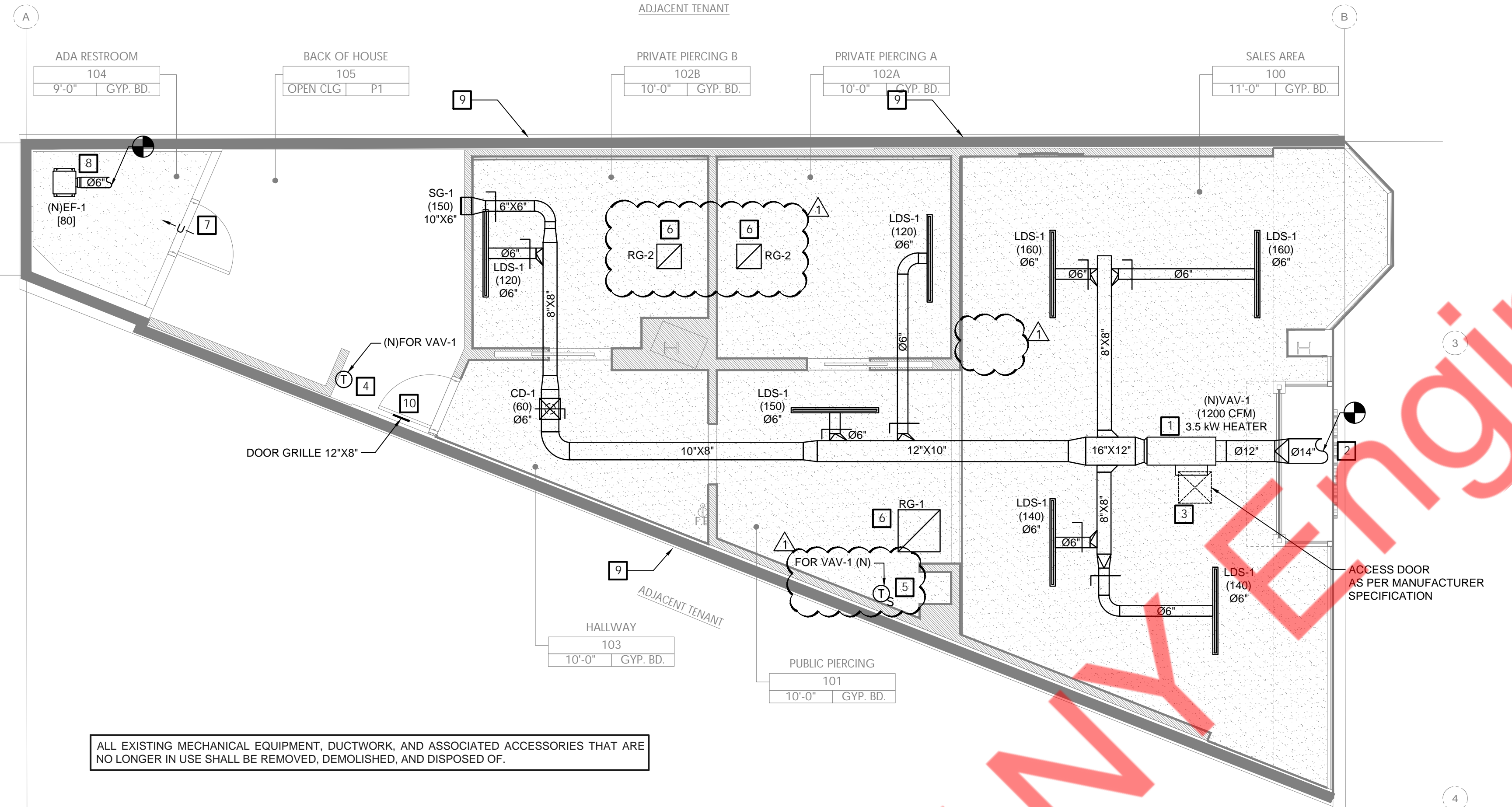
*All unexposed supply air and outside air ductwork shall be externally insulated with 1 1/2" thick foil face insulation. Internally lined ductwork may be used for acoustic purposes only, not as a substitute for external insulation.

*All ductwork shall be sheet metal. Flex duct may only be used in runs of 5'-0" or less and only permitted above grid or drywall ceilings.

*At conclusion of project, HVAC system must be tested and balanced by a licensed contractor. Copy of balance report must be provided to Property Management Office on-site.

*Landlord strongly prefers use of Energy Star products and/or equipment whenever possible during Tenant build out, which can reduce energy consumption.

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ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, AND ASSOCIATED ACCESSORIES THAT ARE NO LONGER IN USE SHALL BE REMOVED, DEMOLISHED, AND DISPOSED OF.

1 MECHANICAL FLOOR PLAN

GENERAL NOTES

1. DUCTWORK SHALL BE RUN ABOVE CEILING AS HIGH AS POSSIBLE IN GENERAL LOCATIONS SHOWN, BUT SHALL CONFORM TO ALL STRUCTURAL AND FINISH CONDITIONS OF BUILDINGS. COORDINATE WITH STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO ANY INSTALLATION.
2. LOCATE EQUIPMENT AND FIXTURES APPROXIMATELY AS SHOWN CONFORMING TO ALL ARCHITECTURAL AND STRUCTURAL ITEMS. PROVIDE ALL SUPPORTS, HANGERS AND OPENINGS AS REQUIRED FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL COORDINATE WITH ALL TRADES FOR CLEARANCES, AND EXACT LOCATIONS OF EQUIPMENT. ALL EQUIPMENT AND FIXTURES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN FULL ACCORDANCE WITH ALL APPLICABLE CODES.
3. CEILING MOUNTED AIR DEVICES SHALL BE APPROXIMATELY AS SHOWN FOR EXACT LOCATION AND FRAME MOUNTING TYPES. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN. EXTEND FLEX DUCTWORK FROM DIFFUSERS. INSTALL STRAIGHT AS POSSIBLE WITH LONG RADIUS BENDS AND CLAMPS TO BE USED AT BOTH ENDS.
4. DUCTWORK WITH TURNING VANES INSTALLED IN ALL ELBOWS OF SUPPLY AIR DUCTS. AIR EXTRACTORS AT ALL RECTANGULAR TAKE-OFFS, AND TWIST-IN TAP WITH MANUAL VOLUME DAMPER AT ALL ROUND BRANCH TAKE-OFFS TO AIR DEVICES.
5. BUILDING AIR SYSTEMS SHALL BE BALANCED PER DATA INCLUDED ON THE DRAWINGS TO ACHIEVE RELATIVE AIR VOLUMES AS INDICATED ON THE DRAWINGS AND SCHEDULED HEREIN. ALL DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INTERNAL DIMENSIONS.
6. WHERE SHOWN ON THE DRAWINGS, PROVIDE VOLUME DAMPERS WITH LOCKING QUADRANTS OR SPLITTERS WITH HINGE AND ROD THRU SIDE OF DUCT WITH SET SCREW. VOLUME DAMPER HANDLES SHALL BE INSTALLED ON THE BOTTOM OF THE SPIN-IN FITTING AND SHALL HAVE RING SET IN FULL OPEN POSITION.
7. ALL EXHAUST OUTLETS WILL BE A MINIMUM OF 10'-0" FROM ANY AIR INTAKE.
8. COORDINATE WITH FACILITY DIRECTOR FOR TYPE OF VARIABLE AIR VOLUME (VAV) TO PURCHASE IF AN ADDITIONAL OR REPLACEMENT IS NEEDED. THE TERMINAL BOX(S) AND TEMPERATURE SENSOR(S) WILL BE COORDINATED BETWEEN THE TENANTS HVAC CONTRACTOR.
9. CONTRACTOR TO PROVIDE COORD OPERATED DAMPERS IN INACCESSIBLE CEILINGS. COORDINATE WITH ALL TRADES FOR MATERIALS IN RATED AND PLENUM SPACES.
10. ALL DUCTWORK SHALL BE SHEET METAL. FLEX DUCT MAY ONLY BE USED IN RUNS OF 5'-0" OR LESS.
11. 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/ROOFS.
12. ALL INTERIOR WALL SHOULD STOP AT CEILING LEVEL OR WALL OPENING SHALL BE PROVIDED FOR RETURN AIR TRANSFER TYPICAL FOR ALL.

BIDDING NOTES

1. DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.
3. BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOTWITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

MALL CRITERIA NOTES

1. TENANT GENERAL CONTRACTOR SHALL VERIFY TRANSFER AIR OPENINGS EXIST AND MEET MALL CRITERIA FOR VAV/HVAC COMPLIANCE.
2. TENANT GENERAL CONTRACTOR TO CONTACT MALL OPERATIONS TO VERIFY VAV CONTROLS MEET ALL CURRENT MALL HVAC CRITERIA AND INTERFACE WITH ALL CURRENT BMS SYSTEM.
3. AT CONCLUSION OF PROJECT, HVAC SYSTEM MUST BE TESTED AND BALANCED BY LANDLORD APPROVED CONTRACTOR. COPY OF BALANCE REPORT MUST BE PROVIDED TO PROPERTY MANAGEMENT OFFICE ON-SITE.
4. ALL DUCTWORK SHALL BE SHEET METAL; EXTERNALLY INSULATED FLEX DUCT MAY ONLY BE USED IN RUNS OF 5'-0" OR LESS MAY BE USED FOR VERTICAL CONNECTIONS TO SUPPLY DIFFUSERS ONLY.
5. EXTERNAL FOIL WRAP INSULATION IS MANDATORY FOR ALL SUPPLY AIR DUCT WORK IN CLOSED CEILING AREAS.
6. TENANT SHALL EMPLOY A TAB, NEBB OR AABC CERTIFIED AIR BALANCE CONTRACTOR TO PERFORM FINAL AIR TESTING AND BALANCING.

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY ROWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET

12.22.25 LL & CLIENT COMMENTS

DATE REVISION



LOCATION:

PROJECT INFORMATION:

PROJECT NUMBER: 13553-25
DRAWN BY: NYE
REVIEWED BY: NYE
AREA: 1,252 SQ. FT.

TITLE:

MECHANICAL FLOOR PLAN

SHEET NUMBER:

M3.0

PLUMBING SPECIFICATIONS

1. GENERAL

THE "ARCHITECTURAL GENERAL CONDITIONS" GOVERN WORK UNDER THIS SECTION.

BEFORE SUBMITTING A PROPOSAL, THIS CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS. IT IS EXPRESSLY UNDERSTOOD THAT THIS PROPOSAL IS BASED ON THE ABOVE REQUIREMENTS AND THAT IT COVERS EVERYTHING NECESSARY TO DO AND COMPLETE THE WORK.

2. INSPECTION AND COOPERATION

NO DEVIATION FROM THE DRAWINGS AND/OR SPECIFICATIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT OR ENGINEER. THIS CONTRACTOR SHALL COOPERATE WITH THE OTHER CONTRACTORS TO ALLOW FOR THE INSTALLATION OF THEIR WORK AS WELL AS HIS OWN.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK FITTING IN PLACE WITHOUT CONFLICT WITH THE OTHER TRADES, WHERE PROPER PLANNING COULD AVOID INTERFERENCE.

3. CODES AND PERMITS

NOTHING IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL BE INTERPRETED TO CONFLICT WITH ANY CITY OR PROVINCIAL LAW, REGULATION, CODE, ORDINANCE, RULING, OR FIRE UNDERWRITERS REQUIREMENT APPLICABLE TO THIS CLASS OF WORK.

SHOULD THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH SUCH LAWS OR ORDINANCES, THE CONFLICTING PORTION OF THE WORK SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH SUCH LAWS AND ORDINANCES WITHOUT EXTRA COST.

THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THIS INSTALLATION OF HIS WORK.

4. ACCURACY OF DATA

THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED BUT ITS EXTREME ACCURACY IS NOT GUARANTEED. THIS CONTRACTOR SHALL EXAMINE THE LOCATIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS AND EXISTING PIPE SIZES BEFORE STARTING THE WORK AS ALL PIPING SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC ONLY.

THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, RAISED AND DROPS IN PIPING AND DUCTWORK AS REQUIRED BY BUILDING CONDITIONS AT NO ADDITIONAL COST.

MECHANICAL DRAWINGS SHALL NOT BE USED FOR GENERAL CONSTRUCTION DIMENSIONS OR FOR TYPE OF MATERIAL USED, FOR EXACT BUILDING LAYOUT, DIMENSIONS AND BUILDING MATERIAL USED, THIS CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS.

5. SHOP DRAWINGS

SHOP OR INSTALLATION DRAWINGS, FOUNDATION PLANS, EQUIPMENT OR APPARATUS DRAWINGS SHALL BE FURNISHED BY THIS CONTRACTOR. THESE DRAWINGS SHALL BE CLEARLY MARKED INDICATING WHICH ITEMS ARE TO BE SUPPLIED AND SHALL STATE CAPACITIES, SIZES AND GENERAL DESCRIPTION OF ALL EQUIPMENT. ANY CHANGES FROM THE SPECIFIED ITEMS SHALL BE NOTED ON THE SUBMITTALS.

SHOP DRAWINGS OF SPECIAL APPARATUS OR EQUIPMENT WHICH IS TO BE FABRICATED INDIVIDUALLY FOR THIS PROJECT AND IS NOT DESCRIBED BY STANDARD MANUFACTURER'S DRAWINGS OR BULLETINS SHALL BE SUBMITTED FOR PROCESSING BEFORE FABRICATION.

THESE DRAWINGS SHALL BE SUBMITTED IN A TIMELY MANNER.

IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO MAINTAIN LIAISON WITH ALL PARTIES CONCERNED WITH THE MATERIAL SUBMITTED. THIS CONTRACTOR SHALL NOT PURCHASE ANY EQUIPMENT UNTIL SHOP DRAWINGS HAVE BEEN PROCESSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FEES ACCRUED FROM THE RETURN OF FIXTURES PURCHASED PRIOR TO THE REVIEW OF SHOP DRAWINGS AND THAT ARE NOT APPROVED.

THIS CONTRACTOR SHALL SUBMIT NO DRAWINGS WITHOUT NOTATION INDICATING DATE OF CONTRACTOR'S REVIEW AND SIGNATURE OF CHECK FOR CONTRACTOR TOGETHER WITH CONTRACTOR'S NAME AND PROJECT IDENTIFICATION.

ARCHITECT'S PROCESSING WILL NOT CONSTITUTE A COMPLETE CHECK BUT WILL INDICATE THAT GENERAL METHOD OF CONSTRUCTION AND DETAILING IS SATISFACTORY.

ARCHITECT'S PROCESSING WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS SINCE THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS AND DESIGNS OF ADEQUATE CONNECTIONS, DETAILS AND SATISFACTORY CONSTRUCTION OF ALL WORK, AS WELL AS FURNISHING MATERIALS AND WORKMANSHIP REQUIRED BY DRAWINGS AND SPECIFICATIONS WHICH MAY NOT BE INDICATED ON THE SUBMITTALS WHEN APPROVED.

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING ENGINEER REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR: EQUIPMENT VOLTAGES AND DIMENSIONS TO BE CONFIRMED AND CORRELATED WITH ALL DISCIPLINES PRIOR TO PURCHASE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

6. SUBSTITUTIONS OF EQUIPMENT OR MATERIAL

THE BRAND NAMES OF EQUIPMENT OR MATERIALS SPECIFIED HEREIN SHALL ESTABLISH QUALITY, CAPACITY, TYPE AND DIMENSIONS TO BE INCLUDED IN THE BASE BID.

APPROVAL OF SUBSTITUTED ITEMS WILL BE BASED ON ABILITY AND CAPACITY TO PERFORM FUNCTION SERVED, QUALITY AND AVAILABILITY OF PARTS AND SERVICE, QUALITY OF EQUIPMENT, DELIVERY SCHEDULE, ETC. THE ARCHITECT SHALL REVIEW ALL SUCH REQUESTS BUT RESERVES THE SOLE RIGHT OF JUDGEMENT TO APPROVE OR REJECT THE PROPOSED SUBSTITUTIONS.

ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL NOT CAUSE ADDITIONAL COST. ANY CHANGES OF PIPING, DUCTWORK, ELECTRICAL CONTROLS OR INSTALLATION REQUIRED BECAUSE OF THE SUBSTITUTION OR EQUIPMENT SHALL BE PAID FOR BY THIS CONTRACTOR PROPOSING THE SUBSTITUTION.

7. ERECTION OF APPARATUS

ALL WORK SHALL BE DONE UNDER THE PERSONAL SUPERVISION OF THIS CONTRACTOR WHO SHALL PROVIDE A COMPETENT FOREMAN TO LAY OUT ALL WORK. ALL WORK SHALL BE LAID OUT WITH DUE REGARD FOR THE SPACE REQUIREMENTS OF THE OTHER CONTRACTORS. THIS CONTRACTOR SHALL REPORT ANY CONFLICTS OR DIFFICULTIES IN REGARD TO THE INSTALLATION IMMEDIATELY.

WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, THIS CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATIONS OF PIPES, DUCT, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES, SHALL BE APPROVED BY ARCHITECT AND ENGINEER BEFORE INSTALLATION OF THE WORK.

EQUIPMENT OF A TYPE TO BE REQUIRED REPLACEMENT, SERVICING, ADJUSTING OR MAINTENANCE SHALL BE LOCATED TO ALLOW EASY ACCESS AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES, IF REQUIRED.

8. EXCAVATION AND BACKFILL

THIS CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED TO INSTALL PIPES AND EQUIPMENT SHOWN ON THE PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITIES SERVICES LINES SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE BACKFILLING.

INSTALL PLASTIC PIPE AND FITTINGS IN STRICT ACCORDANCE WITH THE INSTALLATION RECOMMENDATIONS OF THE PIPE AND FITTINGS MANUFACTURER. APPENDIX XI OF ASTM D2265 (STORAGE AND INSTALLATION PROCEDURES FOR PLASTIC DRAIN, WASTE, AND VENT PIPING) AND FOR BURIED PIPE ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS), SUCH INSTRUCTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO CUTTING, SOLVING, CEMENTING AND PRIMING JOINTS, CONNECTIONS, TRANSITIONS, ALIGNMENT AND GRADE, TRENCHING, BEDDING, BACKFILL AND COMPACTION, SUPPORTS AND SPACING AND ALLOWANCE FOR THERMAL EXPANSION.

CAST IRON PIPING TRENCHING SHALL BE IN ACCORDANCE TO THE CAST IRON SOIL PIPE AND FITTINGS HANDBOOK ISSUED BY THE CAST IRON SOIL PIPE INSTITUTE.

THE BOTTOM OF TRENCHES SHALL BE TAMPED HARD AN GRADED TO SECURE THE REQUIRED FALL. ROCK, WHERE ENCOUNTERED SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE, AND BEFORE THE PIPE IS LAID, THE SPACE BETWEEN BOTTOM PIPE AND ROCK SURFACE SHALL BE FILLED WITH GRAVEL. IF TRENCHES ARE DEEPER THAN BOTTOM OF FLOORING OR CLOSER THAN THREE FEET (3') TO FOOTING THEY MUST BE FILLED WITH COHESIVE SOIL, AND COMPACTED TO 95% OF MAXIMUM DENSITY STANDARD PROCTOR, ASTM D-698. ALL OTHER EXCAVATIONS UNDER FLOOR SLABS COMPACTED TO 95% STANDARD PROCTOR.

WHEN EXCESS DIRT HAS BEEN REMOVED, THE TRENCH SHALL BE BROUGHT TO THE REQUIRED LEVEL WITH SAND AND GRAVEL FIRMLY COMPACTED.

TRENCHES AND EXCAVATION SHALL BE BACKFILLED IN 6" LAYERS OF EARTH, FREE FROM CLODS, AND STONES THOROUGHLY TAMPED TO A DEPTH OF 12" ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS, THOROUGHLY TAMPED.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO ANY DAMAGES OR STABILIZE THE PIPING SYSTEMS THAT OCCUR FROM THE IMPROPER EXCAVATION AND BACKFILL METHODS.

9. EQUIPMENT SUPPORTS

ANY STRUCTURAL STEEL MEMBERS REQUIRED TO ADAPT THE EQUIPMENT AND PIPING AS FURNISHED BY THIS CONTRACTOR, TO THE BUILDING STEEL OR STRUCTURE, SHALL BE INCLUDED IN THE BIDDING. THE CONTRACTOR FURNISHING THE EQUIPMENT OR PIPING, HANGING OF ALL EQUIPMENT AND REQUIRED SUPPORTING STEEL AND BRACING SHALL BE FURNISHED BY THE CONTRACTOR WHO SUPPLIES THE EQUIPMENT.

10. CUTTING AND PATCHING

THIS CONTRACTOR SHALL INCLUDE ALL CUTTING, PATCHING AND PAINTING OF PATCHED AREAS REQUIRED FOR AND RESULTING FROM THE INSTALLATION OF ALL OF THIS CONTRACTOR'S WORK, EXCEPT WHERE NOTED OTHERWISE.

ALL OPENINGS AROUND PIPE PENETRATIONS THROUGH SMOKE OR FIRE-RATED FLOORS, CEILINGS OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIAL HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING AND/OR FLOOR PENETRATED.

ALL PATCHING SHALL BE NEATLY FINISHED TO THE SATISFACTION OF THE ARCHITECT.

11. ACCESS PANELS

THIS CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY THE GENERAL CONTRACTOR, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THE CONTRACT.

ALL PANELS SHALL BE MILCOR, STYLE "M" FOR MASONRY, "A" FOR ACOUSTICAL TILE AND "K" FOR PLASTER; EXCEPT FOR FIRE-RATED UL 1-1/2 HOUR AND "B" LABEL ACCESS PANELS SHALL BE FURNISHED IN FIRE-RATED WALLS AND CEILINGS AS INDICATED ON THE DRAWINGS. ACCESS DOORS SHALL BE 12" X 12" MINIMUM SIZE FOR VALVES.

12. DIELECTRIC UNIONS

FOR THE PREVENTION OF ELECTROLYTIC CORROSION AT CONNECTIONS BETWEEN PIPE OF DISSIMILAR METALS OR BETWEEN PIPE AND EQUIPMENT CONNECTIONS OF DISSIMILAR METALS, PROVIDE DIELECTRIC UNIONS OR FLANGES.

13. MOTORS, STARTERS AND DISCONNECTS

UNLESS SPECIFIED TO BE FURNISHED WITH EQUIPMENT, ALL MOTOR STARTERS AND DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

14. JOINTS AND FITTINGS

THREADS ON SCREWED PIPE SHALL BE STANDARD, CLEAN BUTT AND TAPERED. PIPE SHALL BE REAMED OF BURRS AND KEPT CLEAN OF SCALE, DIRT AND SHAVINGS. TREADS SHALL BE MADE WITH FLAKED GRAPHITE AND LUBRICATING OIL OR APPROVED PIPE COMPOUND ON THE MALE THREAD ONLY.

COPPER-TO-STEEL AND COPPER-TO-BRASS JOINTS SHALL BE MADE WITH SILVER SOLDER. ALL OTHER COPPER-TO-COPPER JOINTS ABOVE GROUND SHALL BE MADE WITH LEAD FREE SOLDER. COPPER PIPE SHALL BE CUT SQUARE, BURRS REMOVED AND CARE SHALL BE GIVEN TO KEEP THE LINES FREE OF DIRT AND MOISTURE. ALL TUBING AND FITTINGS SHALL BE THOROUGHLY CLEANED.

WELDED PIPE SHALL HAVE BUTT WELDED SINGLE "V" TYPE JOINTS FOR WHICH PIPE HAS BEEN BEVELED TO 45 DEGREES. WELD SHALL BE ONE-FOURTH GREATER THICKNESS THAN THE PIPE. JOINTS TO EQUIPMENT, ACCESSORIES, ETC. SHALL BE MADE BY MEANS OF FLANGES AND/OR ADAPTERS.

UNIONS SHALL BE PROVIDED AT EACH SCREWED VALVE AND UNIONS OR FLANGES AT EACH EQUIPMENT CONNECTION.

15. EXPANSION JOINTS

FURNISH AND INSTALL FLEXONICS EXPANSION JOINTS IN PIPING SYSTEM WHERE SHOWN OR NECESSARY FOR EXPANSION AND CONTRACTION.

EXPANSION JOINTS IN PIPE 4" AND GREATER SHALL BE THE PACKLESS TYPE WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR: EQUIPMENT VOLTAGES AND DIMENSIONS TO BE CONFIRMED AND CORRELATED WITH ALL DISCIPLINES PRIOR TO PURCHASE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

EXPANSION JOINTS IN STEEL PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL ELBOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES. EXPANSION JOINTS IN COPPER PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL ELBOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

PROVIDE GUIDES ON EACH SIDE OF EXPANSION JOINT, AT 4 PIPE DIAMETERS, 14 PIPE DIAMETERS, AND A THIRD GUIDE AS RECOMMENDED BY THE MANUFACTURER.

16. PIPE FLEXIBLE CONNECTIONS

FLEXIBLE PIPE CONNECTIONS SHALL BE RESISTOFLEX #R6904 OR APPROVED EQUAL FLEXIBLE CONNECTIONS MADE FROM TEFLON.

PROVIDE FOR MOVEMENT IN PIPING BY USE OF SWING JOINTS AT CONNECTION OF ALL BRANCHES TO MAINS AND RISERS. ALL BRANCHES FROM MAINS AND RISERS SHALL HAVE 1/4" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE TO PERMIT PIPE MOVEMENT.

17. VALVES

THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL VALVES OF ONE MANUFACTURER, FIGURE NUMBER AND TYPE THROUGHOUT THE ENTIRE INSTALLATION OF THE WORK, UNLESS OTHERWISE SPECIFIED. THE FOLLOWING NUMBERS ARE FROM THE CRANE CATALOG. EQUAL VALVES OF REPUTABLE MANUFACTURERS, SUCH AS HAMMOND, NIBCO-SCOTT AND/OR JENKINS WILL BE CONSIDERED EQUIVALENT.

ALL VALVES SHALL BE BUILT FOR A MINIMUM OF 125 PSIG WORKING PRESSURE.

ISOLATION VALVES SHALL BE PROVIDED ON ALL INDIVIDUAL FIXTURES AND FIXTURE GROUPS.

CHECK VALVES 2-1/2" AND SMALLER SHALL BE #36 (SCREWED ENDS) OR #1342 (SOLDER-JOINT ENDS) SWING-TYPE WITH BRONZE BODY AND BRONZE TRIM.

BUTTERFLY VALVES 2" AND LARGER SHALL BE #12F, IRON BODY, CAST-IRON WAFER W/LOCK LEVER.

BALL VALVE UP TO 3" IN SIZE SHALL BE APOLLO SERIES #70 BRONZE VALVE WITH CHROME-PLATED BALL AND TEFLON SEAT.

GAS LINE COCKS UP TO 4" SHALL BE #320, 1/2 PSI FOR INDOOR APPLIANCE CONNECTIONS SHALL CONFORM TO ANSI Z21.15 AND CSA 91.5 PSI FOR INDOOR SHUT OFF SHALL CONFORM TO CGA 91-002 AND ASME B16.44

HOSE END VALVES SHALL BE #438 GATE VALVES WITH HOSE END NIPPLES.

18. PIPE SLEEVES AND COLLARS

THIS CONTRACTOR SHALL LAYOUT ALL HIS WORK AND SET SLEEVES IN NEW CONSTRUCTION AS CONCRETE FORMS AND WALL ARE ERECTED SO AS TO BE ABLE TO INSTALL HIS WORK WITHOUT CUTTING OR BREAKING OF FLOORS OR WALLS. ALL SLEEVES FOR INSULATED PIPING SHALL BE LARGE ENOUGH TO ALLOW INSULATION TO PASS THROUGH SLEEVE.

ALL SLEEVES PASSING THROUGH FLOORS WHICH ARE WATERPROOFED SHALL BE COPPER TUBING SLEEVES EXTENDING 1" ABOVE FINISHED FLOOR. ALL OTHER SLEEVES SHALL BE 24 GAUGE GALVANIZED PIPES AND SLEEVES TO BE THOROUGHLY PACKED

WITH WATERPROOF SEALANT AND THE REMAINING SPACE FILLED WITH MASTIC AND MUST BE WATERTIGHT.

ALL SLEEVES PASSING THROUGH INNER WALLS SHALL BE STANDARD PIPE THIMBLES EQUAL TO THE THICKNESS OF THE WALL.

SPACES BETWEEN PIPES AND SLEEVES THROUGH OUTSIDE WALLS, ABOVE GRADE, SHALL BE CAULKED WITH CAULKING COMPOUND; THOSE BELOW GRADE SHALL BE MADE WATERTIGHT.

SPACE AROUND ALL PIPING THROUGH FIRE OR SMOKE RATED PARTITIONS OR FLOORS SHALL BE SEALED AIRTIGHT WITH MATERIALS OR EQUIPMENT AS SPECIFIED UNDER FIRESTOPPING.

ALL PIPE PENETRATIONS OF SLABS ON GRADE SHALL BE WRAPPED WITH #15 BUILDING FELTS OR FOAM WRAP.

19. HANGERS

A. HANGER AND SUPPORT PRODUCTS INSTALLATION
a. VERTICAL PIPING: MSS TYPE 8 OR 42 CLAMPS
b. INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS: 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVIS HANGERS. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS. LONGER THAN 100 FEET IF INDICATED: MSS TYPE 49, SPRING CUSHION ROLLS
c. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER: MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON TRAPEZE
d. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.

B. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH FLOOR.
C. ROD DIAMETER MAY BE REDUCED ONE SIZE FOR DOUBLE-ROD HANGERS, TO A MINIMUM OF 3/8 INCH.
D. INSTALL HANGERS FOR ALL PIPING PER MSS SP-69, MANUFACTURERS MANUALS AND AS PER HANGER SUPPORT DETAIL ON DRAWINGS
E. INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET.
F. INSTALL SUPPORTS FOR VERTICAL STEEL PIPING EVERY 15 FEET
G. SUPPORT PIPING AND TUBING NOT LISTED IN THIS ARTICLE ACCORDING TO MSS SP-69 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

20. DAMAGE BY LEAKS

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE GROUNDS, WALKS, ROADS, ALL BUILDING COMPONENTS AND FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS AND THEIR EQUIPMENT AND CONTENT, CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED HEREIN. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

21. PIPE MARKERS

FURNISH AND INSTALL BRADY #B-350 THIN FILM OR APPROVED EQUAL PIPE MARKERS. MARKERS SHALL BE 1-1/8" HIGH FOR 3" AND UNDER AND 2-1/4" HIGH FOR PIPES OVER 3". MARKERS SHALL INDICATE TYPE OF SERVICE AND DIRECTION OF FLOW.

PIPE MARKERS SHALL BE LOCATED:

- AT EQUIPMENT CONNECTIONS
- AT ACCESS DOORS
- AT BRANCHES TO EQUIPMENT
- ON ALL ACCESSIBLE PIPE A MAXIMUM OF 75' BETWEEN MARKERS.
- AT ALL PENETRATIONS ON EITHER SIDE OF PENETRATION

22. FLOOR, WALL AND CEILING PLATES

PIPES PASSING THROUGH FLOORS AND FINISHED CEILINGS, FITTED WITH CHROME-PLATED PLATES OR ESCUTCHEONS LARGE ENOUGH TO COMPLETELY CLOSE OPENING AROUND PIPE OR PIPE COVERING AND FLOOR SUPPORT IN THE CASE OF VERTICAL PIPING, SECURELY HELD IN PLACE, CAULK WATERTIGHT AROUND PIPE IN UNFINISHED ROOMS.

23. FIRE STOPPING

THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS OR FLOORS SHALL BE PROTECTED BY A UL APPROVED MATERIAL TO RETAIN THE INTEGRITY OF THE TIME-RATED CONSTRUCTION BY MAINTAINING AS EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE AND GASES. IT SHALL BE USED IN ALL DUCT CABLE, CONDUIT AND PIPING PENETRATIONS THROUGH FLOOR SLABS AND TIME-RATED WALLS, AND/OR FLOORS. THE RATING OF THE FIRESTOPPING SHALL EQUAL THE RATING OF THE TIME-RATED ASSEMBLY.

FIRESTOPPING MATERIAL SHALL BE 3M FIRE BARRIER SEALING SYSTEM OF APPROVED EQUAL FIRESTOPPING MATERIAL SHALL CONSTITUTE ONE OR MORE OF THE FOLLOWING PRODUCTS:

- CAULK: CP-25
- PUTTY: #303
- WRAP/STRIP: FS195
- COMPOSITE SHEET: CS195
- PENETRATING SEALING SYSTEMS: 7900 SERIES

INSTALLATION OF FIRESTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH AND IN STRICT ACCORDANCE WITH MANUFACTURERS PRINTED INSTRUCTIONS AS TO SURFACE PREPARATION, INSTALLATION AND QUALITY CONTROL. AREAS OF WORK SHALL REMAIN ACCESSIBLE UNTIL INSPECTION AND APPROVAL BY THE APPLICABLE CODE AUTHORITIES.

ON INSULATED PIPES, THE FIRE-RATING CLASSIFICATION SHALL NOT REQUIRE REMOVAL OF THE INSULATION.

QUALITY ASSURANCE: SUBMIT MANUFACTURER'S PRODUCT DATA, LETTER OF CERTIFICATION OR CERTIFIED LABORATORY TEST REPORT THAT THE MATERIAL OR COMBINATION OF MATERIALS MEET THE REQUIREMENTS SPECIFIED IN ASTM E814 AND ARE SO CLASSIFIED IN UL'S BUILDING MATERIALS DIRECTORY. MATERIALS SHALL MEET AND BE ACCEPTABLE FOR USE BY ALL MODEL BUILDING CODES. MATERIALS SHALL MEET THE REQUIREMENTS OF

SUBMITTALS:

SUBMIT SHOP DRAWINGS, PRODUCT DATA, CERTIFICATES AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUBMIT MANUFACTURER'S PRODUCT DATA FOR ALL MATERIALS AND PREFABRICATED DEVICES, PROVIDING DESCRIPTIONS SUFFICIENT FOR IDENTIFICATION AT THE JOB SITE. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.

SUBMIT SHOP DRAWINGS SHOWING PROPOSED MATERIAL, REINFORCEMENT, ANCHORAGE, FASTENINGS, AND METHOD OF INSTALLATION. CONSTRUCTION DETAILS SHALL ACCURATELY REFLECT ACTUAL JOB CONDITIONS.

24. CLEANUP AND ADJUSTMENT

ALL PARTS WORK LEFT CLEAN: EQUIPMENT, FIXTURES, VALVES, PIPES AND FITTINGS CLEANED OF GREASE AND METAL CUTTINGS. ANY DISCOLORATION OR OTHER DAMAGE TO PORTIONS OF BUILDING, ITS FINISH OR FURNISHING DUE TO THIS CONTRACTOR'S FAILURE TO PROPERLY CLEAN INTERIOR OF PIPING, REPAIRED AT THIS CONTRACTOR'S EXPENSE. ALL AUTOMATIC CONTROL DEVICES ADJUSTED FOR PROPER OPERATION. ALL SURPLUS MATERIALS AND ANY RUBBISH REMOVED AS IT ACCUMULATES. ALL EQUIPMENT LEFT IN SAFE, PROPER OPERATING CONDITION.

DAMAGE TO ANY PORTIONS MUST BE REPAIRED OF THE PART REPLACED BY THIS CONTRACTOR AND ALL PARTS LEFT WITHOUT DENTS, SCRATCHES, THROUGH THE FINISH PAINT, LOOSE PLASTER, STAINS OR OTHER BLEMISHES.

25. PIPE TESTING AND START-UP

ALL PIPING TO BE TESTED IN ACCORDANCE WITH THE FOLLOWING:
• WATER - 100 PSI WATER PRESSURE
ALL TESTING MUST HOLD FOR AT LEAST 24 HOURS WITHOUT LOSS OF PRESSURE OR VACUUM. ALL CONCEALED PIPING SHALL BE TESTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO COVERING BEFORE STARTING ANY SYSTEM, ALL EQUIPMENT SHALL BE LUBRICATED PER MANUFACTURERS REQUIREMENTS BY THIS CONTRACTOR. TEST ENTIRE BUILDING SYSTEMS UNDER FULL LOAD CONDITIONS FOR A PERIOD OF NOT LESS THAN ONE (1) WEEK DURING WHICH TIME THE OPERATING PERSONNEL SHALL BE FULLY INSTRUCTED IN THE OPERATION AND MAINTENANCE OF THE PLANT. AFTER THE PLANT IS IN FULL OPERATION, THIS CONTRACTOR IS TO FURNISH WHATEVER ADDITIONAL SERVICE IS REQUIRED TO RECALIBRATE AND RESET CONTROLS, VALVES, BALANCING COCKS, ETC. TO ENSURE PROPER OPERATION OF THIS SYSTEM.

26. TESTING AND BALANCING

THIS CONTRACTOR SHALL AT THE TIME OF INSTALLATION ENSURE THAT ALL DEVICES TO COMPLETE TESTING AND BALANCING AS DIRECTED HEREIN ARE FURNISHED AND INSTALLED DURING FABRICATION AND INSTALLATION OF WORK. THIS WORK SHALL BE PERFORMED PRIOR TO TURNOVER TO BUILDING OCCUPANT AND WITH AMPLE TIME TO MAKE ANY NECESSARY REPAIRS OR CHANGES TO ACHIEVE A PROPERLY OPERATING SYSTEM. GUARANTEE 27. THIS CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, MATERIALS, AND LABOR FURNISHED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND SHALL REPAIR OR REPLACE ANY EQUIPMENT OR MATERIAL WHICH IS

DEFECTIVE OR IMPROPERLY INSTALLED. IN ADDITION, THIS CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDINGS AND ITS CONTENTS OR TO OTHER EQUIPMENT, CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIALS INSTALLED UNDER THIS SECTION OF THE SPECIFICATIONS.

27. DOMESTIC WATER SERVICE

THIS CONTRACTOR SHALL COORDINATE EXACT AVAILABLE DELIVERY PRESSURE AND PROVIDE ALTERNATE FEE FOR A PRESSURE BOOSTING SYSTEM IF PRESSURE IS LESS THAN 65PSI STATIC. PROVIDE PRESSURE REDUCING VALVE WITH STRAINER IN SERVICE LINE IF REQUIRED BY LOCAL CODES OR PRESSURE IS ABOVE 80 PSI.

JOINTS SHALL BE CLEANED AND DEBURRED AS RECOMMENDED BY THE MANUFACTURER AND FEDERAL, STATE, AND LOCAL CODES AND PRESS FITTINGS ARE AN ACCEPTABLE IF THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS, THOROUGHLY TAMPED.

ABOVE GRADE - WHERE FITTINGS ARE SOLDERED BOTH FITTINGS AND TUBING SHALL BE CLEANED AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS COME INTO DIRECT CONTACT WITH COPPER TUBING; E.G., GALVANIZED STRAPPING, HANGERS, OR CLAMPS TO SECURE THE TUBING.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - HIGH TEMPERATURE, SOLDER, 1200 DEG. F. OR GREATER MELTING POINT.

NOTE: WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING (MALE AND FEMALE) SURFACES OF THE UNIONS.

MATERIALS - UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPER MATERIALS - ABOVEGROUND: TYPE "L" COPPER TUBE, HARD DRAWN ALTERNATE MATERIALS - CPVC PIPING IS AN ACCEPTABLE ALTERNATE IF NOT INSTALLED IN A PLENUM AND APPROVED BY LOCAL CODE OFFICIALS.
VIEGA: PROGRESS COPPER 1/2-INCH THROUGH 4-INCH WITH EPDM SEALING ELEMENT AND/OR VIEGA, PROGRESS 3/4 OR 3/8 STAINLESS #4000 THROUGH 4-INCH WITH EPDM OR FKM SEALING ELEMENT IS ACCEPTABLE IF ALLOWED BY LOCAL CODE.

28. STERILIZATION OF DOMESTIC WATER SYSTEM

THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE FLUSHED CLEAR OF ANY DEBRIS AND THOROUGHLY STERILIZED WITH A SOLUTION CONTAINING NOT LESS THAN 100 PARTS PER MILLION OF AVAILABLE CHLORINE. THE SOLUTION SHALL REMAIN IN THE SYSTEM FOR TWO (2) HOURS DURING WHICH TIME ALL VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER STERILIZATION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAN WATER UNTIL THE RESIDUE CHLORINE CONTENT IS NOT GREATER THAN THE CHLORINE LEVEL OF THE AVAILABLE WATER SUPPLY.

STERILIZATION SHALL BE PERFORMED PRIOR TO TURNOVER TO OCCUPANT AS TO NOT ALLOW FOR THE WATER SYSTEM TO REMAIN STAGNANT FOR LONGER THAN 24 HOURS.

THIS CONTRACTOR SHALL HAVE THE WATER TESTED AND APPROVED BY THE HEALTH DEPARTMENT.

29. SANITARY SEWERS

THIS CONTRACTOR SHALL CONNECT SANITARY SEWER AS INDICATED ON THE DRAWINGS. VERIFY DIRECTION OF FLOW PRIOR TO ANY ROUGH-IN WORK.

EACH PIPE SHALL BE LAID TO THE LINE AND GRADE INDICATED ON THE PLANS AND SUCH A MANNER AS TO FORM A CLOSE CONCENTRIC JOINT WITH THE ADJOINING PIPE AND TO PRESENT OFFSETS IN FLOW LINE. ALL PIPE SHALL BE LAID WITH THE BELLS UPHILL.

THE SUB-GRADES SHALL BE KEPT FREE FROM WATER WHILE PIPES ARE BEING LAID, ALL PIPE SHALL BE LAID WITH ENDS ABUTTING AND TRUE TO LINE AND GRADE. THEY SHALL BE FITTED AND MATCHED SO THAT THEY WILL FORM A SEWER WITH A SMOOTH AND UNIFORM INVERT.

EACH JOINT SHALL BE CLEANED AS IT IS LAID AND ALL BELLS SHALL BE CLEANED BEFORE PIPES ARE JOINED.

PVC SEWER PIPE MAY BE USED IN LIEU OF THAT SPECIFIED ABOVE IF ALLOWED BY LOCAL CODES.

30. WASTE, SOIL, DRAIN AND VENT PIPING

THE DRAINS, SOIL, WASTE AND VENT PIPE AND FITTINGS INCLUDING EXTENSIONS TO SEWERS SHALL BE OF THE SIZES INDICATED ON THE DRAWINGS. PIPE AND FITTINGS TO BE, CYLINDRICAL AND FREE FROM CRACKS OR OTHER DEFECTS.

ALL TRENCHES TO BE DUG WITH GRADUAL FALL, THE PIPING TO BE STRAIGHT AND FREE FROM ANY SAGS.

THE ARRANGEMENT OF THE SYSTEM SHALL BE AS SHOWN ON THE DRAWINGS AND AS DIRECT AS POSSIBLE, AVOIDING ALL UNNECESSARY OFFSETS. THE STACKS SHALL BE FIRMLY SECURED IN POSITION WITH WROUGHT IRON CLAMPS AT EACH FLOOR.

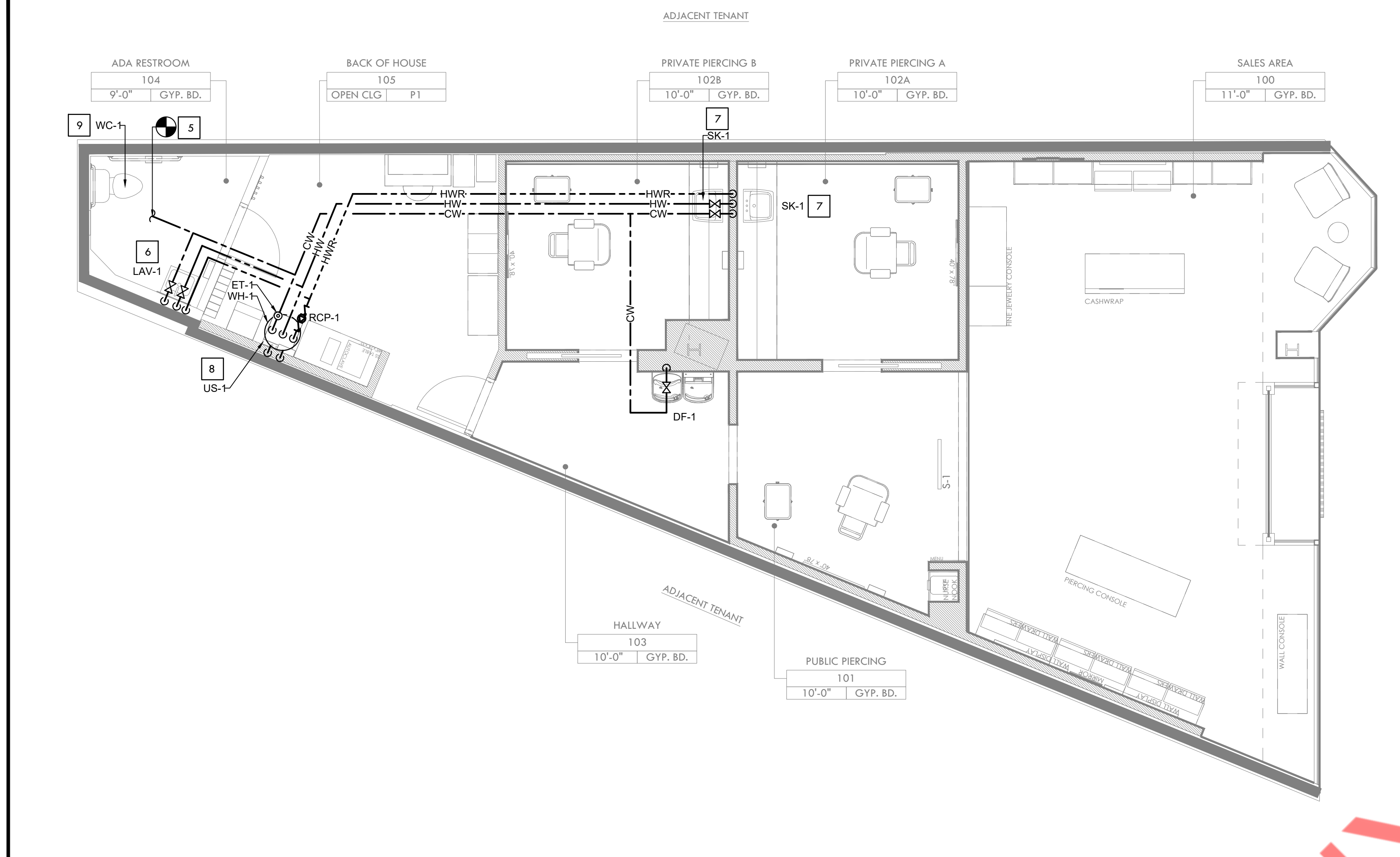
ALL CHANGES IN DIRECTION OF SOIL OR WASTE PIPE SHALL BE MADE BY MEANS OF "Y" BRANCHES AND 1/8 BENDS. NINETY DEGREE SHORT TURN FITTINGS WILL NOT BE PERMITTED EXCEPT TO INDIVIDUAL FIXTURE CONNECTIONS OR WHERE THE FLOW IS FROM THE HORIZONTAL TO THE VERTICAL.

SANITARY CLEANOUTS ARE TO BE PROVIDED AT EVERY TURN GREATER THAN 45°, AT INTERVALS OF NO GREATER THAN 50', AT ANY STACK ROUTING BELOW GRADE. NOT ALL CLEANOUTS LOCATIONS MAY BE SHOWN ON THE DRAWING.

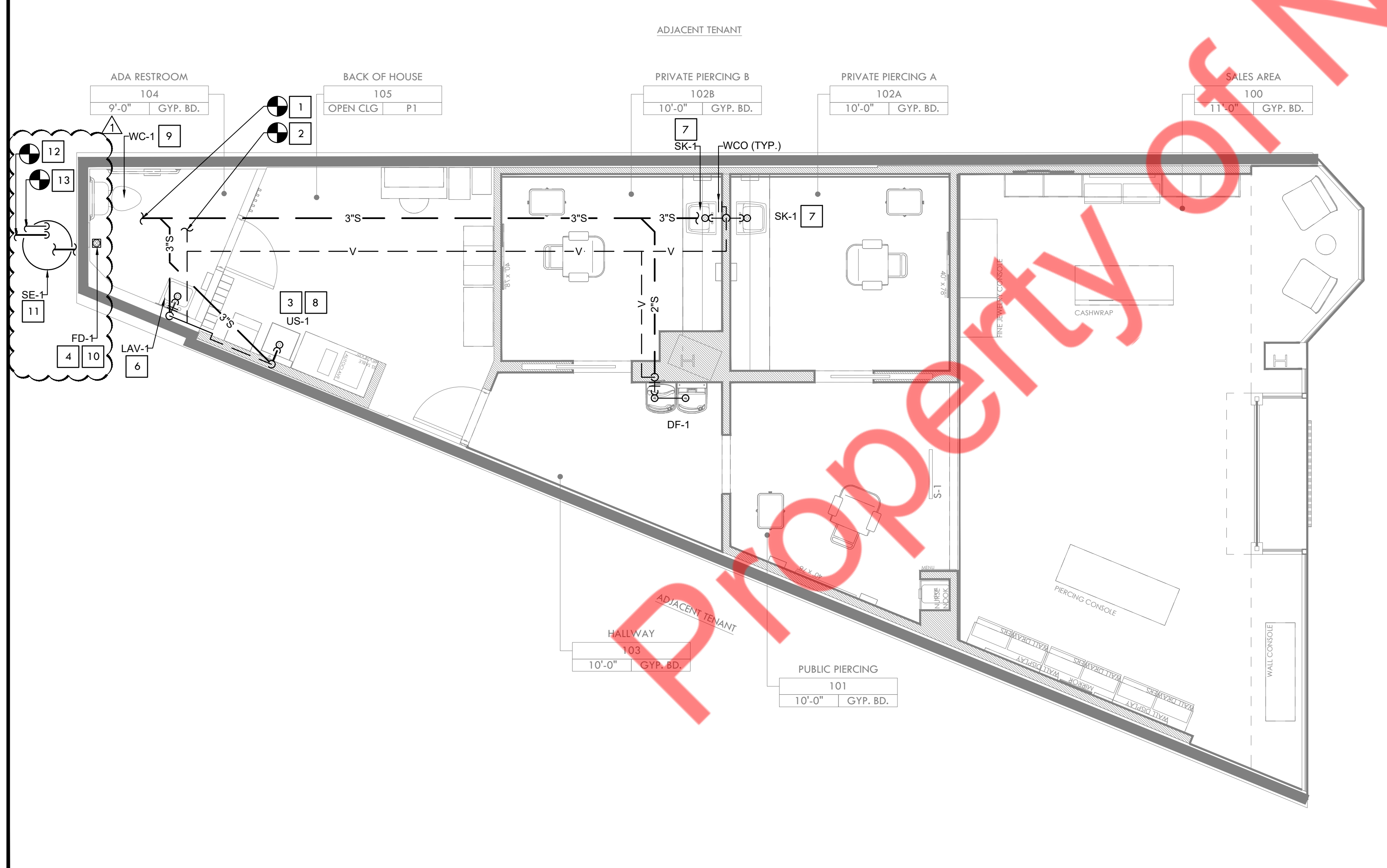
ALL TRAP SCREWS MUST BE OF FULL SIZE OF PIPE UP TO 4" AND 4" FOR ALL OVER THIS SIZE. CONNECTIONS BETWEEN OUTLETS OF FIXTURES AND SOIL OR WASTE PIPE SHALL BE MADE WITH "Y" BRANCHES TO "Y" BRANCHES WHEREVER POSSIBLE. ALL HORIZONTAL SOIL WASTE AND VENT PIPE SHALL BE GRADED TOWARD OUTLETS AND PIPE NOT BURIED SHALL BE INSTALLED ABOVE THE CEILING OR CLOSE AS POSSIBLE TO THE CONSTRUCTION ABOVE WHERE THERE IS NO CEILING.

THE STACKS SHALL BE EXTENDED THROUGH ROOF OF BUILDING TO POINTS NOT LESS THAN 12" ABOVE ROOF. EXTENSIONS THROUGH ROOF SHALL BE MADE WATER-TIGHT BY MEANS OF A LEAD FLASHING OF FOUR POINTS SHEET LEAD SPREAD OVER A DISTANCE OF NOT LESS THAN TWELVE INCHES (12") AROUND PIPE. THIMBLE TO BE SOLDERED TO BASE AND EXTENDED OVER AND TURNED DOWN INTO END OF PIPE IN AN APPROVED MANNER.

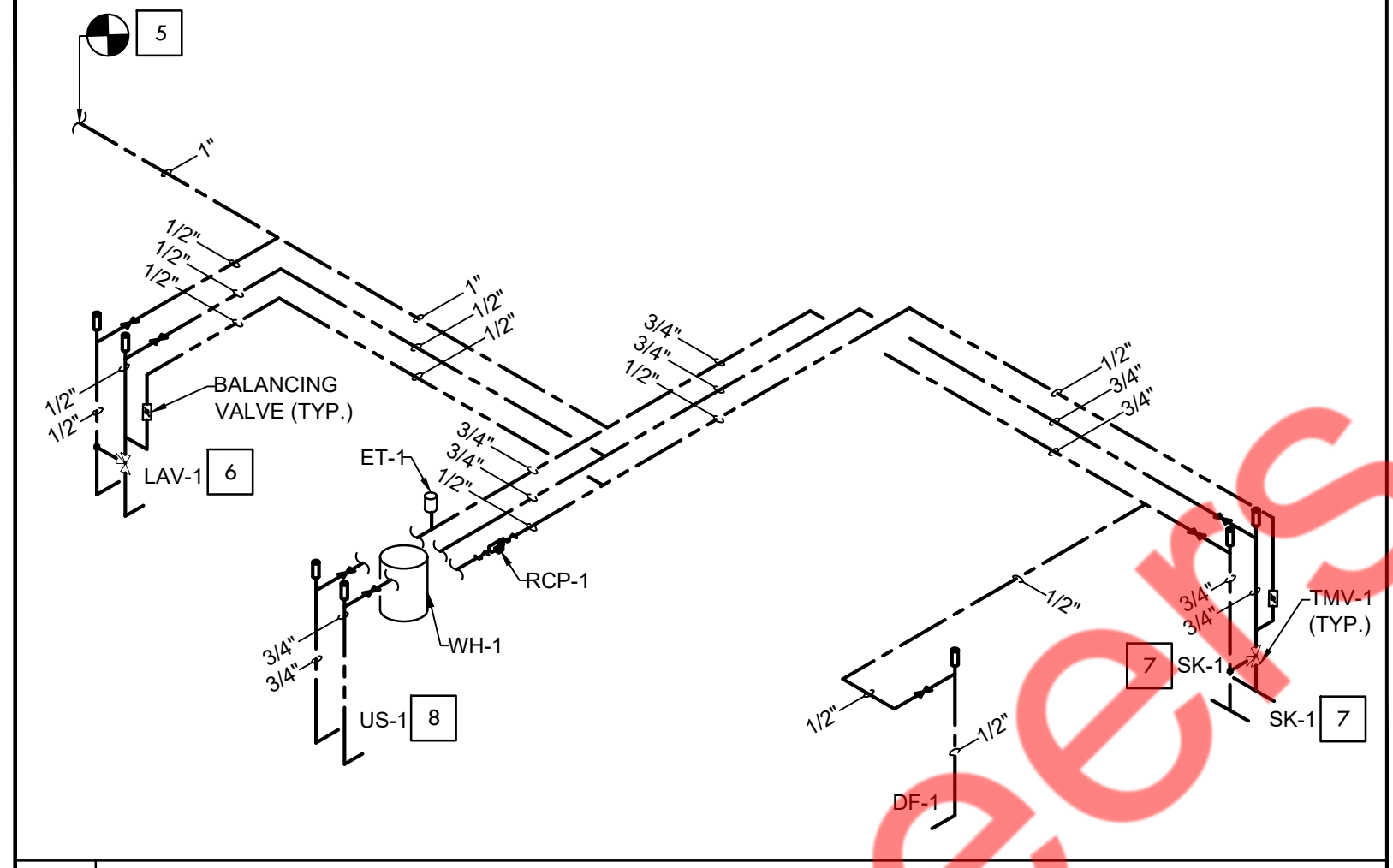
ALL CLEANOUTS IN FLOORS TO BE JOSAM #8360 OR EQUAL. ADJUSTABLE CLEANOUT WITH BODY TO MATCH THE PIPING MATERIAL. CAST BRASS SCORLATED COVER WITH



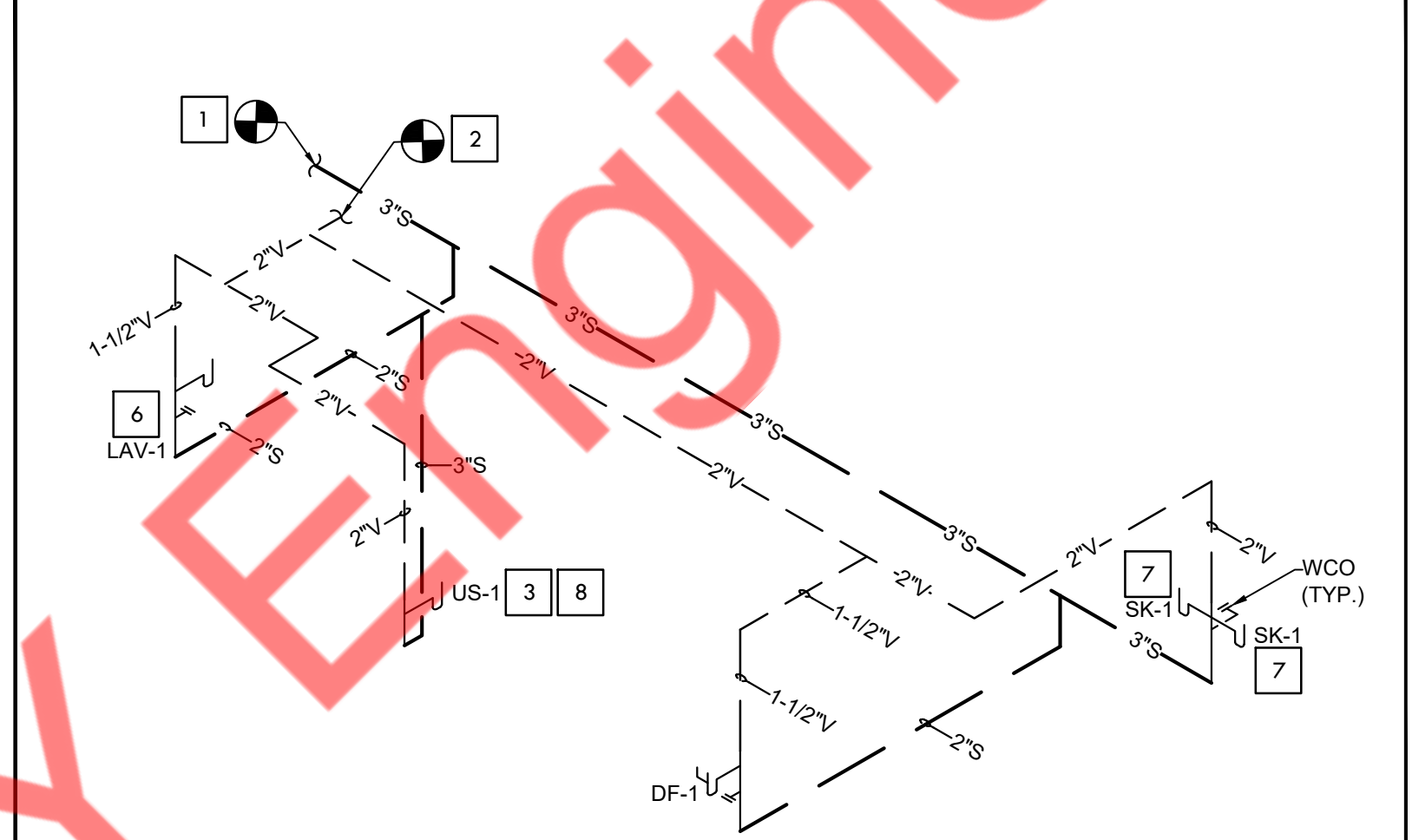
2 WATER SUPPLY FLOOR PLAN
1/4" = 1'-0"



1 SANITARY AND VENT FLOOR PLAN
1/4" = 1'-0"



4 WATER SUPPLY RISER DIAGRAM
N.T.S.



3 SANITARY AND VENT RISER DIAGRAM
N.T.S.

Plumbing Comments:

- Any changes and/or upgrades to tenant's existing plumbing systems shall comply with all codes and mall criteria. Existing systems shall possess the capacity to handle any and all changes in load.
- All water lines shall be copper - PVC is not permitted. There shall be no piping joints of fittings installed in water piping below the floor slab.
- All drain, waste and vent fittings above grade must be cast iron pipe.
- Plumbing is not permitted in any demising partitions. Furr out the wall as necessary.
- Exhaust and plumbing vents shall be located a minimum of 10'-0" away from any outside air intake, and 5'-0" from any demising wall vertical plane.
- All floor drains are required to have trap primers.
- Any unused plumbing equipment, piping, etc., within or serving the premises must be completely removed to point of origin. Do not abandon in place.
- All floor penetrations must be core bored, sleeved, grouted, sealed and made waterproof. Sleeves must extend a minimum of 4" AFF.
- If not already existing, install a shut off valve on domestic water line inside space.
- Tenant is required to install a waterproof membrane in all wet areas of the space. Tenant shall use a 30 mil polyethylene cleavage membrane (equal to Noblesse/TS) installed per manufacturer's recommendations and ANSI A108. Membrane must be extended up the wall a minimum of 6" or equal to the height of the floor base.
- Slab requirements: Slab on grade. Tenant's General Contractor shall advise the Operations Team prior to any slab modifications or removal. If any elevated slab is to be modified in anyway (filled, core, or penetrated), tenant shall provide stamped and certified drawings by a licensed structural engineer certified in the local jurisdiction. All penetrations shall be CORE BORED ONLY. Saw cutting, jack hammering, and trenching is strictly prohibited. All penetrations shall be sleeved, sealed, fire stopped, and waterproofed. The penetration sleeve shall extend a minimum of 4" on either side of the slab and be labeled with the required NFPA rating. Tenant GC shall verify that Work shall not conflict with any existing structural, utility, or other under-slab condition. (Nondestructive verification may be required.) Any damage or downtime caused by Tenant's work shall be repaired and reimbursed at Tenant's expense.
- Elevated Slabs: Tenant's General Contractor shall advise the Operations Team prior to any slab modification or removal. If any elevated slab is to be modified in anyway (filled, core, or penetrated), tenant shall provide stamped and certified drawings by a licensed structural engineer certified in the local jurisdiction. All penetrations shall be CORE BORED ONLY. Saw cutting, jack hammering, and trenching is strictly prohibited. All penetrations shall be sleeved, sealed, fire stopped, and waterproofed. The penetration sleeve shall extend a minimum of 4" on either side of the slab and be labeled with the required NFPA rating. Tenant GC shall verify that Work shall not conflict with any existing structural, utility, or other under-slab condition. (Nondestructive verification may be required.) Any damage or downtime caused by Tenant's work shall be repaired and reimbursed at Tenant's expense.
- Landlord strongly prefers use of energy star products and/or equipment whenever possible during Tenant build out, which can reduce energy consumption.

Simon

- GENERAL NOTES**
- ENSURE FULL FLOOR IS WATERPROOFED IN ALL TOILET ROOMS, AROUND SINKS AND ANY OTHER LOCATIONS WHERE WATER IS USED. EXTEND WATERPROOFING A MINIMUM 6" UP WALLS. MINIMUM 10' RADIUS AROUND PLUMBING WHERE NO WALL EXISTS.
 - ANY CHANGES AND/OR UPGRADES TO TENANT'S EXISTING PLUMBING SYSTEMS SHALL COMPLY WITH ALL LOCAL CODES. EXISTING SYSTEMS SHALL SERVING THE CAPACITY TO HANDLE ANY AND ALL CHANGES IN LOAD.
 - ANY UNUSED PLUMBING EQUIPMENT, PIPING, ETC., WITHIN OR SERVING THE PREMISES MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN. DO NOT ABANDON IN PLACE.
 - INSPECT AND TEST ALL EXISTING SANITARY SEWER LINES AND WATER LINES. REPAIR AND/OR REPLACE AS REQUIRED. SNAKE-OUT EXISTING SANITARY AND WATER LINE.
 - ALL FLOOR DRAINS ARE REQUIRED TO HAVE TRAP PRIMERS.
 - IF NOT ALREADY EXISTING, INSTALL A SHUT OFF VALVE ON DOMESTIC WATER LINE INSIDE SPACE.
 - ALL PLUMBING SHUTOFF VALVE SHALL BE COORDINATED WITH MECHANICAL EQUIPMENT AND SHALL BE EASILY ACCESSIBLE EASILY ACCESSED FOR FUTURE OPERATION.
 - NO ROOF PENETRATIONS PERMITTED WITHIN ROOF WATER PLY, REFER TO ROOF PLAN FOR LOCATIONS.
 - ALL FLOOR PENETRATIONS MUST BE CORE BORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES MUST EXTEND A MINIMUM OF 4" AFF.
 - EXISTING PLUMBING LINES SHALL BE INSPECTED AND TESTED, AS REQUIRED. CONTRACTOR SHALL VERIFY IN THE FIELD THAT EXISTING PLUMBING LINES ARE IN WORKING CONDITION. ANY DEFICIENCIES IDENTIFIED DURING INSPECTION SHALL BE REPORTED TO THE OWNER/PROPERTY MANAGEMENT TEAM FOR REVIEW AND DIRECTION PRIOR TO ANY REPAIR OR REPLACEMENT. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE LOCAL PROPERTY MANAGEMENT TEAM.

- PLUMBING KEYED NOTES:**
- EXTEND AND CONNECT NEW 3" SANITARY PIPING TO THE EXISTING SANITARY LINE IN THE SPACE. CONTRACTOR SHALL VERIFY THE EXISTING SANITARY LINE PIPE SIZE, LOCATION, INVERT, DIRECTION OF FLOW & TIE-IN CONNECTION PRIOR TO BID.
 - EXTEND AND CONNECT NEW 2" VENT LINE TO EXISTING VENT LINE IN THE SPACE. CONTRACTOR TO FIELD VERIFY EXISTING VENT PIPE LOCATION AND SIZE PRIOR TO BID. UPGRADE EXISTING VENT SIZE IF REQUIRED. PROVIDE A NEW VTR IF EXISTING ONE IS NOT AVAILABLE. BASE BID ACCORDINGLY. COORDINATE WITH THE LANDLORD / BASE BUILDING ENGINEER IN CASE ANY DISCREPANCIES.
 - ROUTE T AND P INDIRECT WASTE FROM WATER HEATER (WH-1) TO UTILITY SINK (US-1) WITH APPROVED AIR GAP.
 - PROVIDE THE TRAP PRIMER FOR ALL THE FLOOR DRAINS (FD-1).
 - EXTEND AND CONNECT NEW 1" CW LINE TO EXISTING COLD WATER LINE IN THE SPACE. CONTRACTOR TO FIELD VERIFY EXISTING COLD WATER LINE LOCATION AND SIZE. UPGRADE EXISTING COLD WATER LINE, IF REQUIRED. PROVIDE NEW WATER METER, IF NOT EXISTING OR NOT IN GOOD CONDITION. BASE BID ACCORDINGLY.
 - FURNISH AND INSTALL NEW LAVATORY (LAV-1) AS SHOWN. EXTEND NEW PIPING CONNECTION FROM SANITARY WASTE, VENT AND DOMESTIC WATER PIPING AS REQUIRED. EXTEND NEW HOT WATER PIPING TO NEW LAVATORY FROM NEW WATER HEATER (WH-1) AS REQUIRED. ADD THERMOSTATIC MIXING VALVE TMV-1 (ASSE 1070 APPROVED). REFER TO PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS.
 - FURNISH AND INSTALL NEW SINK (SK-1) AS SHOWN. EXTEND NEW PIPING CONNECTION FROM SANITARY WASTE, VENT AND DOMESTIC WATER PIPING AS REQUIRED. EXTEND NEW HOT WATER PIPING TO NEW SINK (SK-1) FROM NEW WATER HEATER (WH-1) AS REQUIRED. ADD THERMOSTATIC MIXING VALVE TMV-1 (ASSE 1070 APPROVED). REFER TO PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS.
 - FURNISH AND INSTALL NEW UTILITY SINK (US-1) AS SHOWN. EXTEND NEW PIPING CONNECTION FROM SANITARY WASTE, VENT AND DOMESTIC WATER PIPING AS REQUIRED. VERIFY EXACT LOCATIONS IN FIELD. REFER TO PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS.
 - EXISTING WATER CLOSET TO BE REPLACED WITH NEW WATER CLOSET AT THE EXISTING LOCATION, WITH THE EXISTING PLUMBING LINES, ASSOCIATED ACCESSORIES AND FITTINGS TO REMAIN. CONTRACTOR TO VERIFY IN FIELD, CONDITION OF EXISTING PLUMBING LINES AND REPLACE IF PIPES ARE NOT IN GOOD CONDITION. REFER TO PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS.
 - EXISTING FLOOR DRAIN TO BE REPLACED WITH NEW FLOOR DRAIN (FD-1) AT THE EXISTING LOCATION, WITH THE EXISTING PLUMBING LINES. CONTRACTOR TO VERIFY IN FIELD, CONDITION OF EXISTING PLUMBING LINES AND REPLACE IF PIPES ARE NOT IN GOOD CONDITION. REFER TO PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS.
 - EXISTING SEWER EJECTOR PUMP TO BE REPLACED WITH A NEW SEWAGE EJECTOR PUMP AT THE EXISTING LOCATION, WITH THE EXISTING PLUMBING LINES. INSTALL THE SEWER EJECTOR PUMP AS PER THE MANUFACTURER'S REQUIREMENTS. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR MORE DETAILS. BASE BID ACCORDINGLY.
 - EXTEND AND CONNECT NEW 2" SANITARY WASTE LINE FROM SEWAGE EJECTOR PUMP (SE-1) TO THE EXISTING BASE BUILDING SANITARY WASTE LINE. CONTRACTOR SHALL VERIFY THE EXISTING SANITARY LINE PIPE SIZE, LOCATION, INVERT, DIRECTION OF FLOW & TIE-IN CONNECTION PRIOR TO BID. CONTRACTOR TO COORDINATE WITH THE LANDLORD / BASE BUILDING ENGINEER PRIOR TO THE NEW CONNECTION TO THE EXISTING BASE BUILDING SYSTEM.
 - EXTEND AND CONNECT A NEW 2" VENT LINE FROM THE NEW EJECTOR PUMP TO THE EXISTING VENT LINE IN THE SPACE. CONTRACTOR TO FIELD-VERIFY THE EXISTING VENT PIPE LOCATION AND SIZE PRIOR TO BID. UPGRADE THE EXISTING VENT SIZE IF REQUIRED. BASE BID ACCORDINGLY.

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY KOWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET
12.22.25	LL & CLIENT COMMENTS

DATE	REVISION

Landlord Review Comments (GG):

No NEW piping in demising walls, must furr out wall for NEW piping.

Tenants shall provide at least one, full size cleanout in toilet and kitchen areas. Cleanout may be wall or floor type but must be accessible from within the Tenant's space.

All coring, saw cutting and slab removal to occur outside of normal business hours. Coordinate all work with Operations Director PRIOR to scheduling work to occur.

Prior to commencing of plumbing work the tenant's GC must camera the existing sanitary line back to the point of connection to the mall's main line and share findings with mall operations director for review and comments.

PROJECT INFORMATION:

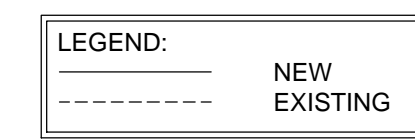
PROJECT NUMBER: 13553-25
 DRAWN BY: NYE
 REVIEWED BY: NYE
 AREA: 1,252 SQ. FT.

TITLE:

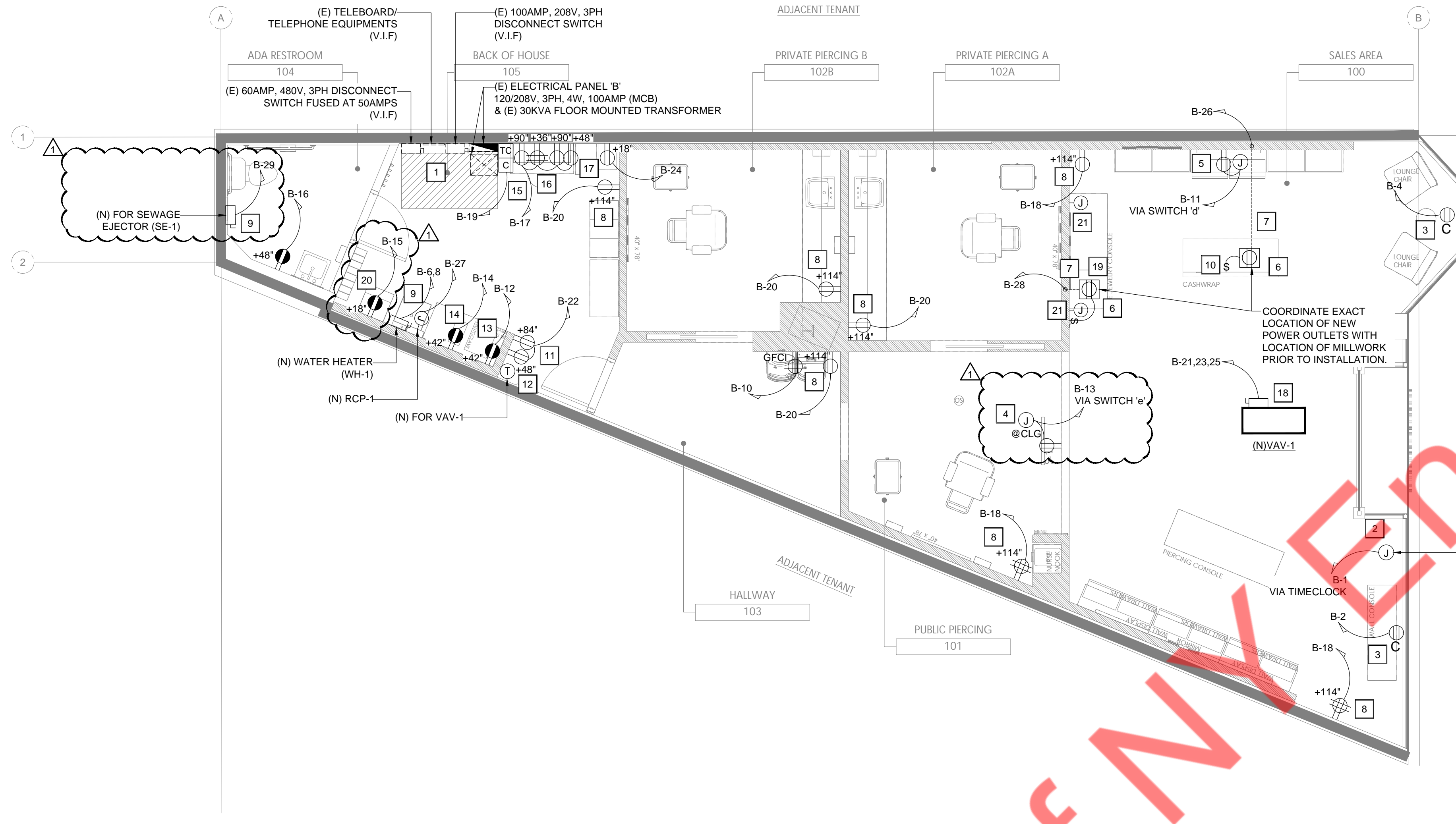
PLUMBING FLOOR PLAN AND RISER DIAGRAM

SHEET NUMBER:

P2.0



- ### KEY NOTES
- EXISTING ELECTRICAL PANEL & ELECTRICAL EQUIPMENTS SHALL REMAIN. E.C. SHALL VERIFY EXACT LOCATION, RATING, OPERABLE CONDITION IN FIELD. REPLACE IF FOUND INOPERABLE. BASE BID ACCORDINGLY. E.C. SHALL MAINTAIN CLEARANCE FOR ELECTRICAL PANEL PER CEC 110.26 (A) (1). REFER SHEET E4.0 ELECTRICAL RISER DIAGRAM FOR MORE INFORMATION.
 - PROVIDE CEILING JUNCTION BOX THROUGH ACCESS PANEL FOR NEW ILLUMINATED STOREFRONT SIGN. E.C. TO COORDINATE WITH SIGN VENDOR FOR EXACT LOCATION & REQUIREMENTS PRIOR TO INSTALLATION. BASE BID ACCORDINGLY.
 - PROVIDE A SHOW WINDOW RECEPTACLE ABOVE THE WINDOW ON THE WALL OR CEILING AS REQUIRED TO MEET NEC 210.62 SHOW WINDOW REQUIREMENTS. COORDINATE THE EXACT LOCATION WITH THE ARCHITECT. CONTRACTOR TO FIELD VERIFY THE EXISTING SHOW WINDOW RECEPTACLE AVAILABILITY & OPERABLE CONDITION. REUSE IF POSSIBLE. OTHERWISE PROVIDE NEW AS SHOWN ON PLAN.
 - "PIERCING" SIGNAGE. PROVIDE NEW 1'-0" X 1'-0" ACCESS PANEL IN CEILING AND SIGN OUTLET TO BE PLACED ABOVE CEILING. CONNECT TO A J-BOX CENTERED ON "PIERCING" SIGN. J-BOX TO BE TRIMMED OUT WITH WHITE LEGRAND CMK60 GROMMET KIT. PROVIDE DUPLEX RECEPTACLE AS REQUIRED. E.C. TO COORDINATE WITH SIGN VENDOR FOR EXACT LOCATION & REQUIREMENTS PRIOR TO INSTALLATION. REFER TO SHEET E3.0 FOR SWITCH LOCATION. BASE BID ACCORDINGLY.
 - "PIERCER PIERCE" SIGNAGE. PROVIDE 1'-0" X 1'-0" ACCESS PANEL IN CEILING AND SIGN OUTLET TO BE PLACED ABOVE CEILING. CONNECT TO J-BOX CENTERED ON SIGN. J-BOX TO BE TRIMMED OUT WITH WHITE LEGRAND CMK60 GROMMET KIT. PROVIDE DUPLEX RECEPTACLE AS REQUIRED. E.C. TO COORDINATE WITH SIGN VENDOR FOR EXACT LOCATION & REQUIREMENTS PRIOR TO INSTALLATION. REFER TO SHEET E3.0 FOR SWITCH LOCATION. BASE BID ACCORDINGLY.
 - PROVIDE IN-FLOOR POWER CONNECTION FOR THE CASH WRAP AREA. INSTALL SURFACE-MOUNTED DUPLEX RECEPTACLES AT THE BOTTOM OF THE CASH WRAP UNIT. EXTEND NEW CIRCUIT WIRING FROM THE DESIGNATED POWER SOURCE TO THE NEW RECEPTACLE LOCATIONS. ELECTRICAL CONTRACTOR SHALL FIELD-VERIFY ALL CONDITIONS PRIOR TO BIDDING.
 - APPROXIMATE LOCATION OF CONDUIT UNDER SLAB USE FOR CASH WRAP. CONTRACTOR TO PROVIDE NEW CASHPANS AT ENDS OF EACH CONDUITS. TRENCH FLOOR AND ROUTE TO NEAREST WALL AND UP TO CEILING TO TELEPHONE/DATA BOARD AND EXISTING PANEL LOCATION. VERIFY TRENCHING REQUIREMENTS WITH LANDLORD'S REPRESENTATIVE PRIOR TO START OF WORK.
 - PROVIDE QUAD/DUPLEX OUTLET FOR RING CAMERA/Sonos SPEAKER. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION AND MOUNTING HEIGHT, PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - SEWAGE EJECTOR (SE-1) AND WATER HEATER SHALL BE PROVIDED WITH THE REQUIRED ROUGH-INS, MOCP, AND WIRE SIZES. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR THE EXACT TYPE OF ROUGH-INS AND WIRE SIZE AT THE COMMENCEMENT OF WORK. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT/OWNER IN FIELD.
 - E.C. TO PROVIDE MANUAL SWITCH TO OPERATE CASHWRAP/CONSOLE OUTLETS. CONTRACTOR SHALL COORDINATE EXACT LOCATION, MOUNTING HEIGHT WITH ARCHITECT/OWNER IN FIELD. PRIOR TO ROUGH IN.
 - PROVIDE DUPLEX OUTLET AT 48" & 84" A.F.F FOR RING KEYPAD AND RECEIVER. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - E.C. TO PROVIDE CONDUIT WITH PULL STRING FROM THERMOSTAT AND SENSOR (AS REQUIRED) TO MECHANICAL UNIT. VERIFY EXACT LOCATION WITH MECHANICAL CONTRACTOR/LANDLORD IN THE FIELD.
 - PROVIDE DUPLEX OUTLET AT 42" A.F.F FOR AUTOCLAVE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - PROVIDE DUPLEX OUTLET AT 42" A.F.F FOR ULTRASONIC. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - E.C. TO FIELD VERIFY THE OPERABLE CONDITION OF EXISTING TIME CLOCK/ CONTACTOR. REUSE IF POSSIBLE OTHERWISE PROVIDE NEW TIME CLOCK AND LIGHTING CONTACTORS AS SHOWN. COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT LOCATION & REQUIREMENT. BASE BID ACCORDINGLY.
 - PROVIDE OUTLETS FOR INTERNET/ SECURITY & DESK CONVENIENCE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - RECEPTACLE FOR PRINTER CART. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - THE VAV UNIT SHALL BE PROVIDED WITH THE REQUIRED ROUGH-INS, MOCP, AND WIRE SIZES. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MANUFACTURER FOR THE EXACT TYPE OF ROUGH-INS AND WIRE SIZE AT THE COMMENCEMENT OF WORK. BASE BID ACCORDINGLY.
 - E.C. TO PROVIDE MANUAL SWITCH TO OPERATE FINE JEWELRY FIXTURE OUTLETS. THE CONTROL CIRCUIT TO BE ROUTED THROUGH THE TIME CLOCK. CONTRACTOR SHALL COORDINATE EXACT REQUIREMENT, LOCATION, MOUNTING HEIGHT WITH ARCHITECT/OWNER IN FIELD. PRIOR TO ROUGH IN. REFER TO TIME CLOCK & LIGHTING CONTACTOR DETAILS ON SHEET E4.0.
 - DUPLEX OUTLET AT 18" A.F.F FOR MICROWAVE/FRIDGE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
 - JUNCTION BOX FOR WALL SCONCE LIGHTS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/OWNER FOR THE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED. REFER SHEET E3.0 - ELECTRICAL LIGHTING PLAN FOR CIRCUITING & CONTROLS. BASE BID ACCORDINGLY.



Security Camera Comments:

- *Security equipment must be installed within the Premises, cameras and/or security equipment are not permitted on the exterior of the Premises unless approved in writing by Landlord. However, in cases where Landlord approves exterior cameras or equipment, the cameras or equipment should be positioned so to limit viewing area and shall capture images of the Tenant's doorways only and shall not capture images outside of the Premises. In cases where a Tenant may have an approved patio area, all cameras or equipment shall be installed and operated so as to capture only the approved patio and no common area.
- *All equipment, installation methods and locations must be approved by Landlord in writing prior to installation.
- *No signal shall be emitted outside the Premises.
- *Absolutely no distribution, electronically or otherwise, of captured image or video to any third party other than Landlord upon request.
- *Security cameras, vision panels, or "bubbles" shall not be visible to public view in the design control zone or on patios from the common area.

SIMON

Electrical Comments:

- *Tenant is required to make a field survey of the existing electrical service to ensure that the total connected load does not exceed the electrical 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.
- *EMT (electric metallic tubing) shall be used in all demising walls, home runs, and between boxes and pull boxes. MC Cable may be used in other application as allowed by the Authority Having Jurisdiction (AHJ). All exposed conduit, rigid or MC Cable, shall be installed in light straight lines, parallel or in right angles to the building structure. Do not loop excess MC Cable in ceiling space or wall cavity.
- *All feeders shall be copper. Type AC and NM (Romex) cables are not acceptable.
- *All panels shall be UL labeled with built on type circuit breakers. Panels shall NOT be recessed in demising and shall be mounted on plywood backer panels unless recessed into a furred out or interior wall.
- *Panel phase loads to be balanced within 10%.
- *Only 30 kVA and smaller transformers may be suspended from building structure. All other transformers must be floor supported. Structural support documentation shall be required to meet Authorities Having Jurisdiction (AHJ).
- *Nothing is permitted to be attached to, suspended from, or penetrate Landlord's structure, floor deck, or roof deck. You may attach, non-destructively, to or suspend from the top chord of the joist or the structural steel which exists above the tenant space. When attaching to landlord's structure, do NOT drill, weld, screw, or shoot into structure. Alternative methods of attachment ONLY, nothing to damage landlord's base building structure. Tenant shall provide signed and sealed structural drawings, by a structural engineer with legally active registration as indicated by all jurisdictional requirements, for all structural modifications for Landlord records.
- *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.
- *All equipment, devices and fixtures shall be grounded in compliance with NEC and UL requirements.
- *Slab requirements: Tenant's General Contractor shall advise the Operations Team prior to any slab modifications or removal. Tenant GC shall verify that Work shall not conflict with any existing structural, utility, or other under-slab condition. (Nondestructive verification maybe required.) Any damage or downtime caused by Tenant's work shall be repaired and reimbursed at Tenant's expense.
- *Elevated Slabs: Tenant's General Contractor shall advise the Operations Team prior to any slab modification or removal. If any elevated slab is to be modified in anyway (drilled, core, or predrilled), tenant shall provide stamped and certified drawings by a licensed structural engineer certified in the local jurisdiction. All penetrators shall be CORE BORED ONLY. Saw cutting, jack hammering, and trenching is strictly prohibited. All penetrators shall be sleeved, sealed, fire stopped, and waterproofed. The penetration sleeve shall extend a minimum of 4" on either side of the slab and be labeled with the required NFPA rating. Tenant GC shall verify that Work shall not conflict with any existing structural, utility, or other under-slab condition. (Nondestructive verification maybe required.) Any damage or downtime caused by Tenant's work shall be repaired and reimbursed at Tenant's expense.
- *Landlord strongly prefers use of energy star products and/or equipment whenever possible during Tenant build out, which can reduce energy consumption.

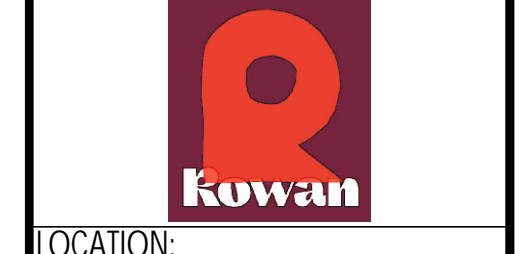
SIMON

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY ROWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET

DATE	REVISION
12.22.25	LL & CLIENT COMMENTS



LOCATION:

PROJECT INFORMATION:
 PROJECT NUMBER: 13553-25
 DRAWN BY: NYE
 REVIEWED BY: NYE
 AREA: 1,252 SQ. FT.

TITLE:
ELECTRICAL POWER PLAN

SHEET NUMBER:

E2.0

1 ELECTRICAL POWER PLAN

1/4" = 1'-0"

GENERAL NOTES

- ALL MILLWORK (UNLESS NOTED OTHERWISE) INCLUDING HARDWARE TO BE FURNISHED BY CLIENT AND INSTALLED BY G.C.
 - G.C. TO PROVIDE BLOCKING FOR WALL FIXTURES AS REQUIRED. REFER TO SHOP DWGS FOR EXACT DIMENSIONS.
 - ALL WOODWORK ATTACHED TO THE PREMISES, BLOCKING, GROUNDS, ETC. SHALL BE FIRE RETARDANT AND COMPLY WITH THE LANDLORD'S FIREPROOF GOVERNING BUILDING CODE REQUIREMENTS (IF APPLICABLE).
 - REFER TO SHOP DWGS DRAWINGS FOR LOCATION OF FIXTURE OUTLETS.
 - G.C. TO PROVIDE CONDUIT FOR DATA, POWER, PHONE ETC. FOR CASH DESK.
 - ALL SIGNAGE, TICKER SCREEN, PROVIDED BY CLIENT. POWER SUPPLIED BY G.C. NEON SIGN POWER AND INSTALL BY GC. STOREFRONT SIGNAGE, FLIK FLAK LOGO TO INSTALLED BY VENDOR
 - REFER TO REFLECTED CEILING PLAN FOR SIGNAGE DETAILS.
 - FOR ALL ELECTRICAL OUTLETS, REFER TO ARCHITECTURAL POWER PLAN.
 - G.C. TO REFER TO PAGES FOR FINISH LEGEND, INTERIOR PAINT NOTES AND GENERAL FINISH NOTES FOR ADDITIONAL INFORMATION / SPECIFICATIONS.
 - G.C. TO VERIFY CLEAR HEIGHTS IN SALES AREA AND RELATE INFORMATION TO ARCHITECT.
 - G.C. TO VERIFY EXACT LOCATION OF ALL EXISTING STRUCTURAL COLUMN(S) AND TO NOTIFY ARCHITECT OF ANY DISCREPANCIES / CONFLICTS PRIOR TO COMMENCING WORK.
- ALL MECHANICAL/HVAC EQUIPMENT TO REMAIN. UTILIZED EXISTING CIRCUIT, VERIFY IN FIELD. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- ALL RECEPTACLES WITHOUT TAG (E) ARE NEW TO BE PROVIDED AND INSTALLED BY CONTRACTOR.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
—	HOME RUN.
⊕	DUPLEX RECEPTACLE @ 18" A.F.F. U.N.O. MOUNTED AT CODE HEIGHT.
⊕	GROUND FAULT PROTECTED DUPLEX RECEPTACLE.
⊕	QUAD RECEPTACLE @ 18" A.F.F. U.N.O. MOUNTED AT CODE HEIGHT.
⊕	USB/ DUPLEX COMBINATION RECEPTACLE
⊕	SHOW WINDOW OUTLET
⊕	SINGLE OUTLET/SPECIAL RECEPTACLE
⊕	FLOOR QUAD
⊕	TELEPHONE RECEPTACLE AT +18"A.F.F., U.N.O.
⊕	FLOOR TELEPHONE RECEPTACLE.
⊕	DATA RECEPTACLE AT +18"A.F.F., U.N.O.
⊕	TELEPHONE / DATA COMBINATION RECEPTACLE AT +18"A.F.F., U.N.O.
⊕	FLOOR TELEPHONE / DATA COMBINATION RECEPT.
⊕	THERMOSTAT
⊕	POWER POLE.
⊕	LIGHT SWITCH.
⊕	WALL MOUNTED OCCUPANCY SENSOR AT +46" A.F.F.
⊕	CEILING MOUNTED OCCUPANCY SENSOR.
⊕	CEILINGS MOUNTED JUNCTION BOX.
⊕	DISCONNECT SWITCH.
⊕	ELECTRICAL PANEL.
⊕	FLOOR DUPLEX RECEPTACLE
⊕	DUCT SMOKE DETECTOR
⊕	WALL MOUNTED SMOKE DETECTOR TEST STATION

ELECTRICAL LEGEND

⊕	RING CAMERA
⊕	SONOS SPEAKER
⊕	DEDICATED GFCCI DUPLEX OUTLET
⊕	BUZZER
⊕	BUZZER PUSH BUTTON
⊕	MOTOR LOAD
⊕	MOTOR RATED TOGGLE SWITCH
⊕	TRANSFORMER

NOTE: NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS.

NOTE: ALL WIRES TO BE COPPER AND IN CONDUIT, INCLUDING LOW VOLTAGE

CONSTRUCTION NOTES

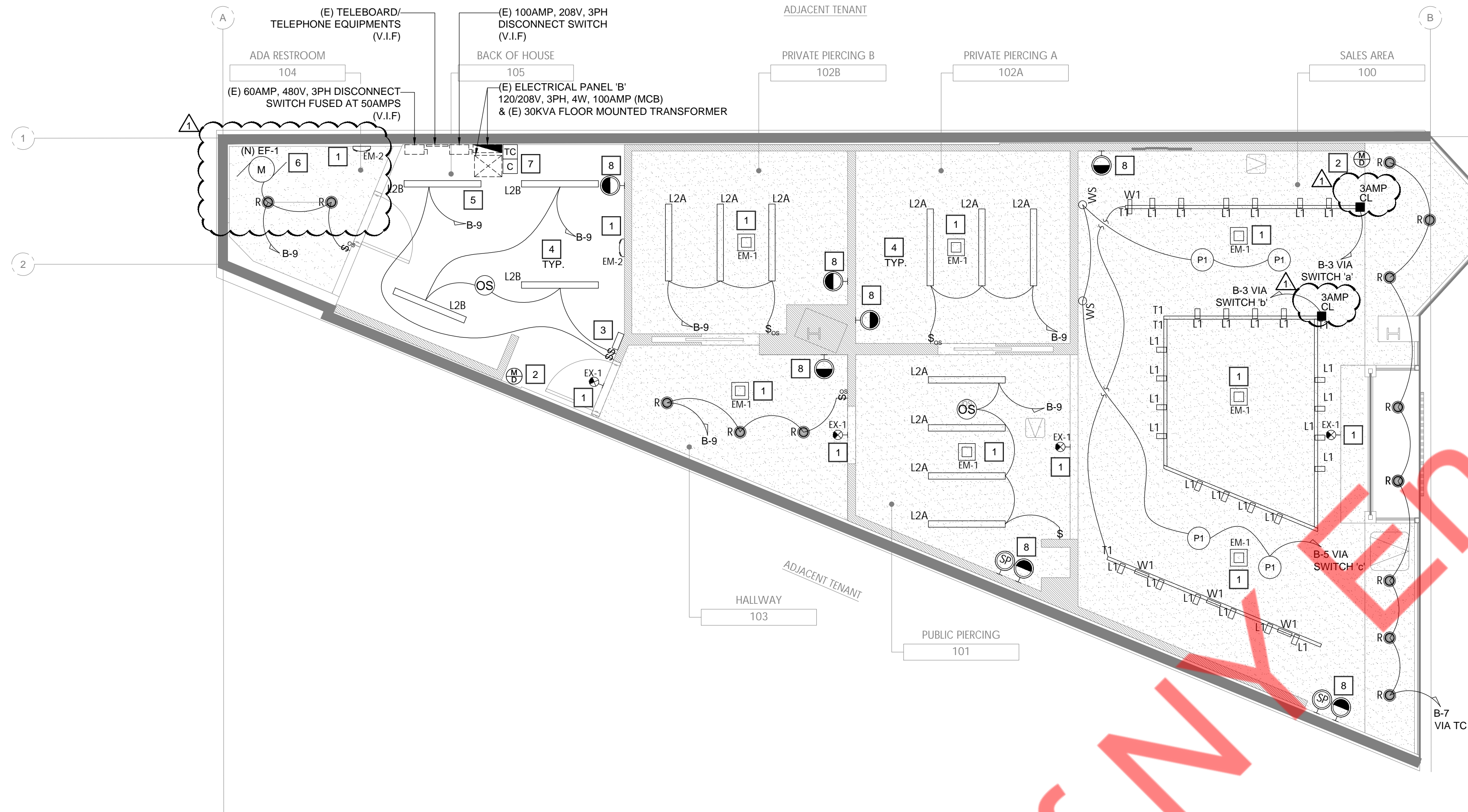
- G.C. TO V.I.F. (VERIFY IN FIELD) ALL EXISTING CONDITIONS AND TO NOTIFY ARCHITECT OF ANY DISCREPANCIES / CONFLICTS PRIOR TO COMMENCING WORK.
- ALL PARTITION METAL STUDS TO BE 20 GA ALUMINIUM U.N. . (UNLESS NOTED OTHERWISE)
- ALL PARTITIONS SHALL HAVE CONTINUOUS BOTTOM TRACK (SIZE & GAUGE TO MATCH VERTICAL STUDS). TRACKS SHALL BE FASTENED TO DECK WITH SECURE TRACK WITH MIN. 0145" DIA. PAF (POWDER ACTUATED FASTENERS) 16 O.C. AND 2 FROM EACH END.
- PATCH AND REPAIR ALL EXISTING DRYWALL AS REQUIRED PER EXISTING CONDITIONS AND/OR NEW WORK OR DEMOLITION. MAKE READY TO RECEIVE NEW FINISHES.
- TAPE AND PLASTER ALL NEW GWB (GYPSUM WALL BOARD) JOINTS. MAKE READY TO RECEIVE NEW FINISHES.
- ALL MIRRORS TO BE FURNISHED AND INSTALLED BY G.C.
- G.C. TO FURNISH & INSTALL ALL FIRE EXTINGUISHERS AS REQD BY GOVERNING AUTHORITIES & CODES. DO NOT PLACE IN AREAS TO BE MERCHANDISED UNLESS DIRECTED TO DO SO BY LOCAL AUTHORITIES.
- EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY. SPECIAL KNOWLEDGE OR EFFORT.
- WOOD BLOCKING, DECKING AND FRAMING IS ALLOWED ONLY BELOW THE CEILING LINE AND IT MUST BE MILL STAMPED AS "FIRE RETARDANT TREATED" (IF REQUIRED).
- G.C. SHALL OBTAIN CONSTRUCTION RULES AND REGULATIONS MANUAL FROM MALL.
- DO NOT ATTACH DIRECTLY TO LANDLORD ROOF DECK.
- PROVIDE BLOCKING FOR SIGNAGE OR WALL MOUNTED T.V.S. REFER TO SHOP DRAWINGS FOR ADDITIONAL INFORMATION.
- DIMENSIONS SHOWN ARE FOR REFERENCE ONLY. CLIENT SUPPLIED SHOP DRAWINGS SUPERCEDE ANY DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS.
- G.C. TO FORESEE ANCHORING FOR DR. SWATCH TABLE REFER TO CLIENT SUPPLIED SHOP DRAWINGS

NOTE: NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS. ALL OUTLETS TO BE WHITE. (E) - EXISTING (R) - EXISTING/RELOCATED (C) - CEILING MOUNTED (F) - FLOOR MOUNTED

LEGEND:
 - - - - - NEW
 _____ EXISTING

GENERAL NOTES

- TENANT GENERAL CONTRACTOR TO ALERT TENANT'S PROJECT MANAGER IMMEDIATELY AFTER DEMOLITION, IF SPECIFIED CEILING HEIGHTS CANNOT BE ACHIEVED FOR ANY REASON.
- ALL DIMENSIONS ARE TO THE CENTER LINE OF EACH FIXTURE (LIGHT FIXTURE, DIFFUSER, SPEAKER, EMERGENCY LIGHT FIXTURE, ETC), TYPICAL.
- G.C. IS RESPONSIBLE FOR PATCHING & REPAIRING ALL FIREPROOFING DECK AND COLUMNS AS REQUIRED DUE TO PRIOR TENANT CONSTRUCTION AND/OR DUE TO ANY NEW DEMOLITION OR NEW CONSTRUCTION TO MEET BOTH LANDLORD AND BUILDING DEPARTMENT REQUIREMENTS.
- G.C. IS RESPONSIBLE FOR INSTALLATION OF SPEAKER WIRE, ONE RUN FOR EACH SPEAKER TO SUB AND ONE RUN FROM SUB TO TELCO PANEL IN STOCK AREA.
- T.G.C. TO COORDINATE ACCESS PANEL LOCATION AND REQUIREMENTS WITH LANDLORD.
- PROVIDE ACCESS TO ANY LANDLORD EQUIPMENT, VALVES, DAMPERS, CLEANOUTS, JUNCTION BOXES, ETC. LOCATED ABOVE GYPSUM BOARD CEILING AREAS AS REQUIRED. VERIFY WITH THE MALL REPRESENTATIVE PRIOR TO START OF WORK.
- PROVIDE NEW UNISTRUT CEILING SYSTEM, SUPPORT CEILING & MECHANICAL, ELECTRICAL ITEMS FROM UNISTRUT.
- THE MECHANICAL AND ELECTRICAL DRAWINGS GOVERN THOSE SYSTEMS. THE LOCATION OF ALL MECHANICAL, ELECTRICAL ELEMENTS THAT ARE VISIBLE ARE INDICATED ON THE ARCHITECTURAL PLANS AND DETAILS. NOTIFY THE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- THE CEILING PLAN LAYOUT HAS PRIORITY OVER ITEMS NOT VISIBLE. ADJUST ABOVE CEILING LAYOUT AS REQUIRED. NOTIFY THE ARCHITECT OF ANY CONFLICTS PRIOR TO THE COMMENCING OF CONSTRUCTION.
- PROVIDE ADEQUATE CLEARANCE FOR ALL MECHANICAL, ELECTRICAL ELEMENTS AND ANY RELATED ITEMS NECESSARY TO MAINTAIN THE FINISHED CEILING HEIGHTS SHOWN ON THE REFLECTED CEILING PLAN.
- ALL CEILING HEIGHTS ARE MEASURED FROM TOP OF FINISH FLOOR TO THE UNDERSIDE OF FINISH CEILING.
- SEE ELECTRICAL DRAWINGS FOR FIXTURE SCHEDULE, QUANTITIES AND FOR ADDITIONAL MECHANICAL, ELECTRICAL ELEMENTS THAT ARE VISIBLE ARE INDICATED ON THE ARCHITECTURAL PLANS AND DETAILS. NOTIFY THE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- ALL CEILINGS THAT ARE GYPSUM WALL BOARD OR EXPOSED STRUCTURE ARE TO BE PAINTED, UNLESS GRAPHICALLY NOTED OTHERWISE.
- ANY ADDITIONAL HANGER OR SAFETY WIRES FOR LIGHT FIXTURES, SPEAKERS OR DIFFUSERS REQUIRED BY LOCAL CODES TO BE THE RESPONSIBILITY OF THE CEILING SUB-CONTRACTOR.
- DIFFUSERS AND SPEAKERS LOCATIONS ARE INDICATED FOR LAYOUT PURPOSE ONLY. REFER TO MEP DRAWINGS FOR MORE INFORMATION.
- COORDINATE WITH ELECTRICAL DRAWINGS FOR LOCATION AND QUANTITY OF EMERGENCY LIGHT FIXTURES (EM).
- WHERE DICTATED BY CODE, SEISMIC RESTRAINTS SHALL BE PROVIDED FOR CEILING ELEMENTS, INCLUDING BUT NOT LIMITED TO, LIGHT FIXTURES, ACOUSTIC TILE CEILING GRID, GYPSUM CEILING SYSTEMS, HVAC EQUIPMENT, ETC.
- COORDINATE ALL ROOF PENETRATION FOR DUCTWORK WITH MECHANICAL DRAWINGS. ALL ROOF WORK SHOULD BE COORDINATE W/LANDLORD AND DONE BY LANDLORD ROOF CONTRACTOR AT TENANT'S EXPENSE.
- GENERAL CONTRACTOR TO CONFIRM AND COORDINATE IN THE FIELD CEILING HEIGHTS NOTED WITH ANY NEW OR EXISTING CONDITIONS.
- COORDINATE WITH ELECTRICAL DRAWINGS FOR LOCATION.
- SPRINKLER SUB-CONTRACTOR TO PREPARE ENGINEERED SHOP DRAWINGS FOR PERMITTING.
- ADJUST SPACING OF FRAMING TO ACCOMMODATE LIGHT FIXTURES AS SHOWN.
- FINISHED HEIGHTS (A.F.F. DIMENSIONS) FOR CEILINGS, SOFFITS, CURTAIN WALLS & WALL SYSTEMS ARE TO BE SET FROM THE HIGHEST FLOOR SLAB POINT PLUS A 1/2" ALLOWANCE FOR UNEVEN SLAB CONDITIONS.
- COORDINATE LOCATION OF ALL FIXTURES WITH ARCHITECT'S REFLECTED CEILING PLAN.
- NO EXPOSED CONDUIT ALLOWED.
- ALL LIGHT FIXTURES ARE NEW UNLESS NOTED OTHERWISE.
- SUPPORT EACH 2x2 LIGHT FIXTURE INDEPENDENTLY FROM THE STRUCTURE, SEPARATE FROM THE CEILING SYSTEM.
- INSTALL THE 2x2 FLUORESCENT LIGHT FIXTURES WITH THE LAMPS INSTALLED PARALLEL TO THE LONG DEMISING WALL.
- G.C. TO COORDINATE LIGHT FIXTURE LOCATIONS WITH EXISTING DUCTWORK, BEAMS, ETC. IF ANY OBSTRUCTIONS ARE IN LOCATION OF LIGHT FIXTURE LOCATION, CONTACT THE PM IMMEDIATELY. RETURN AIR PLENUMS REQUIRE NON-COMBUSTIBLE CONSTRUCTION.
- WHEN JURISDICTION PROHIBITS CONCEALED WOOD BLOCKING, WHETHER FIRE RETARDANT TREATED OR NOT, GC SHALL PROVIDE NON-COMBUSTIBLE OR METAL STRAPPING OF A GAGE SUFFICIENT TO SUPPORT MIN. 2X ANTICIPATED PULL-OUT OR SHEAR LOAD.
- GC SHALL PROVIDE ALL ACCESS DOORS REQUIRED, WHETHER SHOWN OR NOT, NECESSARY TO ACCESS ALL MEP ITEMS CONCEALED BEHIND FINISHES, PROVIDE FIRE RATED A.D. IN F.R. ASSEMBLIES.
- PROVIDE FIRE RATED CEILING ASSEMBLIES WHEN REQUIRED BY AHJ, WHETHER SHOWN OR NOT. PROVIDE ALL NECESSARY ACCESSORIES, CLIPS, LIGHT FIXTURE PROTECTION (TENT) REQUIRED FOR COMPLETE INSTALLATION.
- SPRINKLER SYSTEM TO BE IN ACCORDANCE WITH NFPA 13; LOCAL FIRE MARSHAL'S OFFICE; THE LANDLORD'S INSURANCE COMPANY AND TENANT'S INSURER.
- GYP. BOARD CEILING AT STOREFRONT IS NOT PERMITTED. STOREFRONT FINISHES ARE TO COVER CEILING OF RECESSED ENTRY VESTIBULE AND CEILING ON MALL SIDE OF STOREFRONT GLASS, TYP.
- SURFACE MOUNTED CEILING EQUIPMENT/COMPONENTS MUST BE CONCEALED ABOVE CEILING AS APPLICABLE WITH ACCESS AT ADJACENT HVAC DIFFUSER, IF NECESSARY TO BE ON CEILING PLANE MUST BE PREFINISHED TO COLOR MATCH FINISHED CEILING TYP.
- SURFACE MOUNTED TRACK LIGHT ARE REQUIRED TO BE IN RECESSED COVES, TYP.
- FIRE SPRINKLER HEADS MUST BE FULLY RECESSED, QUICK RESPONSE AND HAVE ESCUTCHEONS FINISHED TO MATCH COLOR OF FINISH CEILING, TYP.
- CEILING MUST BE FRAMED AND CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS.
- ACCESS PANELS ARE NOT PERMITTED UNLESS REQUIRED FOR ACCESS TO MALL SYSTEMS. ANY TENANT ITEMS REQUIRING AN ACCESS PANEL SHOULD PROVIDE ACCESS AT ADJACENT HVAC DIFFUSER, TYP.
- DISPLAY GRIDS ARE NOT ACCEPTABLE. MUST USE RECESSED DISPLAY TRACKS, TYP.
- WiFi ANTENNAS TO BE LOCATED ABOVE CEILING PLANE IN SALES AREA, TYP.
- SUBMIT LIGHT FIXTURE CUT SHEETS TO LANDLORD FOR REVIEW, TYP.
- CONNECTION TO LANDLORD METAL DECK IS NOT PERMITTED.
- EXPOSED DECK AND STRUCTURE TO BE DETAILED FOR EXPOSURE. ALL CONDUITS, DUCT WORK, AND PIPING SHALL BE GANGED TOGETHER AND RUN PARALLEL AND PERPENDICULAR TO LEASE LINES. ALL EQUIPMENT (GRID, PIPES, DUCTS, FIXTURES, ETC.) SHALL BE HUNG BY HANG RODS (NOT WIRE). DUCT WORK TO BE ROUND OR SPIRAL WITH NO EXTERIOR INSULATION.
- SEPARATE EMERGENCY LIGHT FIXTURES ARE NOT ACCEPTABLE. EMERGENCY LIGHTING MUST BE HANDLED WITH POWER INVERTERS TO TENANT LIGHT FIXTURES, AS MANY AS REQUIRED TO MEET CODE FOR ILLUMINATION. OR USE CONCEALED EMERGENCY LIGHT FIXTURES THAT ARE ONLY VISIBLE UPON TRIGGER.
- ROWAN TO SUPPLY ALL LIGHTING FIXTURES. EC TO INSTALL AND CONNECT ALL LIGHTING FIXTURES.
- EC TO FURNISH, INSTALL, AND CONNECT ALL LIGHTING CONTROLS/SWITCHES/OCCUPANCY SENSORS.



1 ELECTRICAL LIGHTING PLAN
 1/4" = 1'-0"

LIGHT FIXTURE SCHEDULE

SYMBOL	LABEL	MFR	COLOR TEMP.	FINISH	MODEL NUMBER / DESCRIPTION	VOLTS	WATTS	MOUNT	LOCATION / REMARKS
●	R	ELCO LIGHTING	4000K	WHITE	LED RECESSED DOWNLIGHT INSERT 4" MODEL: ELC-EL475CT5DW / 1500 LM/ CRI 90 / DIMMING: 0-10V / WET LOCATION	120V	18W	RECESSED	G.C TO VERIFY ELCO 4" PLY HOUSING MODEL TO BE USED FOR THE RECESSED FIXTURE INSTALLATION. SEE MANUFACTURER SPEC SHEET FOR MORE INFORMATION.
□	W1	BRUCK	4000K	WHITE	GX-WW-3PW-3CCT-90-SR-120-ELV-ECO-H-WH	120V	30W		ALTERNATE FLOOD AND SPOT TRACK HEADS. COORDINATE SECTION LENGTHS W/HEAD QUANTITIES PROVIDE JOINERS AND FEEDS AS REQUIRED.
□	L1	CONTECH	4000K	WHITE	CTL-9053-F-3C-D-P -TRACK HEAD LIGHTING	120V	20W	SUSPENDED AT 10'-0" AFF	
□	T1	CONTECH	-	WHITE	LT2, LT4, LT6, LT8 -TRACK SECTIONS	-	-		
□	L2-A	ELITE	4000K	WHITE	OLS-CM-LED	120V	28W	SUSPENDED AT 10'-0" AFF	CONFIRM LIGHT TEMPERATURE WITH OWNER.
□	L2-B	ELITE	4000K	WHITE	4-OEC-LED-3000L/4000L/5000L-DIM10-MVOLT-35K/40K/50K-85 -48" SUSPENDED LINEAR LIGHT	120V	28W	SUSPENDED AT 10'-0" AFF	CONFIRM LIGHT TEMPERATURE WITH OWNER.
○	P1	PROGRES S LIGHTING	-	WHITE	OPAL GLOBES - P4406-29	120V	-	SUSPENDED @ 84" AFF	CEILING CORD MOUNTED PENDANT LIGHT. WHITE OPAL GLASS, WHITE CORD.
○	P1	SATCO	4000K	FROST	SATCO S29837-9.8A19/OMNI/220/LED/35K LIGHT BULB	120V	9.8W	SUSPENDED @ 84" AFF	
○	WS	ARTEMID ES	4000K	WHITE	ATD720800	120V	4W	WALL MOUNTED 62" AFF.	
○	WE	ARTEMID ES	4000K	WHITE	R086313	120V	19W	WALL MOUNTED	
□	EM-1	EM-1	-	WHITE	APAL-WH-UI-WHITE CONCEALED CEILING MOUNTED EMERGENCY LIGHT	120V	-	CEILING RECESSED	
□	EM-2	EM-2	-	WHITE	EXIT-RMR-16	120V	7W	WALL MOUNTED	
○	EX-1	EX-1	-	-	RELZXT	-	-	WALL/ CEILING MOUNTED	W-120 MINUTE EMERGENCY BATTERY BACKUP

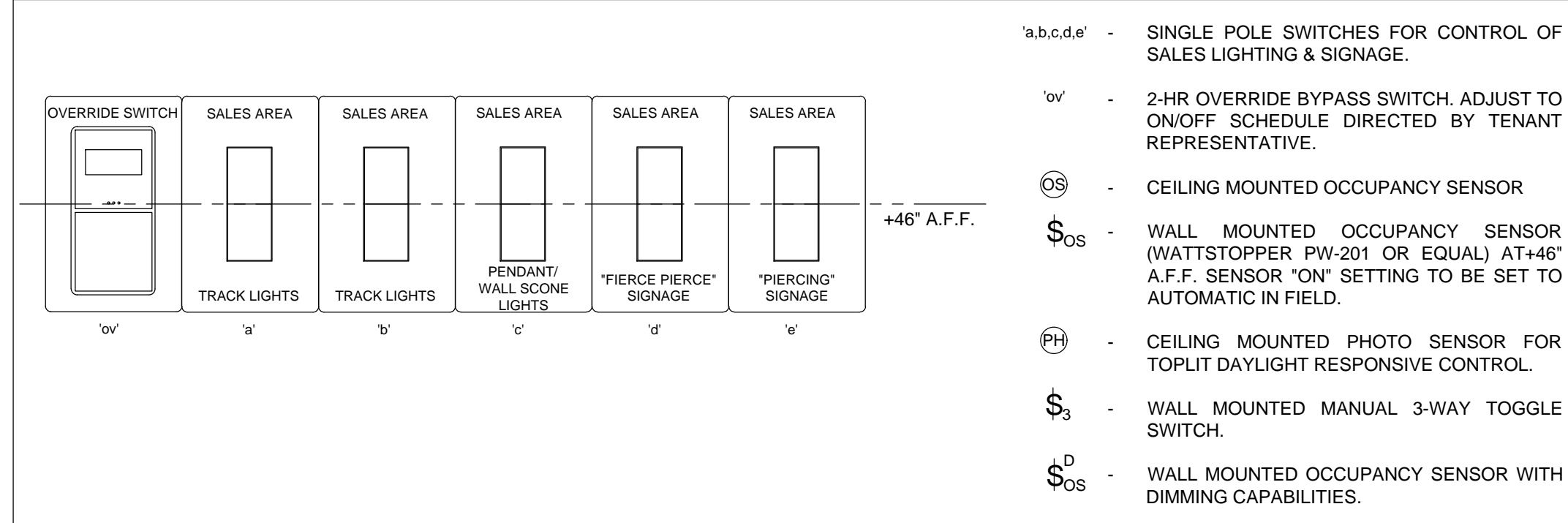
KEY NOTES

- ALL NEW EXIT SIGNS & EMERGENCY LIGHTS TO BE CONNECTED TO LOCAL LIGHTING CIRCUIT AHEAD OF SWITCHING.
- PROVIDE NEW RING MOTION DETECTOR NEAR ENTRY/EXIT DOOR. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION, MOUNTING HEIGHT, AND ELECTRICAL REQUIREMENT WITH ARCHITECT/ LOW VOLTAGE VENDOR IN FIELD. PRIOR TO ROUGH-IN AND PROVIDE AS REQUIRED.
- NEW MASTER SWITCH BANK LOCATION. CONTRACTOR TO PROVIDE AND COORDINATE EXACT LOCATION OF LIGHTING CONTROL SWITCHBANK. CONFIRM SWITCHBANK WILL FIT WITHIN THIS DESIGNATED AREA AND STACK MULTIPLE SWITCHBANK AT THIS LOCATION IF A SINGLE SWITCHBANK WILL NOT FIT WITHIN THIS DESIGNATED AREA. SWITCHES MUST BE LABELED TO INDICATE THE AREA SERVED. SEE DETAIL ON THIS SHEET FOR ADDITIONAL INFORMATION.
- COORDINATE FINAL SWITCH LOCATIONS THROUGHOUT THE PROJECT AREA WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
- THIS LIGHT FIXTURE SHALL NOT BE CONTROLLED BY AUTOMATIC MEANS ONLY AS PER NEC 110.26(D).
- EXHAUST FAN INTERLOCKED WITH LIGHT SWITCH. SEE MECHANICAL DRAWINGS FOR MORE INFORMATION AND SPECIFICATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT/OWNER IN FIELD.
- E.C TO FIELD VERIFY THE OPERABLE CONDITION OF EXISTING TIME CLOCK/ CONTACTOR. REUSE IF POSSIBLE OTHERWISE PROVIDE NEW TIME CLOCK AND LIGHTING CONTACTORS AS SHOWN. COORDINATE WITH THE ARCHITECT/OWNER FOR EXACT LOCATION & REQUIREMENT. BASE BID ACCORDINGLY.
- NEW CAMERAS/ SPEAKERS THROUGHOUT. G.C. TO VERIFY/CONFIRM LOCATION & ELECTRICAL POWER REQUIREMENTS WITH OWNER/ LV VENDOR PRIOR TO INSTALLATION AND ROUGH-IN. BASE BID ACCORDINGLY.

LEGEND

- NEW RING CAMERA
- ⊕ NEW RING MOTION DETECTOR
- ⊙ NEW SONOS SPEAKER

NEW LIGHTING SWITCHBANK

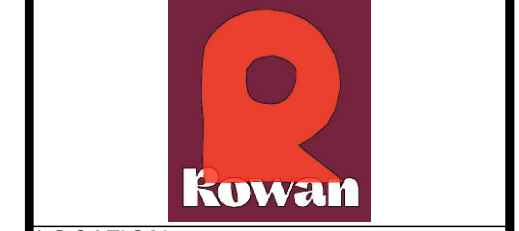


NOTE:
 GC TO PROVIDE WIRING FOR SPEAKERS AND NETWORK ETHERNET ONLY. ALL OTHER LOW VOLTAGE PROVIDED AND INSTALLED BY PARTNER VENDOR. GC TO COORDINATE WITH PROJECT ARCHITECT AND TENANT.

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY ROWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET
12.22.25	LL & CLIENT COMMENTS
DATE	REVISION



LOCATION:

PROJECT INFORMATION:
 PROJECT NUMBER: 13553-25
 DRAWN BY: NYE
 REVIEWED BY: NYE
 AREA: 1,252 SQ. FT.
 TITLE:

ELECTRICAL LIGHTING PLAN

SHEET NUMBER:

E3.0

ELECTRICAL PANEL SCHEDULE AND LOAD SUMMARY

ELECTRICAL PANEL SCHEDULE																
PANELBOARD		B		VOLTAGE		120 / 208 V		PHASE		WIRE		4				
PANEL TYPE		MCB		MAINS		100A		BUS RATING		225A		V.I.F				
NEMA TYPE ENCLOSURE		1		MOUNTING		SURFACE		OPTIONS		EXISTING PANEL		1 2				
CKT. NO.	EQT TAG	CKT TAG	DESCRIPTION	POLE	WIRE SIZE	BKR. SIZE	TOTAL WATTS	PHASE	TOTAL WATTS	BKR. SIZE	WIRE SIZE	POLE	DESCRIPTION	CKT TAG	EQT TAG	CKT. NO.
1	TC	(N)	STOREFRONT SIGN	1	12	20	1,200	A	1,500	20	12	1	SHOW WINDOW RECEPTACLE	(N)	TC	2
3	TC/C2/a,b	(N)	SALES TRACK LIGHT	1	12	20	680	B	1,500	20	12	1	SHOW WINDOW RECEPTACLE	(N)	TC	4
5	TC/C2/c	(N)	SALES WALL SCENCE/PENDANT	1	12	20	50	C	1,000	20	12	2	WATER HEATER (WH-1)	(N)		6
7	TC	(N)	STOREFRONT LIGHTS	1	12	20	148	A	1,000	20	12	1	DRINKING FOUNTAIN	(N)		8
9		(N)	PRIVATE PERICING/BOH/RESTROOM	1	12	20	482	B	200	20	12	1	AUTOCLAVE	(N)		10
11	TC/C2/d	(N)	"FIERCE PIERCE" SIGNAGE	1	12	20	1,200	C	500	20	12	1	ULTRASONIC	(N)		12
13	TC/C2/e	(N)	"PIERCING" SIGNAGE	1	12	20	1,200	A	800	20	12	1	RESTROOM RCPT	(N)		14
15	GFCI	(N)	MICROWAVE/FRIDGE	1	12	20	1,800	B	180	20	12	1	RING/SONOS RCPT	(N)		16
17		(N)	INTERNET AND SECURITY OUTLET	1	12	20	900	C	720	20	12	1	RING/SONOS RCPT	(N)		18
19		(N)	TIME CLOCK	1	12	20	200	A	900	20	12	1	RING/SONOS RCPT	(N)		20
21		(N)					1,680	B	500	20	12	1	RING KEYPAD	(N)		22
23		(N)	VAV-1	3	12	20	1,680	C	200	20	12	1	PRINTER CART RCPT	(N)		24
25		(N)					1,680	A	360	20	12	1	CASHWRAP RECEPTACLE	(N)		26
27		(N)	SCR-1	1	12	20	100	B	360	20	12	1	JEWELLERY CONSOLE RECEPTACLE	(N)	TC/C2/f	28
29		(N)	SE-1	1	12	20	1,380	C		20	12	1	SPARE	(N)		30

ALL PHASES TO BE BALANCED TO WITHIN 7%
 A= 8,988 WATTS
 B= 7,482 WATTS
 C= 7,630 WATTS

(E) EXISTING TO REMAIN
 (N) NEW CIRCUIT
 GFCI GROUND FAULT CURRENT INTERRUPTER
 IG CIRCUITS WITH ISOLATED GROUND
 TC CIRCUITS ON TIMECLOCK
 TC/C CIRCUITS ON LIGHTING CONTACTOR VIA TIME CLOCK
 C BREAKER LOCK
 a,b,c SWITCHES CONTROLLING LIGHTS

TOTAL CONNECTED LOAD	24,100	WATTS	67	AMPS
TOTAL DEMAND LOAD	26,090	WATTS	73	AMPS

ELECTRICAL LOAD SUMMARY					
DESCRIPTION	NEC CONNECTED KW	VOLT	PHASE	NEC DEMAND FACTOR	NEC DEMAND KW
LIGHTING- 120V	0.7	120	1	1.25	0.9
TRACK LIGHTS	0.7	120	1	TRACK LENGTH	0.9
RECEPTACLES	5.9	120	1	>10kW=10*[0.5*(kW-10)]	5.9
STOREFRONT SIGN	1.2	120	1	1.25	1.5
SAV OUTLETS	3.0	120	1	1.25	3.8
SEWAGE EJECTOR	1.4	120	1	1.00	1.4
VAV	5.0	208	3	1.00	5.0
INTERIOR SIGN	2.4	120	1	1.25	3.0
HOT WATER HEATER	2.0	208	1	1.00	2.0
KITCHEN EQUIPMENTS	1.8	120	1	1.00	1.8
TOTALS	24.1				26.1

NOTES:
 * USE GREATER VALUE OF THE TWO CATEGORIES.
 ** 125% OF THE LARGEST MOTOR OR COMPRESSOR IN SYSTEM APPLIED ONLY ON ONE UNIT.
 *** N.E.C. ARTICLE 220-12 REQUIREMENT (200 VA PER FOOT OF SHOW WINDOW)
 MINUS ACTUAL SHOW WINDOW LIGHTING kVA.

N.E.C. DEMAND kVA x 1,000	MINIMUM FEEDER AMPERAGE
26.1 x 1000 = 26,090	31.4 AMPS USE (EXISTING) 100AMP FEEDER FROM EXISTING SWITCHBOARD
480 x 1.732 = 831	

PANEL SCHEDULE GENERAL NOTES

- ALL CIRCUITING SHOWN IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY CIRCUITING OF THE EXISTING DEVICES ON FIELD AND INFORM ENGINEER FOR DISCREPANCIES.
- ELECTRICAL CONTRACTOR TO VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE.
- ALL EXISTING TO REMAIN ELECTRICAL DEVICES/EQUIPMENTS SHALL BE CONNECTED TO RESPECTIVE NEW/EXISTING PANELS. E.C. TO VERIFY EXACT DETAILS & CIRCUIT NUMBER ON FIELD.
- ELECTRICAL CONTRACTOR TO COORDINATE WITH THE MANUFACTURER OF EQUIPMENT FOR THE WIRE SIZE & RATING OF MOCP BEFORE THE COMMENCEMENT OF WORK.
- ELECTRICAL CONTRACTOR TO COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENT OF PLUMBING/MECHANICAL EQUIPMENTS WITH RESPECTIVE SYSTEM CONTRACTOR/OWNER/ARCHITECT.
- ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT CIRCUIT, CIRCUIT NUMBER IN FIELD & ADJUST / MODIFY CIRCUITING AS REQUIRED.

EXISTING PANELBOARD KEYED NOTES

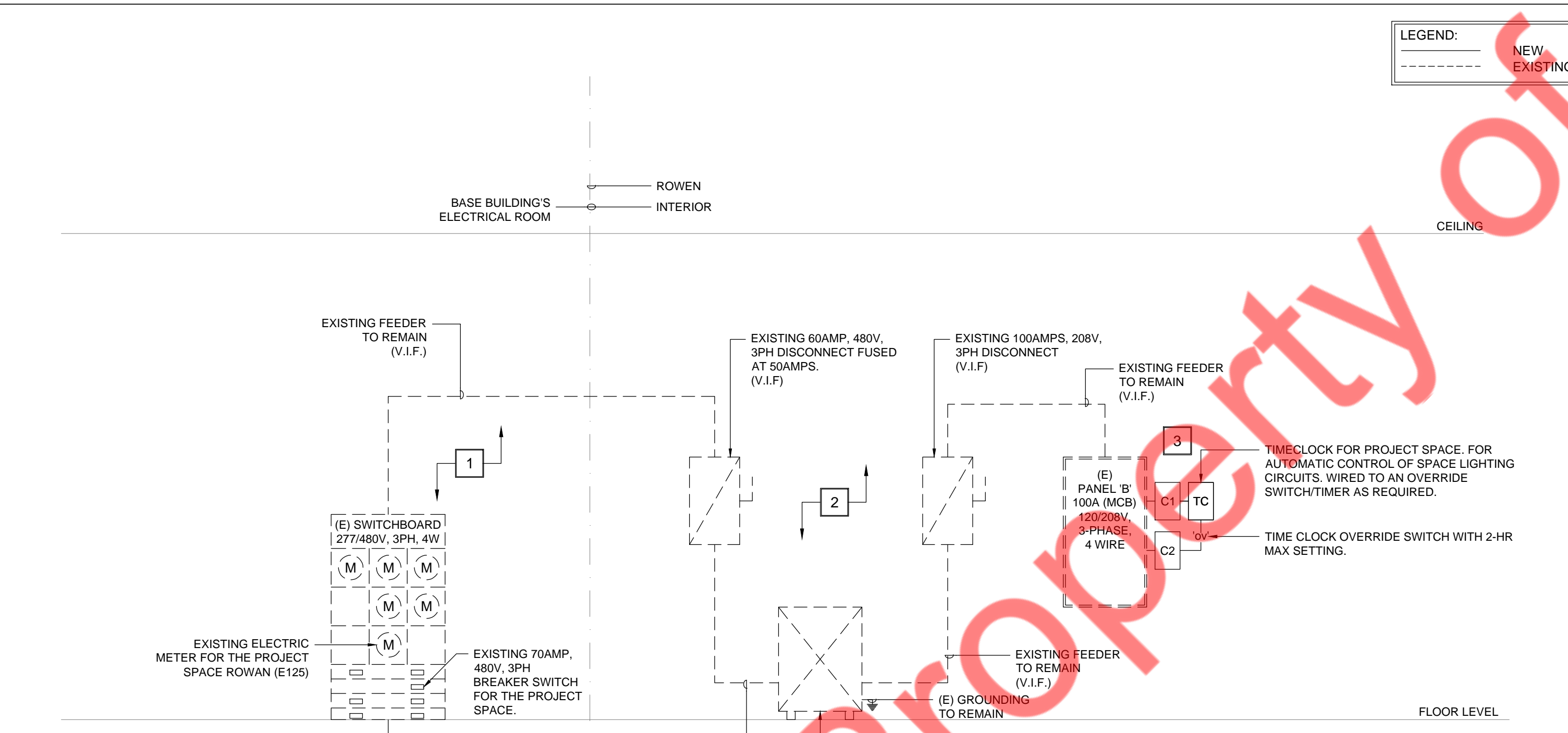
- NEW BREAKERS MAY BE REQUIRED FOR USE IN THE EXISTING PANELBOARD TO MATCH RATING INDICATED IN THE PANEL SCHEDULE. PRIOR TO BID/PRICING, THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EXISTING-TO-REMAIN PANELBOARD MANUFACTURER AND MODEL NUMBER TO ENSURE THAT REPLACEMENT BREAKERS ARE AVAILABLE. WHERE BREAKER AVAILABILITY ISSUES ARISE, NOTIFY THE PROJECT MANAGER PRIOR TO BID/PRICING.
- DESIGNATED CIRCUIT NUMBER SHOWN ON THE PANEL SCHEDULE FOR A CERTAIN LOAD, MAY BE DIFFERENT THAN THE ACTUAL CIRCUIT NUMBER IN THE EXISTING PANELBOARD. ALL EXISTING-TO-REMAIN ELECTRICAL LOADS SHALL REMAIN CONNECTED TO THE SAME BREAKER AND CIRCUIT DESIGNATION. AVAILABLE SPARES AND SPACES SHALL BE UTILIZED TO FEED THE NEW LOADS.

CODE NOTE PER NEC 408.4: EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS ITS CLEAR, EVIDENT, AND SPECIFIC PURPOSE OR USE. THE IDENTIFICATION SHALL INCLUDE SUFFICIENT DETAIL TO ALLOW EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS. CIRCUIT DIRECTORY SHALL BE LOCATED ON THE FACE OR INSIDE THE PANEL DOOR IN THE CASE OF THE PANELBOARD.

CONTRACTOR TO VERIFY ANY EXISTING CIRCUITS TO REMAIN, MAINTAIN AS REQUIRED. CONTRACTOR TO MAKE UNUSED BRANCH CIRCUIT BREAKER SPARE AND AVAILABLE FOR NEW CIRCUIT.

ALL ELECTRICAL WORK SHALL BE DESIGNED PER NEW HAMPSHIRE ELECTRICAL CODE 2023 (NFPA 70, 2023), AND IECC 2018.

ELECTRICAL RISER DIAGRAM



VERIFY THE FOLLOWING PRIOR TO BID/ PRICING:
 - EXISTING CONDUIT AND FEEDERS SIZE BETWEEN TENANT SPACE AND LANDLORD SWITCHBOARD.
 - EXISTING MAIN SERVICE DISCONNECT RATING.
 - EXISTING METER.

IF THE EXISTING SERVICE DISCONNECT AND FEEDERS ARE RATED FOR LESS THAN THE RATING SHOWN ON THIS RISER, NOTIFY THE PROJECT MANAGER AND ENGINEER IMMEDIATELY PRIOR TO SUBMITTING BID/ PRICING PACKAGE SO DRAWINGS CAN BE REVISED AND UPDATED ACCORDINGLY

CONTRACTOR TO VERIFY EXISTING CONDUIT DURING BIDDING STAGE AND REPORT TO TENANT ARCHITECT ANY DISCREPANCIES THAT IS DIFFERENT THAN SHOWN ON PLANS.

LANDLORD REVIEW COMMENTS (GG):
 The re-use of any existing construction, finishes, equipment, or electrical, plumbing or HVAC systems currently in the space is conditional upon it being appropriate for re-use. Any existing condition or equipment to be re-used must be restored to like new conditions. The Landlord makes no warranty on the re-use of any existing condition in the space.

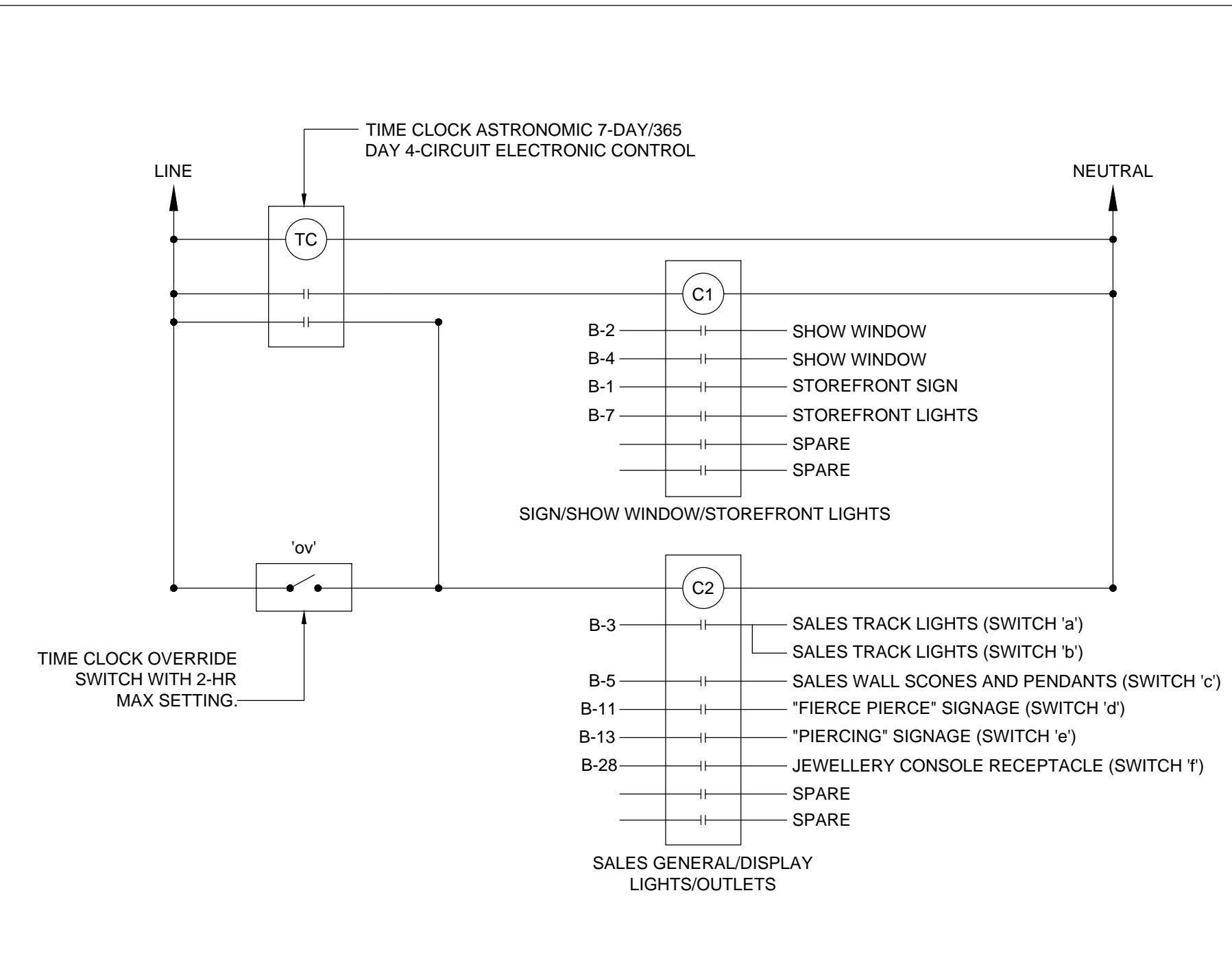
RISER DIAGRAM GENERAL NOTES

- HVAC CIRCUIT BREAKERS TO BE "HACR" TYPE WHERE REQUIRED BY EQUIPMENT NAMEPLATE PER N.E.C.
- BALANCE ALL PANELS AND ELECTRICAL EQUIPMENT, UNDER LOAD CONDITIONS, TO +7% BETWEEN PHASES; A/B, B/C, C/A REGARDLESS OF CIRCUITING INDICATED. PROVIDE BALANCE SHEET TO CONSTRUCTION MANAGER AT PUNCHLIST.
- PROPER CLEARANCE MUST BE MAINTAINED ABOUT ELECTRICAL EQUIPMENT PER N.E.C. FIELD VERIFY EXACT MOUNTING SPACE AVAILABLE IN ELECTRICAL ROOM/AREA PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT.
- MAKE ALL FINAL ELECTRICAL CONNECTIONS FOR A COMPLETE ELECTRICAL DISTRIBUTION SYSTEM. ALL CONNECTIONS/DISCONNECTIONS TO LANDLORDS/UTILITIES SERVICE EQUIPMENT SHALL BE AS DIRECTED BY LANDLORDS/UTILITIES SITE REPRESENTATIVE. TENANT GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TERMINATION/DETERMINATION EXPENSES.
- SYSTEM SHALL BE GROUNDED TO THE MAIN BUILDING'S GROUNDING SYSTEM.
- DISCONNECT SWITCHES AND PANELS SHALL BE INSTALLED ON PLYWOOD BACKERBOARDS.
- TENANT CONTRACTOR MUST VERIFY ELECTRICAL SERVICE, SUB-FEED WIRING AND PANELS PRIOR TO START OF TENANT'S ELECTRICAL WORK. TENANT GENERAL CONTRACTOR SHALL MAKE APPLICATION TO THE LOCAL UTILITY FOR CONTINUED METERED ELECTRIC SERVICE IN THE TENANT'S NAME. TENANT GENERAL CONTRACTOR SHALL CONFIRM ALL LOCAL UTILITY GUIDELINES AND REQUIREMENTS PRIOR TO BID, SHALL INCLUDE THE COSTS OF THESE REQUIREMENTS IN THE BID, AND SHALL COMPLY WITH THEM DURING CONSTRUCTION. AVAILABLE FAULT CURRENT AT SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT PER NATIONAL ELECTRICAL CODE ARTICLE 110.24.
- CONTRACTOR SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.
- CONTRACTOR SHALL COORDINATE WITH BASE BUILDING FOR THE EXACT LOCATION OF THE EXISTING SWITCH GEAR AND EXACT POWER DISTRIBUTION.
- CONTRACTOR SHALL VERIFY OPERABLE CONDITION INFIELD OF ALL EXISTING TO REMAIN ELECTRICAL DEVICES/EQUIPMENTS AND REPLACE WITH NEW IF FOUND INOPERABLE.

RISER DIAGRAM KEYED NOTES

- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH BASE BUILDING /LANDLORD /OWNER FOR EXACT POWER DISTRIBUTION, LOCATION PRIOR TO COMMENCING ANY WORK. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.
- EXISTING ELECTRICAL PANEL & ALL ELECTRICAL EQUIPMENTS FOR THE PROJECT SPACE SHALL REMAIN. CONTRACTOR SHALL VERIFY THE EXACT RATING, VOLTAGE, PHASE, OPERABLE CONDITION & LOCATION WITH ARCHITECT/OWNER IN FIELD. INFORM ENGINEER IF FOUND ANY DISCREPANCY. BASE BID ACCORDINGLY.
- ELECTRICAL CONTRACTOR TO FIELD VERIFY THE OPERABLE CONDITION OF EXISTING TIME CLOCK AND LIGHTING CONTACTORS FOR THE PROJECT SPACE. REUSE IF POSSIBLE OTHERWISE PROVIDE NEW AS SHOWN. BASE BID ACCORDINGLY.

TIME CLOCK AND LIGHTING CONTACTOR DETAILS

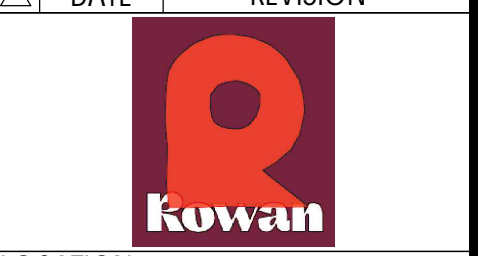


TIME CLOCK SCHEDULE:
 CONTRACTOR TO SET TIME CLOCK SETTINGS AND VERIFY WITH OWNER.
 1. DURING SET "OFF" TIME LIGHTING TO BE CONTROLLED BY A 2-HR MANUAL OVERRIDE SWITCH.

CONTRACTOR'S NOTES:

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY ROWAN CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

DATE	ISSUE
09.22.25	PRELIMINARY SET
10.01.25	CLIENT COMMENTS
10.16.25	CLIENT REVIEW
10.31.25	LL REVIEW & BID SET
12.29.25	PERMIT SET
12.22.25	LL & CLIENT COMMENTS
	REVISION



LOCATION:

PROJECT INFORMATION:
 PROJECT NUMBER: 13553-25
 DRAWN BY: NYE
 REVIEWED BY: NYE
 AREA: 1,252 SQ. FT.

TITLE:
ELECTRICAL PANELBOARD AND RISER DIAGRAM

SHEET NUMBER:

E4.0