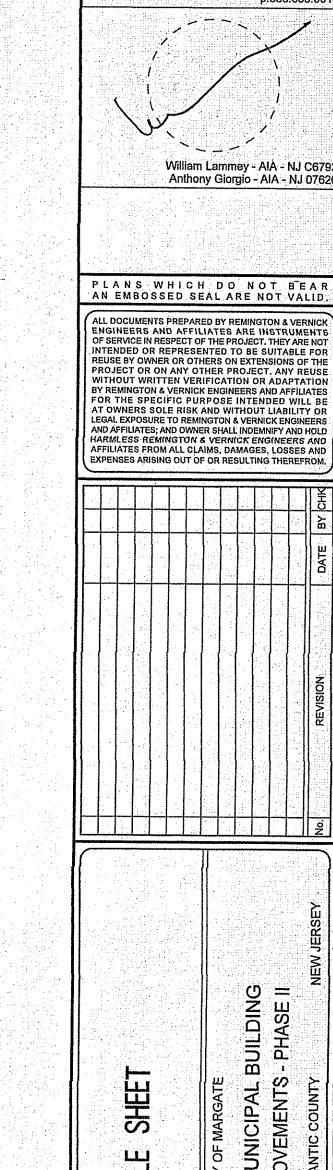
MARGATE MUNICIPAL BUILDING ORRICE IMPROVEMENTS PHASE II



PROJECT LOCATION WAP

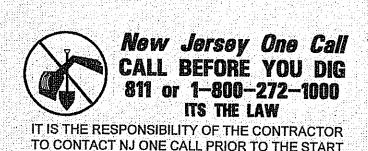
g han de light de light de trade. H <mark>an de lighte de trade de trade de trade.</mark>	는 사람들이 되는 것이 없는 경험을 가지 않는데 되었다. 그는 것이 되었다는데 되었다는데 되었다는데 되었다는데 되었다는데 되었다는데 되었다. 그는 것이 되었다는데 사람들이 되었다는데 사람들이 되었다. 사용화사들의 회사들의 사람들이 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면 되었다면
DWG. No.	DRAWING TITLES
T-1.0	TITLE SHEET
T-1.1	ARCHITECTURAL LEGEND
A-1.0	DEMOLITION AND PROPOSED FLOOR PLANS
A-1.1	PROPOSED REFLECTED CEILING PLANS
A-2.0	DETAILS
M−1.0	MECHANICAL COVER SHEET
M-2.1	MECHANICAL FLOOR PLAN
M-3.1	MECHANICAL HYDRONIC PIPING FLOOR PLAN
M-4.1	MECHANICAL DETAILS
M-5.1	MECHANICAL CONTROL DIAGRAMS AND SCHEDULES
E-1.0	ELECTRICAL COVER SHEET
E-2.1	ELECTRICAL LIGHTING AND POWER FLOOR PLANS
E-4.1	ELECTRICAL SINGLE LINE AND SCHEDULES



REMINGTON

ENGINEERS

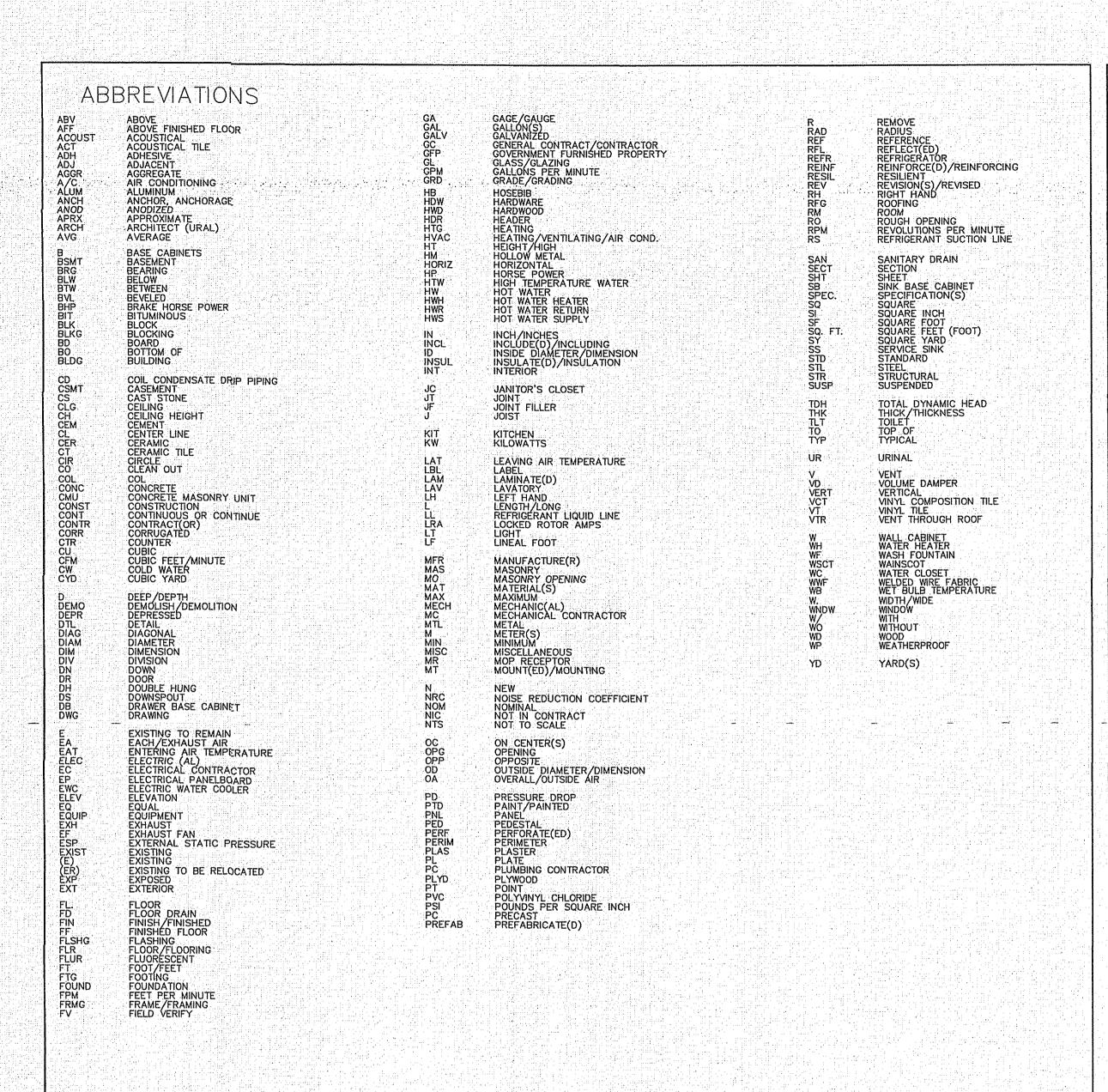
& VERNICK

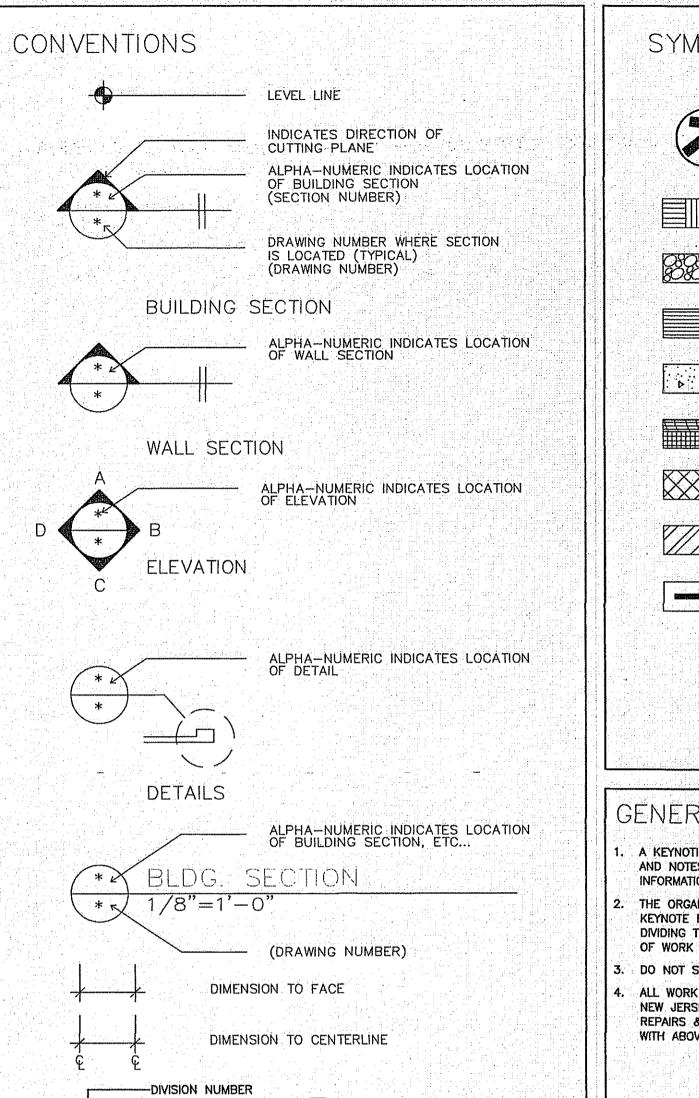


MUNICIPAL BUILDING

CITY OF MARGATE ATLANTIC COUNTY, NEW JERSEY

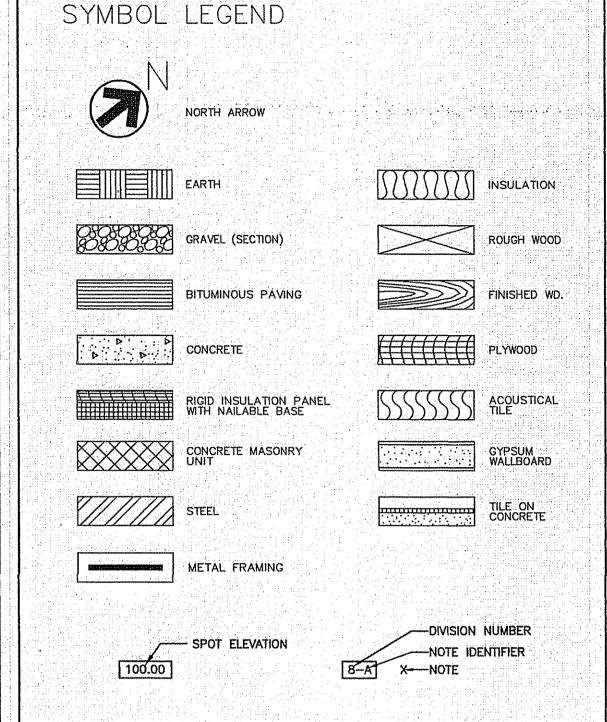
SEPTEMBER, 2024





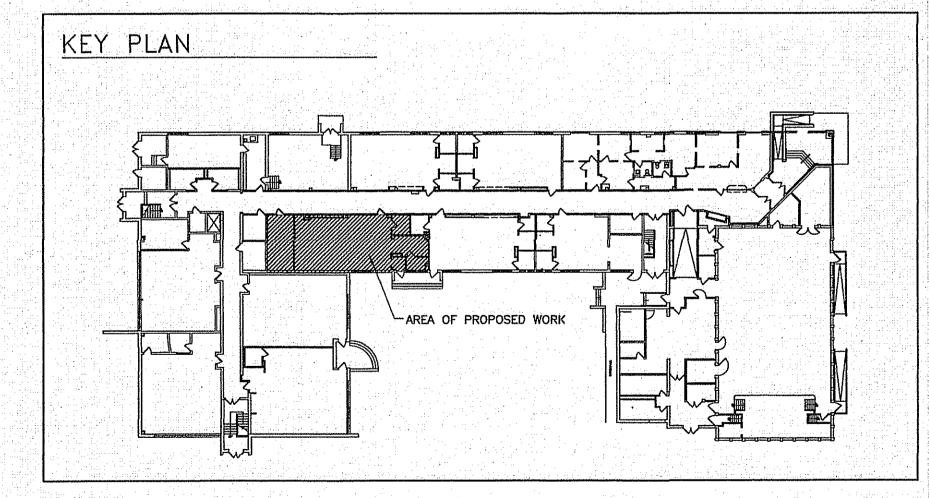
WINDOW TYPES

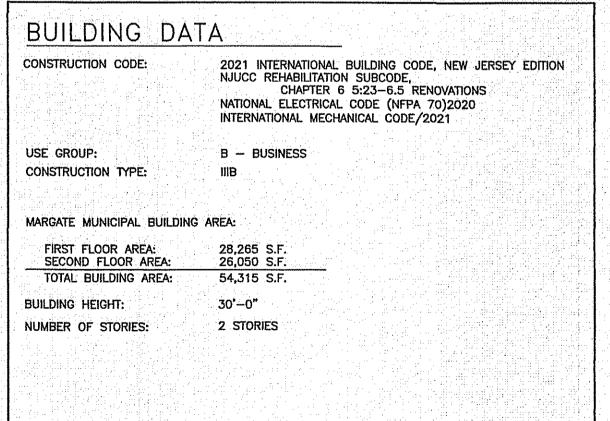
DOOR NUMBERS

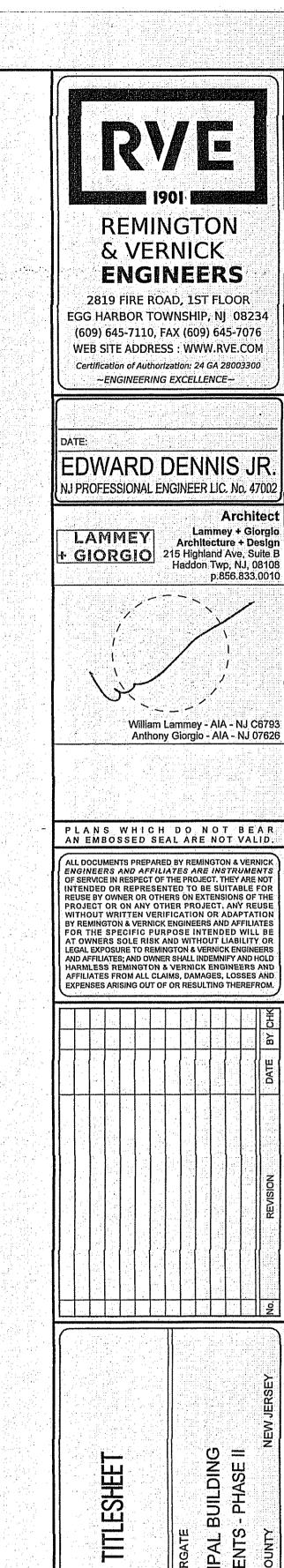




- A KEYNOTING SYSTEM IS USED ON THE DRAWINGS FOR MATERIALS REFERENCES AND NOTES. REFER TO THE KEYNOTE LEGEND ON THE DRAWING FOR THE INFORMATION WHICH RELATES TO EACH KEYNOTE ON THE RESPECTIVE DRAWING
- THE ORGANIZATION OF THE KEYNOTING SYSTEM ON THE DRAWINGS, WITH THE KEYNOTE REFERENCE NUMBERS, SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTOR'S OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.
- - ALL WORK INDICATED ON THESE DOCUMENTS HAS BEEN DESIGNED TO MEET THE NEW JERSEY UNIFORM CONSTRUCTION CODE, REHABILITATION SUBCODE CHAPTER 6 WITH ABOVE MENTIONED CODES.

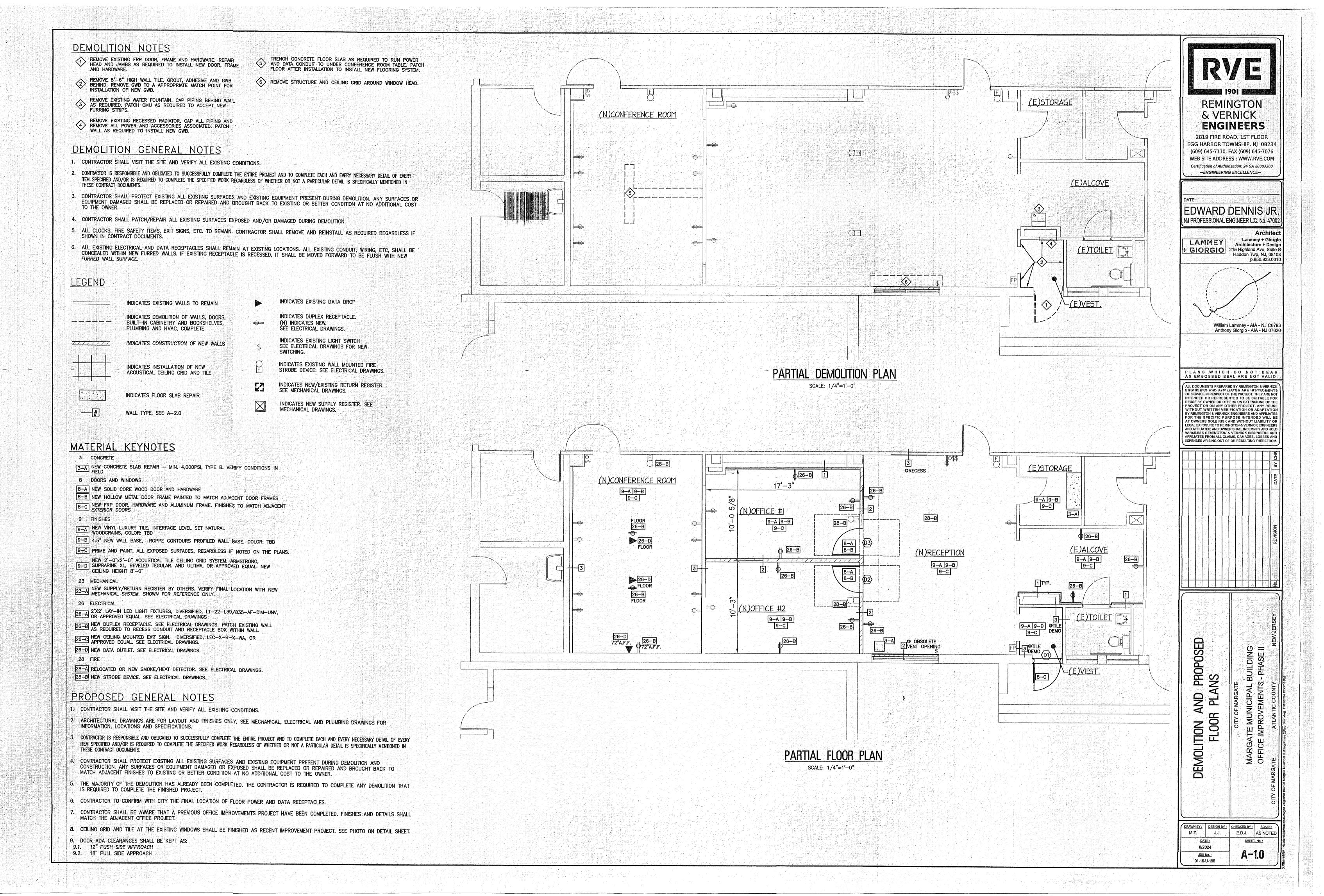


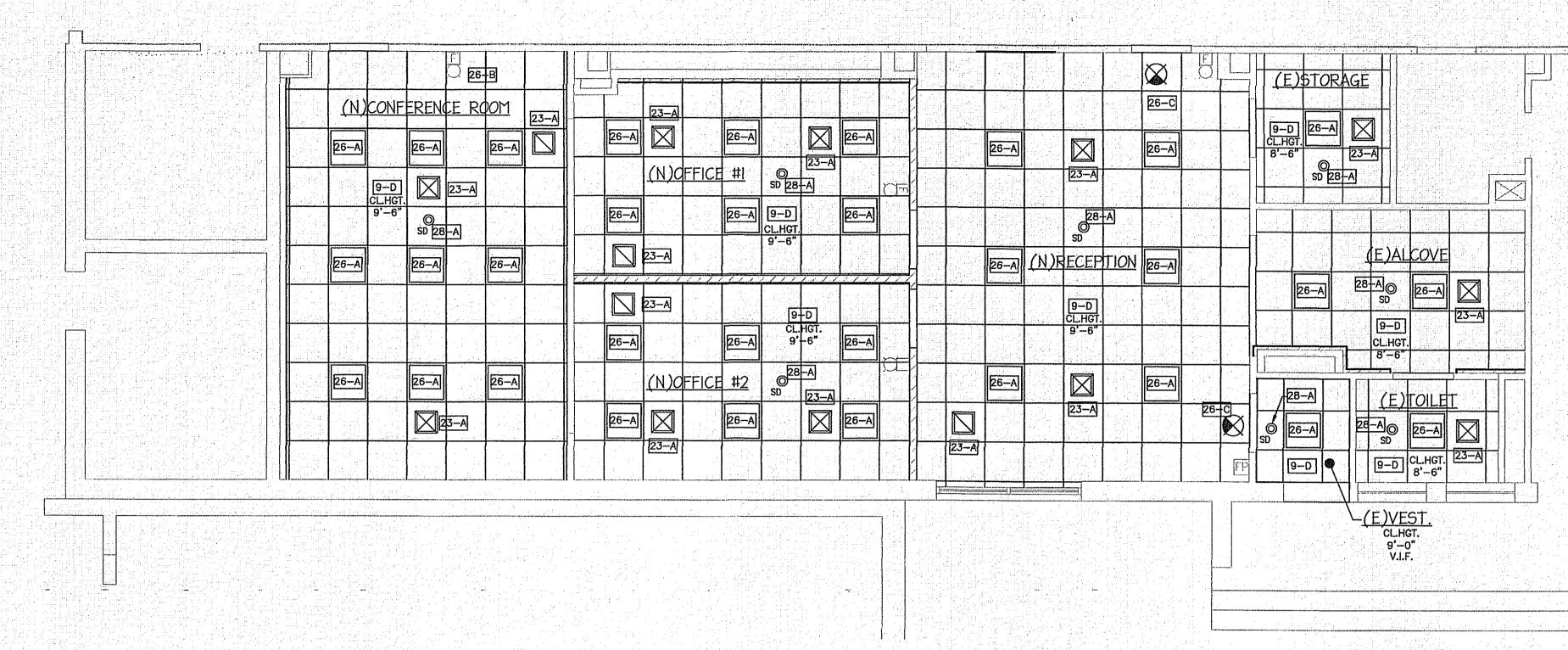




ARCHITECTURAL

DRAWN BY: DESIGN BY: CHECKED BY: SCALE: M.Z. J.J. E.D.J. AS NOTED SHEET No.: 8/2024 JOB No. :





PARTIAL REFLECTED CEILING PLAN

SCALE: 1/4"=1'-0"

PROPOSED GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS.

FINISHES AND DETAILS SHALL MATCH THE ADJACENT OFFICE PROJECT.

- 2. ARCHITECTURAL DRAWINGS ARE FOR LAYOUT AND FINISHES ONLY, SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR INFORMATION, LOCATIONS AND SPECIFICATIONS.
- 3. CONTRACTOR IS RESPONSIBLE AND OBLIGATED TO SUCCESSFULLY COMPLETE THE ENTIRE PROJECT AND TO COMPLETE EACH AND EVERY NECESSARY DETAIL OF EVERY ITEM SPECIFIED AND/OR IS REQUIRED TO COMPLETE THE SPECIFIED WORK REGARDLESS OF WHETHER OR NOT A PARTICULAR DETAIL IS SPECIFICALLY MENTIONED IN THESE CONTRACT DOCUMENTS.
- 4: CONTRACTOR SHALL PROTECT EXISTING ALL EXISTING SURFACES AND EXISTING EQUIPMENT PRESENT DURING DEMOLITION AND CONSTRUCTION. ANY SURFACES OR EQUIPMENT DAMAGED OR EXPOSED SHALL BE REPLACED OR REPAIRED AND BROUGHT BACK TO MATCH ADJACENT FINISHES TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE MAJORITY OF THE DEMOLITION HAS ALREADY BEEN COMPLETED. THE CONTRACTOR IS REQUIRED TO COMPLETE ANY DEMOLITION THAT IS REQUIRED TO COMPLETE THE FINISHED PROJECT.
- 6. CONTRACTOR TO CONFIRM WITH CITY THE FINAL LOCATION OF FLOOR POWER AND DATA RECEPTACLES.
- 7. CONTRACTOR SHALL BE AWARE THAT A PREVIOUS OFFICE IMPROVEMENTS PROJECT HAVE BEEN COMPLETED.
- 8. CEILING GRID AND TILE AT THE EXISTING WINDOWS SHALL BE FINISHED AS RECENT IMPROVEMENT PROJECT. SEE PHOTO ON DETAIL SHEET.
- 9. DOOR ADA CLEARANCES SHALL BE KEPT AS:
- 9.1. 12" PUSH SIDE APPROACH 9.2. 18" PULL SIDE APPROACH

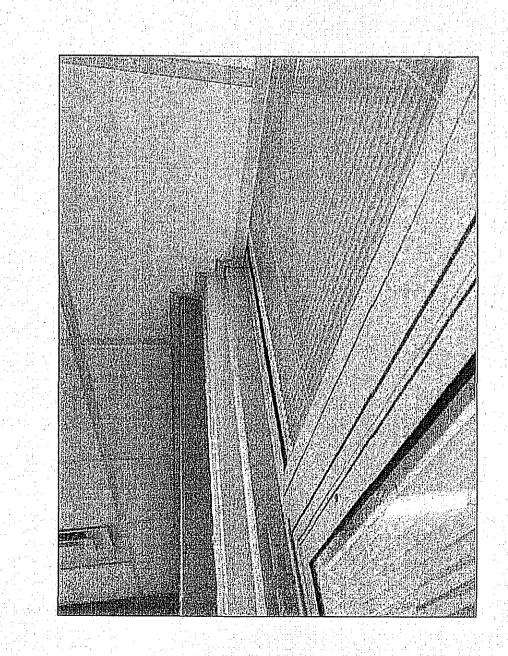
	INDICATES EXISTING WALLS TO REMAIN		INDICATES EXISTING DATA DROP
	INDICATES DEMOLITION OF WALLS, DOORS, BUILT—IN CABINETRY AND BOOKSHELVES, PLUMBING AND HVAC, COMPLETE	—	INDICATES DUPLEX RECEPTACLE. (N) INDICATES NEW. SEE ELECTRICAL DRAWINGS.
	INDICATES CONSTRUCTION OF NEW WALLS	\$	INDICATES EXISTING LIGHT SWITCH SEE ELECTRICAL DRAWINGS FOR NEW SWITCHING.
	INDICATES INSTALLATION OF NEW ACOUSTICAL CEILING GRID AND TILE	B	INDICATES EXISTING WALL MOUNTED FIRE STROBE DEVICE. SEE ELECTRICAL DRAWINGS.
	INDICATES FLOOR SLAB REPAIR	[2]	INDICATES NEW/EXISTING RETURN REGISTER. SEE MECHANICAL DRAWINGS.
<u></u>	WALL TYPE, SEE A-2.0		INDICATES NEW SUPPLY REGISTER. SEE MECHANICAL DRAWINGS.

<u>LEGEND</u>

MATERIAL KEYNOTES

- 3 CONCRETE
- 3-A] NEW CONCRETE SLAB REPAIR MIN. 4,000PSI, TYPE B. VERIFY CONDITIONS IN
- 8 DOORS AND WINDOWS
- B-A NEW SOLID CORE WOOD DOOR AND HARDWARE
- 8-B NEW HOLLOW METAL DOOR FRAME PAINTED TO MATCH ADJACENT DOOR FRAMES

 8-C NEW FRP DOOR, HARDWARE AND ALUMINUM FRAME. FINISHES TO MATCH ADJACENT EXTERIOR DOORS
- 9 FINISHES
- 9-A NEW VINYL LUXURY TILE, INTERFACE LEVEL SET NATURAL WOODGRAINS, COLOR: TBD
- 9-B 4.5" NEW WALL BASE, ROPPE CONTOURS PROFILED WALL BASE. COLOR: TBD
- 9-C PRIME AND PAINT, ALL EXPOSED SURFACES, REGARDLESS IF NOTED ON THE PLANS.
- NEW 2'-0"x2'-0" ACOUSTICAL TILE CEILING GRID SYSTEM. ARMSTRONG, SUPRARINE XL, BEVELED TEGULAR. AND ULTIMA, OR APPROVED EQUAL. NEW CEILING HEIGHT 8'-0"
- 23 MECHANICAL
- NEW SUPPLY/RETURN REGISTER BY OTHERS. VERIFY FINAL LOCATION WITH NEW MECHANICAL SYSTEM. SHOWN FOR REFERENCE ONLY.
- 26 ELECTRICAL
- 26-A 2'X2' LAY-IN LED LIGHT FIXTURES, DIVERSIFIED, LT-22-L39/835-AF-DIM-UNV, OR APPROVED EQUAL. SEE ELECTRICAL DRAWINGS
- NEW DUPLEX RECEPTACLE. SEE ELECTRICAL DRAWINGS, PATCH EXISTING WALL AS REQUIRED TO RECESS CONDUIT AND RECEPTACLE BOX WITHIN WALL.
- 26-C NEW CEILING MOUNTED EXIT SIGN. DIVERSIFIED, LEC-X-R-X-WA, OR APPROVED EQUAL. SEE ELECTRICAL DRAWINGS.
- 26-D NEW DATA OUTLET. SEE ELECTRICAL DRAWINGS.
 28 FIRE
- 28-A RELOCATED OR NEW SMOKE/HEAT DETECTOR. SEE ELECTRICAL DRAWINGS.
 28-B NEW STROBE DEVICE. SEE ELECTRICAL DRAWINGS.



ACOUSTICAL CEILING GRID/WINDOW



WEB SITE ADDRESS: WWW.RVE.COM

Certification of Authorization: 24 GA 28003300

~ENGINEERING EXCELLENCE~

DATE:

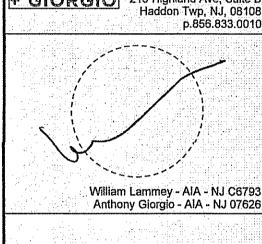
EDWARD DENNIS JR.

NJ PROFESSIONAL ENGINEER LIC: No. 47002

Architect

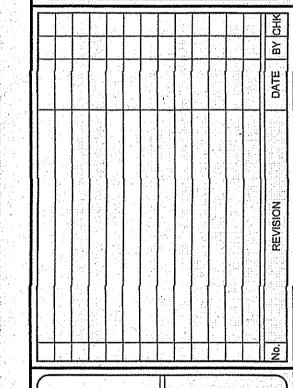
LAMMEY
+ GIORGIO

215 Highland Ave, Suite B
Haddon Twp, NJ, 08108
p.856.833.0010



PLANS WHICH DO NOT BEAR AN EMBOSSED SEAL ARE NOT VALID.

ALL DOCUMENTS PREPARED BY REMINGTON & VERNICK ENGINEERS AND AFFILIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY REMINGTON & VERNICK ENGINEERS AND AFFILIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO REMINGTON & VERNICK ENGINEERS AND AFFILIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS REMINGTON & VERNICK ENGINEERS AND AFFILIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.



PROPOSED REFLECTED CEILING
PLAN

CITY OF MARGATE

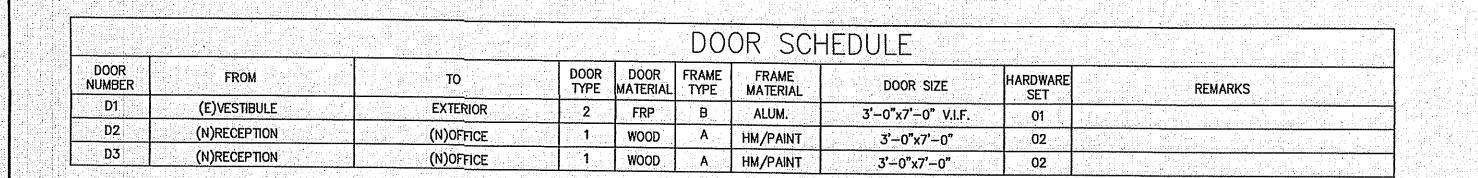
OFFICE IMPROVEMENTS - PHASE II

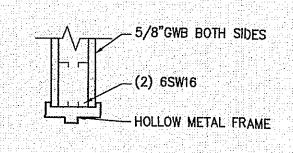
 DRAWN BY:
 DESIGN BY:
 CHECKED BY:
 SCALE:

 M.Z.
 J.J.
 E.D.J.
 AS NOTED

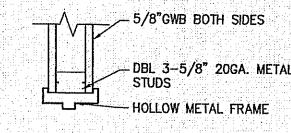
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 JOB No.:
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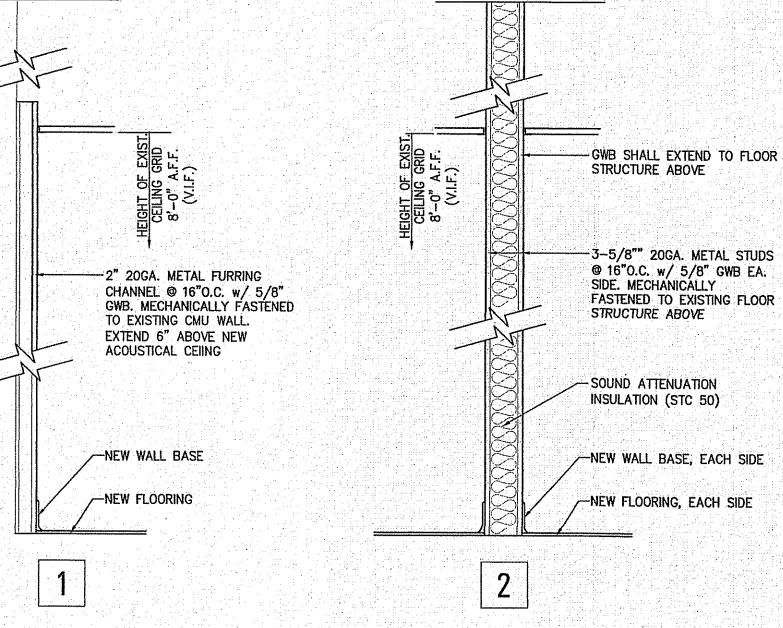


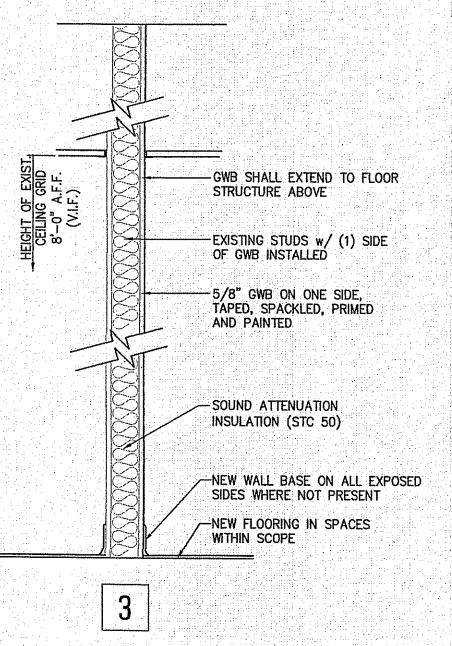
LINTEL DETAIL & HEAD DETAILS



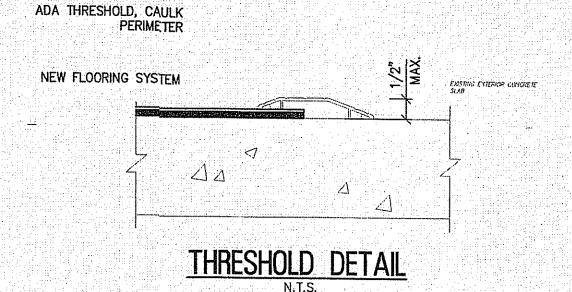


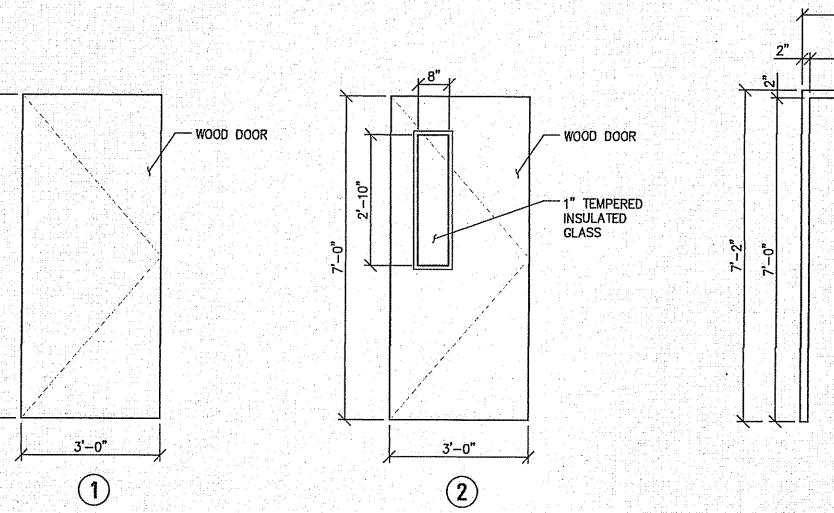


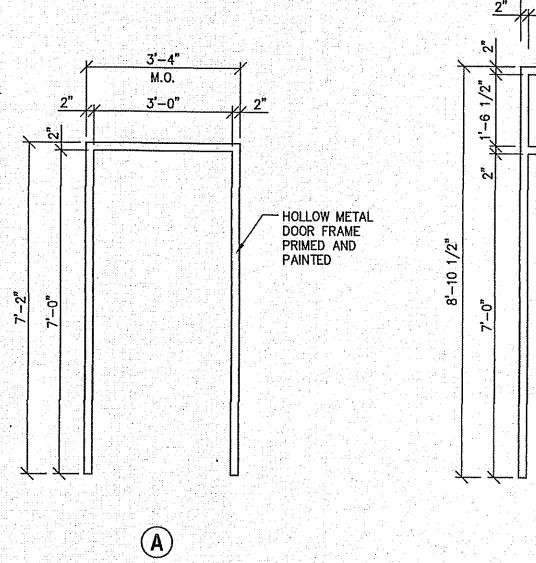


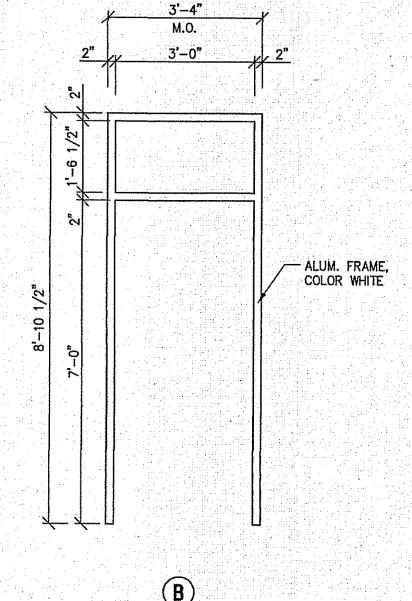


TYPICAL WALL TYPES









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MATERIAL KEYNOTES

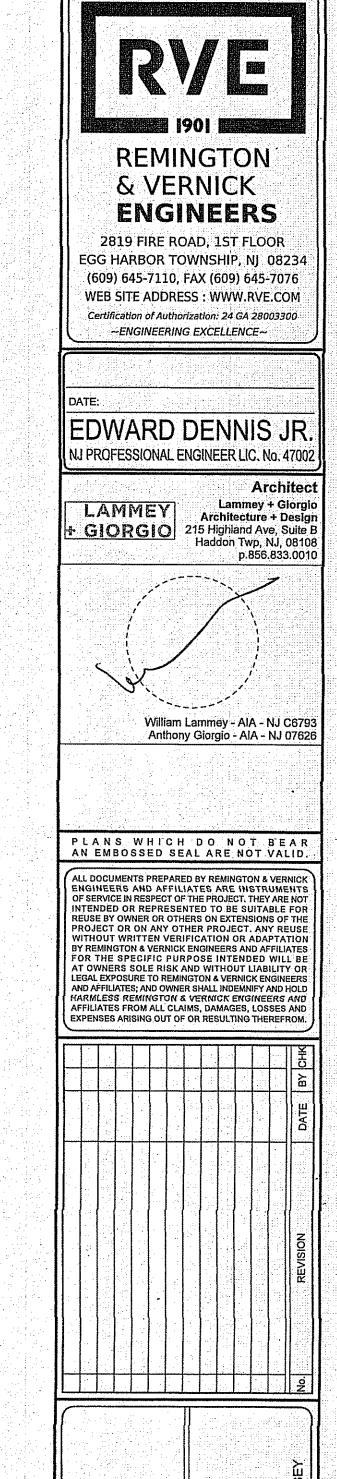
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 28-B NEW STROBE DEVICE. SEE ELECTRICAL DRAWINGS.



		<u> </u>
DETAILS	CITY OF MARGATE MARGATE MUNICIPAL BUILDING	OFFICE IMPROVEMENTS - PHASE II CITY OF MARGATE ATLANTIC COUNTY
	NG	E II NEW JERSEY

DRAWN BY: DESIGN BY: CHECKED BY: SCALE;
M.Z. J.J. E.D.J. AS NOTED

DATE: SHEET No.:

8/2024

JOB No.:
01-16-U-196

GENERAL NOTES

- (ALL GENERAL NOTES, SYMBOLS & ABBREVIATIONS MAY NOT BE USED ON THIS PROJECT)
- 1. EXAMINE JOB SITE AND VERIFY ALL SITE CONDITIONS PRIOR TO SIGNING CONTRACT. BRING ANY DISCREPANCY BETWEEN THE CONTRACT DOCUMENTS AND THE ACTUAL FIELD CONDITIONS TO THE ATTENTION OF THE ARCHITECT/ENGINEER.

 2. THE LOCATION OF EXISTING UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE
- 2. THE LOCATION OF EXISTING UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PAY FOR AND REPAIR ALL DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES UNLESS OTHERWISE INDICATED.
- 3. THE DRAWINGS ARE DIAGRAMMATIC. COORDINATE IN THE FIELD, WITH THE ARCHITECT AND WITH ALL TRADES, THE EXACT LOCATION OF EQUIPMENT, FIXTURES, VALVES, THERMOSTATS, ETC. AND ROUTING OF PIPING, DUCTWORK, CONDUIT, ETC.
- 4. PERFORM WORK IN ACCORDANCE WITH RULES, REGULATIONS, STANDARDS, CODES, ORDINANCES, AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES HAVING JURISDICTION AND BE RESPONSIBLE FOR COMPLIANCE THEREWITH.
- 5. OBTAIN ALL NECESSARY APPROVALS, PERMITS AND INSPECTIONS. PAY ALL ASSOCIATED FEES.
- 6. GUARANTEE ALL SYSTEMS AND WORK FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. GUARANTEE REFRIGERATION COMPRESSORS FOR FIVE (5) YEARS.
- 7. BEFORE STARTING FABRICATION/ WORK SUBMIT TO ARCHITECT/ENGINEER FOR APPROVAL SIX (6) COMPLETE SETS OF SHOP DRAWINGS AND PRODUCT DATA FROM MANUFACTURERS, SUPPLIERS, ETC.
- 8. ALL MATERIALS SHALL BE NEW AND OF COMMERCIAL GRADE AND BEAR THE UNDERWRITER'S LABEL WHERE APPLICABLE.
- 9. LOCATE ALL EXISTING UTILITIES AND MAKE SERVICEABLE CONNECTIONS TO SAME.
- 10. OBTAIN APPROVAL FROM THE BUILDING OWNER'S REPRESENTATIVE PRIOR TO ANY INTERRUPTION OF BUILDING SYSTEMS.

 COORDINATE ACCEPTABLE WORKING HOURS WITH SAME.
- 11. REMOVE ALL ABANDONED EQUIPMENT, FIXTURES, DUCTWORK, PIPING, CONDUIT, ETC. CAP ALL PIPING ABANDONED IN
- 12. ALL CUTTING AND PATCHING IS BY RESPECTIVE CONTRACTORS, CORE DRILL OR SAW CUT ALL MASONRY AND RESTORE ALL SURFACES TO ORIGINAL CONDITION. PAINTING AND FINISHING ARE BY THE GENERAL CONTRACTOR.

 13. PIPING AND SPECIALTIES
- a. ALL PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE ANSI SAFETY CODE AND BE FREE FROM ALL DEFECTS.
 b. PROVIDE SLEEVES FOR PIPING THROUGH MASONRY, FIRE RATED WALLS AND SMOKE PARTITIONS. SLEEVES SHALL BE 22 GAUGE OR HEAVIER STEEL, SCHEDULE 40 IN BEARING WALLS. SIZE SLEEVES TO ACCOMMODATE PIPE INSULATION WHERE APPLICABLE. PROVIDE UL LISTINGS FOR SLEEVE PACKING.
- c. PROVIDE PIPE HANGERS TO SUPPORT PIPING FROM BUILDING STRUCTURE TO MAINTAIN REQUIRED SLOPE, PROVIDE FOR EXPANSION AND CONTRACTION, ISOLATE VIBRATION AND RELIEVE EQUIPMENT AND SPECIALTIES FROM STRAIN. SPACE HANGERS ACCORDING TO APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS.
- d. IDENTIFY ALL PIPING WITH SEMIRIGID OR ADHESIVE PLASTIC INDICATION MARKERS, EXCEPT WITHIN INACCESSIBLE CHASES. MARKERS SHALL SHOW DIRECTION OF FLOW. MARKERS SHALL BE LOCATED NEXT TO EACH VALVE, AT EACH BRANCH, ON BOTH SIDES OF PIPE PASSAGE THROUGH WALLS AND ON ALL HORIZONTAL PIPING AT 20' MAXIMUM INTERVALS.
- e. ROUTE ALL PIPING CONCEALED IN WALLS, ABOVE CEILING AND BELOW FLOOR UNLESS OTHERWISE NOTED. RUN PARALLEL WITH BUILDING LINES.
- f. PROVIDE DRAIN VALVES & PLUGS AT ALL LOW POINTS SUCH THAT PIPING SYSTEMS CAN BE DRAINED. PROVIDE MANUAL AIR VENT VALVES AT ALL HIGH POINTS IN THE SYSTEM.

 g. PROVIDE BACKFLOW PREVENTION DEVICES AT ALL EQUIPMENT AS REQUIRED BY CODE. UNLESS STATED OTHERWISE PROVIDE CHECK VALVE AND SHITT-OFF VALVE BOTH PATED FOR SERVE POINT STRAIN OF PARKET ON A PROVIDED BY CODE.
- PROVIDE CHECK VALVE AND SHUT-OFF VALVE BOTH RATED FOR 250°F DOWN STREAM OF BACKFLOW PREVENTER ON MAKE UP WATER LINE FOR HYDRONIC HEATING HOT WATER SYSTEMS.

 h. PROVIDE DIELECTRIC UNIONS AT ALL JUNCTIONS OF DISSIMILAR METALS.
- I. ALL SHUTOFF VALVES, CONTROL VALVES, ETC. ARE FULL LINE SIZE UNLESS OTHERWISE NOTED.
- j. INSTALL PIPING ON WARM SIDE OF BUILDING INSULATION. DO NOT INSTALL PIPING WHERE SUBJECT TO FREEZING. k. ALL PIPING INSULATION SHALL BE CONTINUOUS THROUGH WALLS AND CEILING OPENINGS, SLEEVES AND PIPE HANGERS.
- 1. TEST ALL PIPING IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS, AND INSPECTOR'S REQUIREMENTS PRIOR TO INSULATION OR ENCLOSING.
- m. BALANCE ALL HYDRONIC DEVICES FOR FLOW RATES NOTED ON DRAWINGS. PROVIDE BALANCING REPORT TO ARCHITECT/ENGINEER.
- n. UNLESS STATED OTHERWISE IN THE CONTRACT SPECIFICATIONS, PROVIDE A MINIMUM OF ONE (1) ONE AND A HALF (1-1/2") INCH THICK LAYER OF PREFORMED MINERAL FIBER PIPE INSULATION WITH PREFORMED MINERAL FIBER FITTINGS ON ALL DOMESTIC HOT AND COLD WATER PIPING, HYDRONIC HEATING AND CHILLED WATER SUPPLY AND RETURN PIPING, REFRIGERANT PIPING AND CONDENSATE DRAIN PIPING. INCLUDE A FIELD APPLIED FOIL AND PVC JACKET WITH VAPOR RETARDER AS PART OF THE INSULATION ASSEMBLY.
- O. UNLESS STATED OTHERWISE ALL UNDERGROUND PIPING SHALL BE INSTALLED WITH POLYETHYLENE ENCASEMENT (PE) FOR CORROSION RESISTANCE.
- P. UNLESS STATED OTHERWISE ALL FUEL GAS VENT PIPING TO BE SA-53GrB CARBON STEEL. ALL VENT PIPING TO BE PRIMED AND FINISH PAINTED IN A COLOR ACCEPTABLE TO THE OWNER.
 14. DUCTWORK AND SPECIALTIES
- a. ALL DUCTWORK TO BE IN ACCORDANCE WITH S.M.A.C.N.A. "H.V.A.C. DUCT CONSTRUCTION STANDARDS", LATEST EDITION. PRESSURE CLASS "B".
- b. ALL DUCTWORK TO BE CONSTRUCTED OF GALVANIZED SHEETMETAL.
- c. PROVIDE 45 DEGREE COLLARS TO ALL BRANCH CONNECTIONS. PROVIDE TURNING VANES AT ALL ELBOWS 12"x6" OR LARGER. PROVIDE STANDARD RADIUS ELBOWS AT ALL ELBOWS SMALLER THAN 12"x6".
- d. PROVIDE ALL VOLUME DAMPERS REQUIRED TO BALANCE THE SYSTEMS. INSTALL VOLUME DAMPERS AT BRANCH TAKE-OFFS FROM TRUNK.
- e. PROVIDE CURTAIN TYPE FIRE DAMPERS WHEREVER DUCT PENETRATES FIRE RATED PARTITIONS. UNITS SHALL PROVIDE NOT LESS THAN 90% FREE AREA. PROVIDE ACCESS DOORS AT ALL FIRE DAMPERS.
- f. TEST DUCT SYSTEMS FOR AIR TIGHTNESS AND ABSENCE OF AUDIBLE LEAKS BEFORE ENCLOSURE.
- g. BALANCE ALL AIR DEVICES FOR AIR QUANTITIES NOTED ON DRAWINGS. PROVIDE BALANCING REPORT TO ARCHITECT/ENGINEER.
- h. FLEXIBLE DUCTS: ALL FLEXIBLE DUCTS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE INTERNATIONAL MECHANICAL CODE.

 i. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE

ALL PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY

- AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.

 j. PROVIDE FIRE DAMPERS IN THE DUCTWORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND THE CONTRACT DOCUMENTS.

 k. UNLESS STATED OTHERWISE IN THE CONTRACT SPECIFICATIONS, PROVIDE A MINIMUM OF ONE (1) TWO AND ONE HALF (2-1/2)
- INCH THICK LAYER OF MINERAL FIBER BLANKET INSULATION ON ALL NEW INDOOR ROUND AND RECTANGULAR SUPPLY AIR, EXHAUST AIR, RETURN AIR AND OUTDOOR AIR DUCTWORK. INCLUDE A FIELD APPLIED PAPER AND FOIL JACKET WITH VAPOR RETARDER AS PART OF THE INSULATION ASSEMBLY.

 1. UNLESS STATED OTHERWISE IN THE CONTRACT SPECIFICATIONS, PROVIDE A MINIMUM OF ONE (1) TWO (2") INCH THICK LAYER OF MINERAL FIBER BOARD INSULATION ON ALL NEW OUTDOOR ROUND AND RECTANGULAR SUPPLY AIR, EXHAUST AIR, RETURN
- AIR AND OUTDOOR AIR DUCTWORK. INCLUDE A WEATHERPROOF FIELD APPLIED 22 GAUGE ALUMINUM JACKET WITH VAPOR RETARDER AS PART OF THE INSULATION ASSEMBLY. COORDINATE FINISH COLOR OF EXTERIOR JACKET WITH THE OWNER.

 TO UNLESS OTHERWISE NOTED ALL EXPOSED SUPPLY, RETURN AND EXHAUST AIR DUCTWORK SHALL BE PRIMED AND PAINTED.
- COLOR TO BE DETERMINED BY THE ENGINEER OWNER.

 15. EQUIPMENT
- a. VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
- b. ALL MECHANICAL EQUIPMENT AND APPLIANCE INSTALLATIONS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE INTERNATIONAL MECHANICAL CODE, AS WELL AS WITH MANUFACTURER'S RECOMMENDATIONS, c. ALL ELECTRICAL POWER WIRING IS BY ELECTRICAL CONTRACTOR. ALL CONTROL WIRING IS BY RESPECTIVE
- CONTRACTOR.

 d. PROVIDE OWNER WITH OPERATION AND MAINTENANCE MANUALS FOR INSTALLED EQUIPMENT. INCLUDE CONTRACTOR'S, SUPPLIER'S AND MANUFACTURER'S NAMES, ADDRESS AND TELEPHONE NUMBERS.
- e. SUPPLY STARTERS AND DISCONNECTS WITH EQUIPMENT.

 f. PROVIDE CONCRETE PADS FOR FLOOR MOUNTED EQUIPMENT. PADS SHALL BE A MINIMUM 4" HIGH AND SHALL
- EXTEND 6" BEYOND EQUIPMENT ON ALL SIDES.

 q. LABELING: ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BEAR LABELING IN COMPLIANCE WITH THE LATEST
- VERSION OF THE INTERNATIONAL MECHANICAL CODE.

 h. UNLESS NOTED OTHERWISE, ALL HYDRONIC SYSTEMS BOILER/ CHILLED WATER SHALL BE PROVIDED WITH A NEW
- BLADDER TYPE EXPANSION TANK AS REQUIRED. TANK TO BE SIZED FOR EACH SYSTEM BASED UPON TANK MANUFACTURER'S RECOMMENDATIONS.

 i. UNLESS OTHERWISE NOTED CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL PROPYLENE GLYCOL ANTI
- I. UNLESS OTHERWISE NOTED CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL PROPYLENE GLYCOL ANTI FREEZE FOR ALL HYDRONIC HEATING AND COOLING SYSTEMS. THE CONTRACTOR SHALL SUPPLY A 35% CONCENTRATION OF PROPYLENE GLYCOL IN SOLUTION FOR CHILLED WATER COOLING SYSTEMS AND A 25% CONCENTRATION OF PROPYLENE GLYCOL IN SOLUTION FOR HOT WATER HEATING SYSTEMS. PROPYLENE GLYCOL ANTI FREEZE SHALL BE COMPATIBLE WITH ALL MATERIALS OF THE HYDRONIC SYSTEM (PIPING, VALVES, PUMPS, CHILLER, BOILER, ETC.) AS WELL AS ALL TERMINAL EQUIPMENT.
- 16. AUTOMATIC TEMPERATURE AND SAFETY CONTROLS
- a. PROVIDE ALL WIRING, RELAYS, CONTACTS, TRANSFORMERS, ETC. REQUIRED TO DELIVER A COMPLETE OPERABLE SYSTEM.
- b. THERMOSTATS SHALL BE 24 HOUR/7 DAY PROGRAMMABLE WITH FAN "OFF/ON/AUTO" AND SYSTEM "HEAT/COOL/AUTO/OFF" SWITCHES. VERIFY OPERATION OF ALL FUNCTIONS.

17. FIRE PROTECTION

- a. THE QUANTITY AND LOCATION OF SPRINKLERS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND INTENDED FOR SCHEMATIC PURPOSES ONLY. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING AND COMMISSIONING ALL NECESSARY SPRINKLERS, PIPE, EQUIPMENT AND APPURTENANCES NECESSARY, IN FULL ACCORDANCE WITH THE NFPA AND APPROVED BY THE ENGINEER AND ALL AUTHORITIES HAVING JURISDICTION.
- b. THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED DESIGN DRAWINGS, HYDRAULIC CALCULATIONS, PIPING, FITTINGS, SPRINKLERS, ALARM AND MONITORING DEVICES, SIGNAGE AND APPURTENANCES COMPLETE AND IN FULL ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND NFPA 13 & 14. ALL WRING OF DEVICES SHALL BE DONE BY ELECTRICAL CONTRACTOR.
- c. ALL SPRINKLER HEADS SHALL BE LOCATED AT THE CENTER POINT OF ALL ACOUSTICAL CEILING TILES.
 18. ALL EXISTING PLUMBING, HVAC AND ELECTRICAL EQUIPMENT AND MATERIALS THAT ARE EITHER EXPOSED OR CONCEALED AND THAT INTERFERE WITH ALTERED EXISTING BUILDING ARRANGEMENTS AND NEW SYSTEMS SHALL BE REMOVED, RELOCATED, REROUTED, OR ABANDONED. DRAWINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT ARE AFFECTED. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS; HOWEVER, THEIR REMOVAL, RELOCATION, REROUTING AND ABANDONMENT SHALL
- ALSO BE INCLUDED IN THIS WORK.

 19. EXISTING CONCEALED PLUMBING, HVAC AND ELECTRICAL EQUIPMENT AND MATERIALS THAT ARE TO REMAIN BUT BECOME EXPOSED DUE TO RENOVATION WORK, SHALL BE RELOCATED AND RECONNECTED AS PART OF THIS WORK.
- 20. PLUMBING DRAWINGS ARE DIAGRAMMATIC. ALL DEVICES & FITTINGS MAY NOT BE SHOWN ON THE DRAWINGS FOR CLARITY. PROVIDE CLEANOUTS NEAR THE BASE OF ALL VERTICAL WASTE & STORM WATER STACKS IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL STANDARD PLUMBING CODE.
- 21. GUARDS SHALL BE PROVIDED WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE AND ROOF HATCH OPENINGS ARE LOCATED WITHIN 12 FEET OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THEN 30 INCHES ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THEN 30 INCHES BEYOND EACH END OF SUCH APPLIANCES, EQUIPMENT, FANS, COMPONENTS AND ROOF HATCH OPENINGS AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THEN 42 INCHES ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH—DIAMETER SPHERE AND SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE.
- 22. PROVIDE FOR ALL MECHANICAL EQUIPMENT FAN AND MOTOR PULLEYS, SHEAVES, BELTS AND LABOR REQUIRED TO BALANCE THE NEW AND EXISTING MECHANICAL EQUIPMENT TO THE SPECIFIED SUPPLY, RETURN, EXHAUST AND OUTSIDE AIR FLOWS SHOWN ON THE CONTRACT DOCUMENTS AT NO ADDITIONAL COST TO THE OWNER. THE TESTING, ADJUSTING AND BALANCING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED PULLEYS, SHEAVES AND BELTS EVEN IF THEY ARE NOT PROVIDED WITH THE EQUIPMENT BY THE MANUFACTURER.
- 23. UNLESS OTHERWISE NOTED CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL ALL CONNECTION/ TRANSITION DUCTS BETWEEN NEW HVAC EQUIPMENT (UNIT VENTILATORS, BLOWER COILS, FAN COILS, AIR HANDLERS, ETC.) AND NEW OR EXISTING OUTSIDE AIR LOUVERS. CONTRACTOR IS ALSO RESPONSIBLE FOR REINFORCING ANY OUTSIDE AIR LOUVER OPENING THAT IS CREATED OR ENLARGED TO ACCOMMODATE THE NEW INSTALLATION.
- 24. UNLESS SPECIFICALLY DIRECTED OTHERWISE THE CONTRACTOR SHALL SUBMIT PRE—DEMOLITION/ PRE—CONSTRUCTION VIDEOS AND/ OR PHOTOGRAPHS OF THE EXISTING CONDITIONS IN THE PROPOSED AREA OF WORK TO THE ENGINEER FOR REVIEW PRIOR TO START OF DEMOLITION/ CONSTRUCTION WORK.

MECHANICAL ABBREVIATIONS

ADJ. AFF AHU AP	ACCESS DOOR ADJACENT ABOVE FINISHED FLOOR AIR HANDLER UNIT ACCESS PANEL	LRG LSR MD MH MSB	LINEAR SUPPLY REGISTER MOTORIZED DAMPER MANHOLE MOP SERVICE BASIN
	BOILER BELOW FINISHED FLOOR BACKFLOW PREVENTOR BOTTOM OF DUCT BOTTOM OF LOUVER CONDENSATE CAST IRON CEILING DIFFUSER CEILING EXHAUST GRILLE CEILING EXHAUST REGISTER	MUA MV NC NO	MAKE-UP AIR UNIT MIXING VALVE (THERMOSTATIC) NORMALLY CLOSED NORMALLY OPEN
C Cl	CONDENSATE CAST IRON	OA P	NOT TO SCALE OUTSIDE AIR PUMP
CD CEG CER	CEILING DIFFUSER CEILING EXHAUST GRILLE CEILING EXHAUST REGISTER	RA RD	RETURN AIR ROOF DRAIN
CEH	CUBIC FEET PER HOUR	RPRP	REDUCED PRESSURE BACKELOW PREVE
COG	CLEANOUT ON GRADE CONDENSATE PIPING	S=02' SA	SINK/SANITARY PIPING SLOPE SUPPLY AIR
CONT CRG CRR	CONTINUED CEILING RETURN GRILLE CEILING RETURN REGISTER	SD SH SP	SPLITTER DAMPER SHOWER SPRINKLER PIPING
CSV	CIRCUIT SETTER VALVE COOLING TOWER COOLING TOWER RETURN	SS	SOIL STACK STORM PIPING STEAM PIPING
CTS CU CUH	COOLING TOWER SUPPLY CONDENSING UNIT CABINET UNIT HEATER	SV SW T	STACK VENT SAFEWASTE TUB
OWO	COLD WATER CURRING	TAG TOD TP	TRANSFER AIR GRILLE TOP OF DUCT TRAP PRIMER
DFU DN	COLD WATER SUPPLY CONDENSER WATER SUPPLY/RETURN DRINKING FOUNTAIN DRAINAGE FIXTURE UNITS DOWN EXHAUST AIR FLECTRIC RASEROARD HEATER	TR TWR	TRANSITION TEMPERED WATER RETURN
EF	FXHALIST FAN	1114	UNIT HEATER
FWC	ELECTRIC WATER COOLER ELECTRIC WATER HEATER EXISTING	. 1112	URINAL VENT PIPING VARIABLE AIR VOLUME
FC FCO	FLEXIBLE CONNECTION/FAN COIL FLOOR CLEANOUT	VD ViF	VOLUME DAMPER VERIFY IN FIELD
FD FRG FRR	FLOOR DRAIN FLOOR RETURN GRILLE FLOOR RETURN REGISTER	WC	VENT THRU ROOF WATER CLOSET
G GV HB	GAS PIPING GRAVITY VENTILATOR HOSE BIBB	WCO WEG WER	WALL CLEANOUT WALL EXHAUST GRILLE WALL EXHAUST REGISTER
HD HP HW	HAND DAMPER HEAT PUMP HOT WATER	WHA WHY WMS	WATER HAMMER ARRESTOR WALL HYDRANT WIREMESH SCREEN
HWC	HANDICAPPED WATER CLOSET	WRG WRR	WALL RETURN GRILLE
HWH HWR HWS	HOT WATER HEATER HOT WATER RETURN HOT WATER SUPPLY	WSFU WSG WSR	WALL SUPPLY FIXTURE UNIT

HEAT EXCHANGER

LINEAR BAR GRILLE

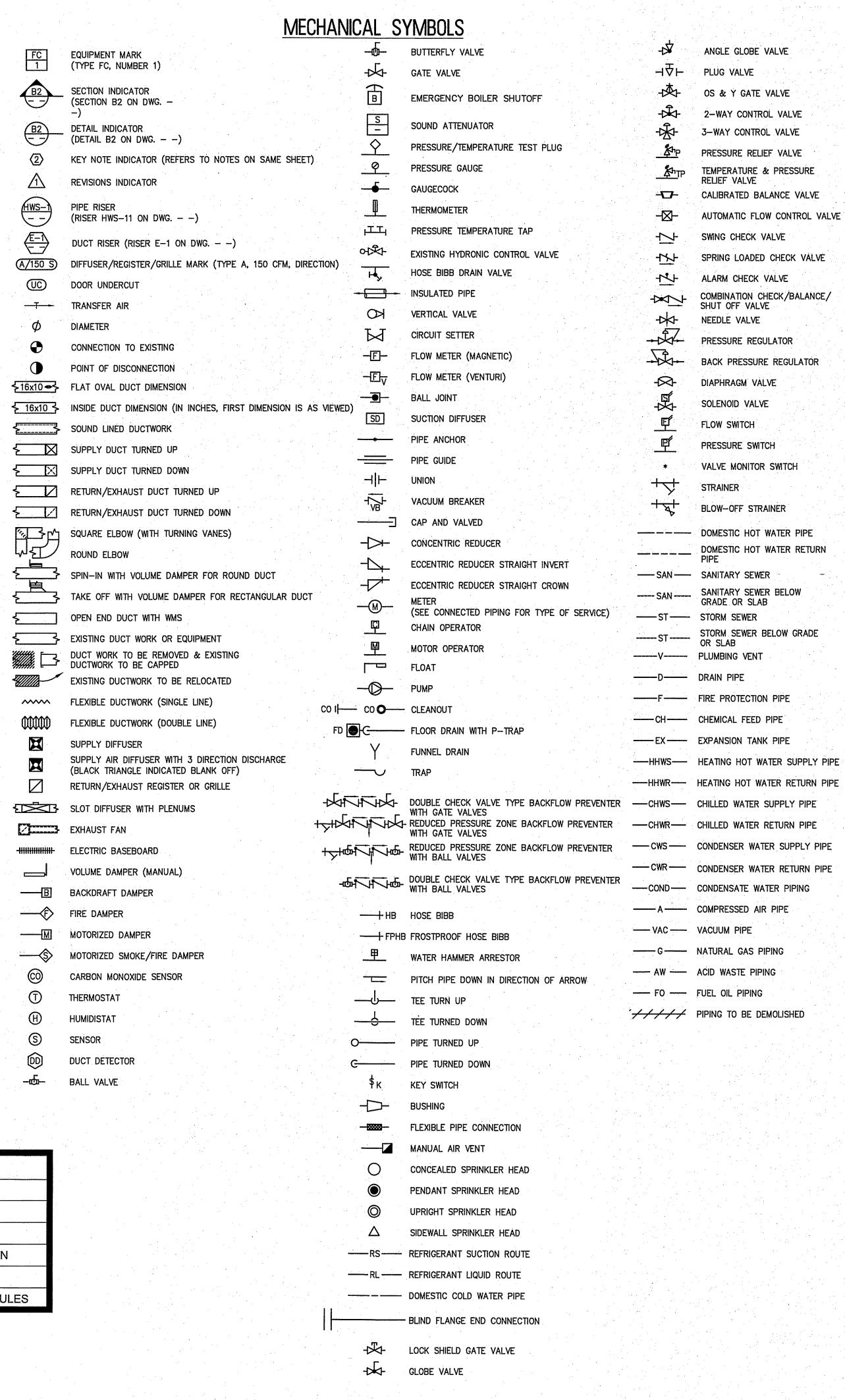
LINEAR DIFFUSER

LINEAR FEET

LOUVER

LAVATORY

	SHEET INDEX
SHEET#	DESCRIPTION
M-1.0	MECHANICAL COVER SHEET
M-2.1	MECHANICAL FLOOR PLAN
M-3.1	MECHANICAL HYDRONIC PIPING FLOOR PLAN
M-4.1	MECHANICAL DETAILS
M-5.1	MECHANICAL CONTROL DIAGRAMS AND SCHEDULES





REMINGTON & VERNICK ENGINEERS

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CHRISTOPHER A. SAPONARO
NJ PROFESSIONAL ENGINEER LIC. No. 40059

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No. REVISION DATE BY CHK

ECHANICAL COVER
SHEET

CITY OF MARGATE

JARGATE MUNICIPAL BUILDING

JFFICE IMPROVEMENTS - PHASE II

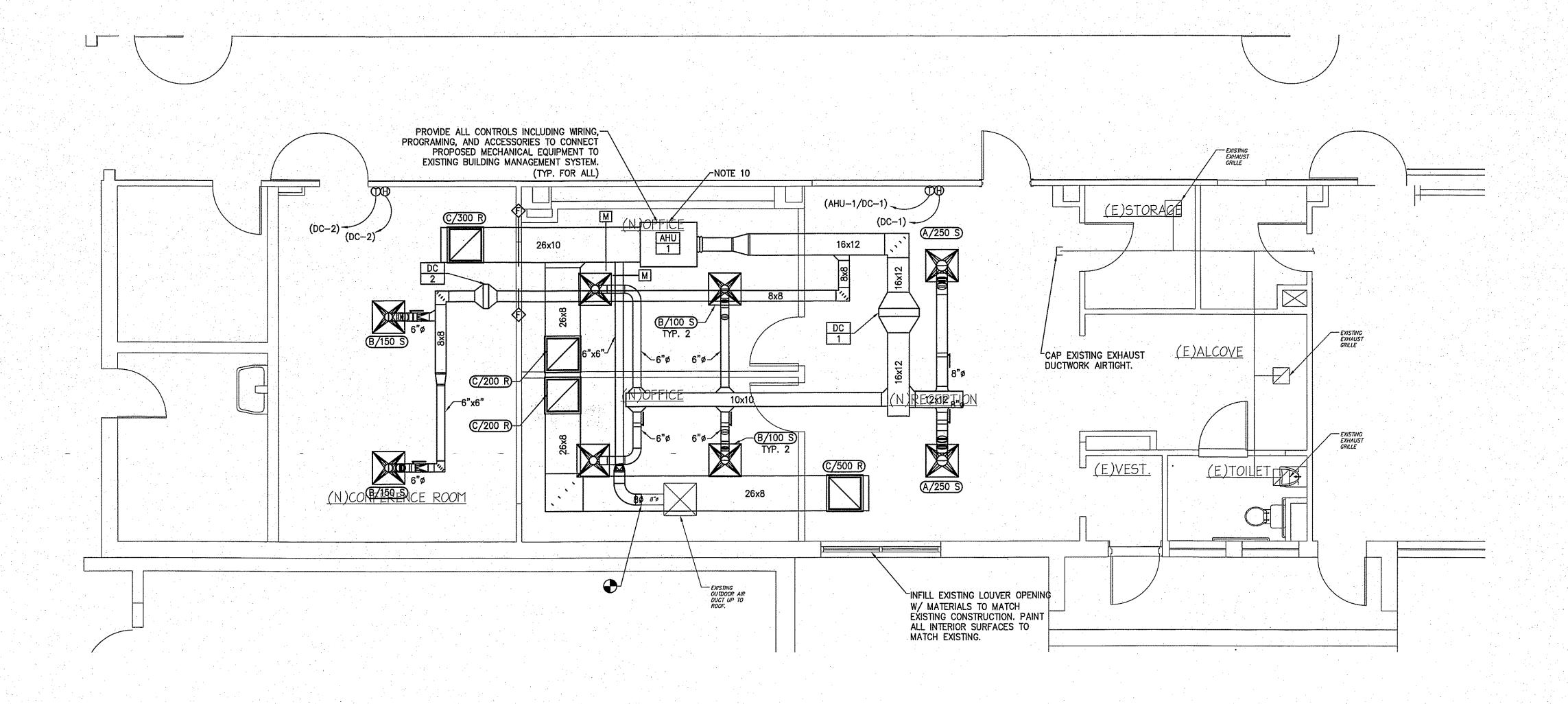
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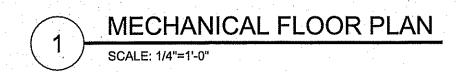
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1. ALL NOTES, SYMBOLS, AND ABBREVIATIONS ON DRAWING M-1.0 APPLY TO THIS DRAWING.

2. ALL WORK REQUIRED TO SUCCESSFULLY COMPLETE THIS PROJECT SHALL BE INCLUDED IN THE SCOPE OF WORK. IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS TO SECURE A COMPLETELY INTERCONNECTED AND FUNCTIONING SYSTEM AND IF ANY WORKMANSHIP OR MATERIALS BE REQUIRED WHICH ARE OBVIOUSLY NECESSARY TO CARRY OUT THE FULL INTENT AND MEANING OF THE PLANS AND SPECIFICATIONS OR TO BE REASONABLY INFERRED THEREFROM, THE COST OF SUCH WORKMANSHIP OR MATERIALS SHALL BE INCLUDED IN THE SCOPE OF WORK.

3. DUCTWORK ROUTINGS & PIPING ROUTINGS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL ROUTINGS IN THE FIELD TO AVOID INTERFERENCES. CONTRACTOR TO COORDINATE DUCTWORK/ UNIT AND PIPING INSTALLATION WITH THE EXISTING STRUCTURAL STEEL, ELECTRICAL CONDUIT, SYSTEMS WIRING/ CABLE, CLOCK SYSTEM, FIRE PROTECTION PIPING, PLUMBING PIPING (SANITARY DRAINAGE, ROOF DRAINAGE, DOMESTIC HOT/ COLD WATER AND GAS PIPING), ETC. AS REQUIRED. ALL MODIFICATIONS MADE TO THE NEW DUCTWORK OR PIPING TO RESOLVE INTERFERENCES SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. SEE DIVISION 23 DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. MAKE ALL REQUIRED REVISIONS AT NO COST TO THE OWNER.

4. NOT ALL INLINE DEVICES (VALVES, DAMPERS, REDUCERS, ETC.) HAVE BEEN SHOWN ON THE PLANS FOR CLARITY, SEE PIPING DETAILS ON MECHANICAL DETAIL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE ALL INLINE DEVICES (VALVES, DAMPERS, REDUCERS, GAUGES, ETC.) AS REQUIRED TO COMPLETE THE INSTALLATION EVEN IF NOT SPECIFICALLY SHOWN ON THE PLANS OR

5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING & REPLACING ANY OR ALL FIXTURES AND/OR AREAS OF THE CEILING, FLOOR OR WALL DAMAGED AS A RESULT OF THE NEW/DEMOLITION WORK.

REPAIRED & REPLACED FIXTURES AND PORTIONS OF THE CEILING, FLOOR, OR WALL SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR ORIGINAL CONDITION.

6. CONTRACTOR SHALL TEMPORARILY REMOVE ALL EXISTING FIRE ALARM DEVICES. REINSTALL IN ORIGINAL LOCATION AFTER NEW CEILINGS HAVE BEEN INSTALLED THE FIRE ALARM SYSTEM SHALL BE

KEPT IN SERVICE DURING CONSTRUCTION. PROVIDE A FIRE WATCH FOR AREAS WHERE DETECTION IS TEMPORARILY REMOVED.

7. PROVIDE ALL PROTECTIVE MEASURES AND MATERIALS FOR THE FURNITURE, COMPUTERS, EQUIPMENT, FINISHES, ETC. IN WORK AREAS TO PREVENT ANY DAMAGE TO SAME. ALL CONSTRUCTION DEBRIS, DIRT, DUST, ETC. SHALL BE THOROUGHLY CLEANED AND REMOVED FROM THE WORK AREAS DAILY. 8. PROVIDE NEW STEEL LINTEL FOR NEW OPENING THROUGH EXTERIOR WALL. SEE STEEL LINTEL DETAIL FOR ADDITIONAL INFORMATION. PROVIDE ALL UNITS WITH MANUFACTURERS TRIM KIT AS

REQUIRED. 9. CONTRACTOR TO PROVIDE FIRE STOPPING SLEEVES AS REQUIRED FOR ALL PROPOSED CORRIDOR/FIREWALL/FLOOR/ROOF PENETRATIONS.

10. EQUIPMENT HAS BEEN PRE-PURCHASED BY THE CITY OF MARGATE. COORDINATE ALL INSTALLATION WITH PURCHASED EQUIPMENT.

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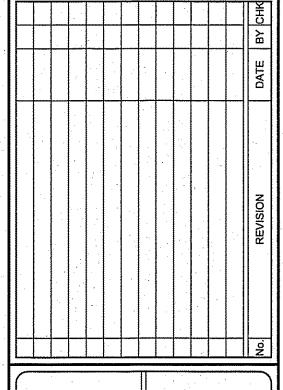
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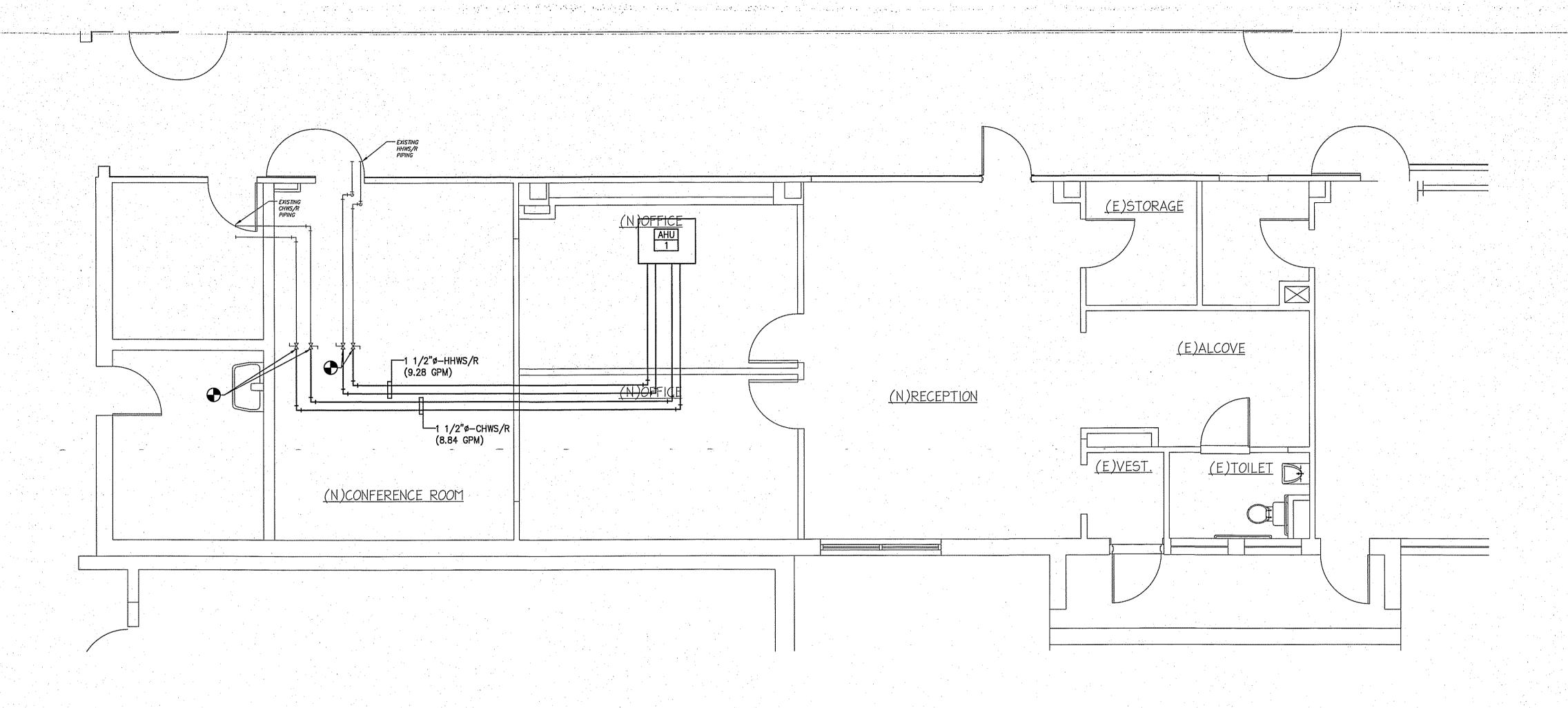


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MECHANICAL HYDRONIC PIPING FLOOR PLAN

NOTES:

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- 2. ALL WORK REQUIRED TO SUCCESSFULLY COMPLETE THIS PROJECT SHALL BE INCLUDED IN THE SCOPE OF WORK. IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS TO SECURE A COMPLETELY INTERCONNECTED AND FUNCTIONING SYSTEM AND IF ANY WORKMANSHIP OR MATERIALS BE REQUIRED WHICH ARE OBVIOUSLY NECESSARY TO CARRY OUT THE FULL INTENT AND MEANING OF THE
- PLANS AND SPECIFICATIONS OR TO BE REASONABLY INFERRED THEREFROM, THE COST OF SUCH WORKMANSHIP OR MATERIALS SHALL BE INCLUDED IN THE SCOPE OF WORK. 3. ALL PIPE ROUTINGS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL PIPE ROUTINGS IN THE FIELD AS REQUIRED TO AVOID INTERFERENCES AT NO ADDITIONAL
- 4. NOT ALL INLINE DEVICES (VALVES, DAMPERS, REDUCERS, ETC.) HAVE BEEN SHOWN ON THE PLANS FOR CLARITY, SEE PIPING DETAILS ON MECHANICAL DETAIL DRAWINGS FOR ADDITIONAL INFORMATION. PROVIDE ALL INLINE DEVICES (VALVES, DAMPERS, REDUCERS, GAUGES, ETC.) AS REQUIRED TO COMPLETE THE INSTALLATION EVEN IF NOT SPECIFICALLY SHOWN ON THE PLANS OR
- 5. FLOW RATES SHOWN ARE APPROXIMATE. FINAL FLOW RATES SHALL BE AS DETERMINED BY THE TESTING & BALANCING CONTRACTOR.
- 6. PROVIDE EXPANSION LOOPS AS NEEDED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS.
- 7. PROVIDE NEW CIRCUIT-SETTER BALANCING VALVE IN EXISTING CHILLED WATER PIPING TO BALANCE CHILLED WATER FLOW AS NEEDED.
- 8. BALANCE CHILLED WATER FLOW RATES TO VALUES SHOWN ON THIS DRAWING.
- 9. BALANCE EXISTING CHILLED WATER PUMPS AS REQUIRED FOR NEW HOT WATER FLOW RATE, SEE MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION.

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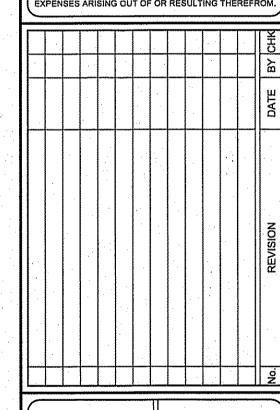
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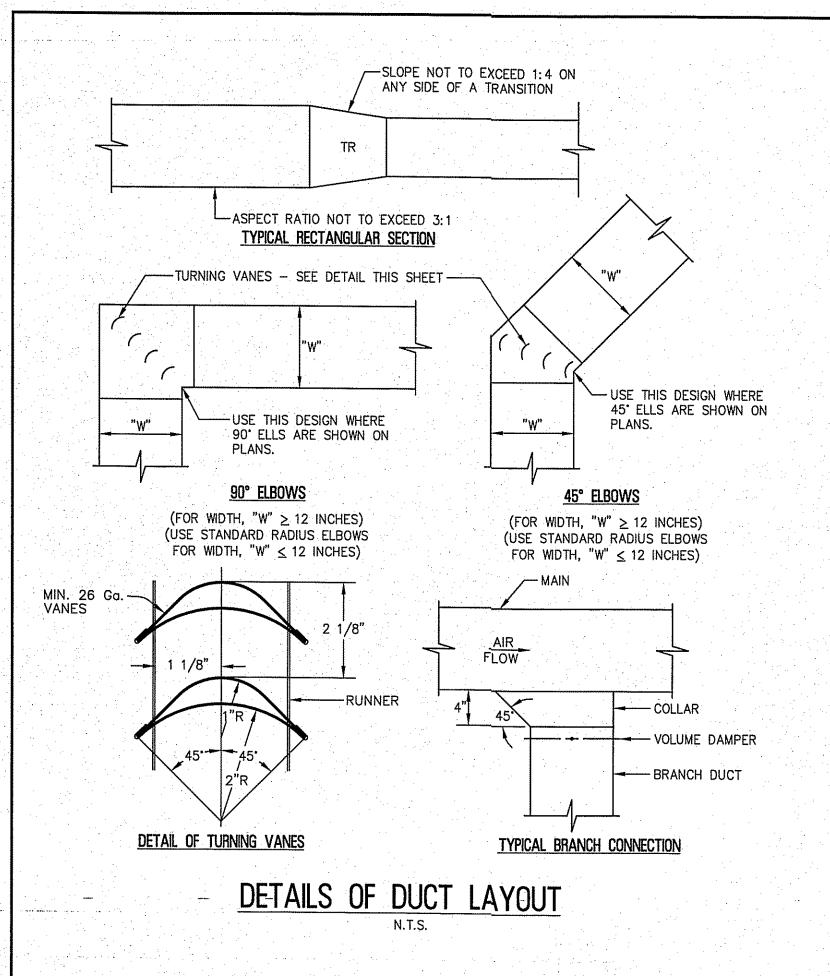
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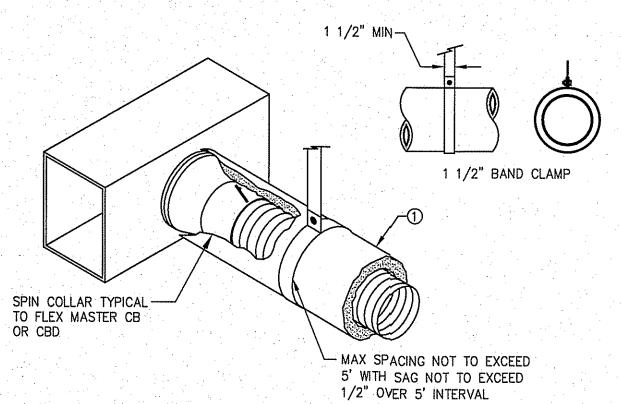


MECHANICAL HYDRONIC PIPING FLOOR PLAN

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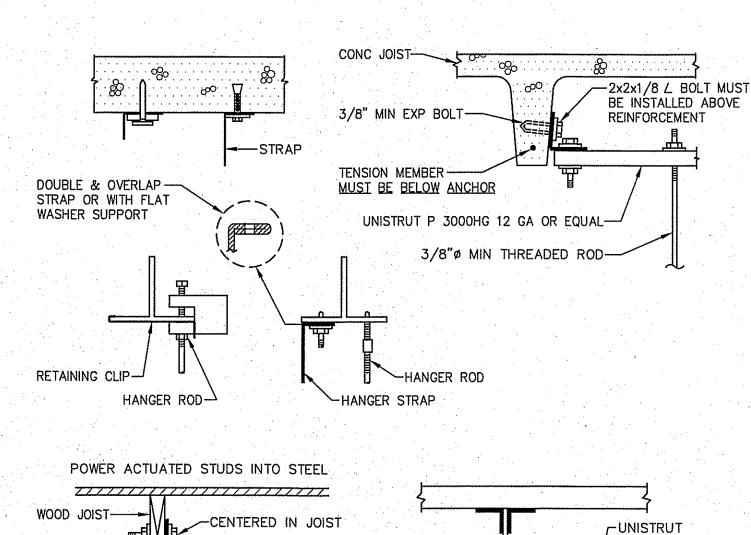


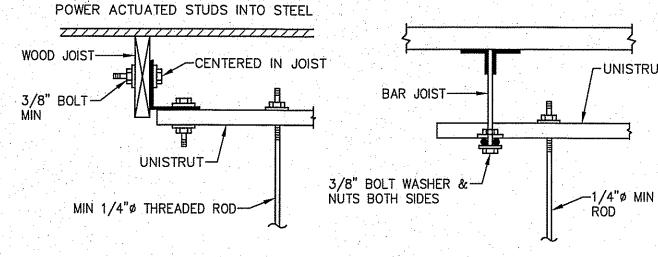
			The second second
 GAUGE	אווד	1" STRAP	MAXIMUM
 GAUGE	THK.	CAPABILITY	LOAD
24	.028	840	168
22	.034	1070	216
20	.040	1298	259

* ELASTIC LIMIT ASSUMED 30ksi; RECOMMEND MAX LOAD (20% OF YIELD STRENGTH).

1. FLEX DUCT WITH EXTERNAL INSULATION AND VAPOR BARRIER JACKETING.

SUGGESTED SUPPORT REQUIREMENTS FOR FLEX & STRAIGHT RECTANGULAR DUCT





1. ALLOWABLE LOADS AND ELEMENT SIZING SEALED BY REGISTERED ENGINEER IN STATE OF NEW JERSEY.

SEAL DRAIN PAN WITH NEOPRENE WASHERS

SOLDER FLANGE TO INSIDE OF DRAIN PAN

AT SUPPORT RODS

1. CROSS BREAK BOTTOM OF SHEET METAL DRAIN PAN TO

2. SOLDER OR OTHERWISE SEAL ALL JOINTS TO MAKE DRAIN

4. FABRICATE DRAIN PAN FROM 24 GA GALV SHEET METAL 5. ROUTE DRAIN TO CODE APPROVED CONSPICUOUS LOCATION AND PIPE SEPERATELY FROM CONDENSATE DRAIN PIPE

3. SUSPEND DRAIN PAN WITH EQUIPMENT SUPPORT RODS WHEN

POSSIBLE, OTHERWISE ATTACH WITH STRAPS TO EQUIPMENT

CONDENSATE OVERFLOW DRAIN PAN

PROVIDE SLOPED DRAINAGE TO OUTLET

PAN LEAK TIGHT

DRAIN PAN MAY BE SUPPORTED FROM-EQUIPMENT WITH METAL STRAPS

ATTACHED WITH METAL SCREWS SEE

DRAIN PAN WITH BOTTOM CONNECTED DRAIN PIPE

DRAIN PAN WITH SIDE

CONNECTED DRAIN PIPE

UPPER ATTACHEMENT AND JOIST HANGERS FOR DUCTWORK

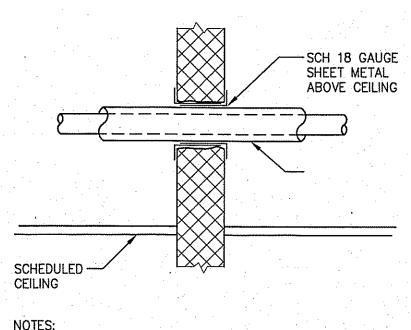
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SOLDER-

EQUIPMENT

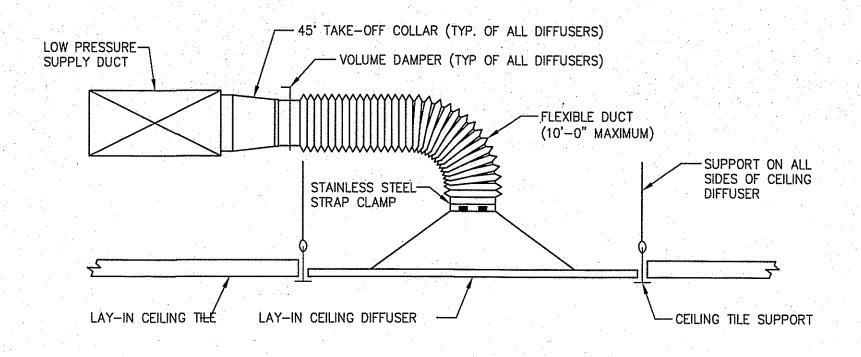
TO DRAIN

-OVERFLOW DRAIN

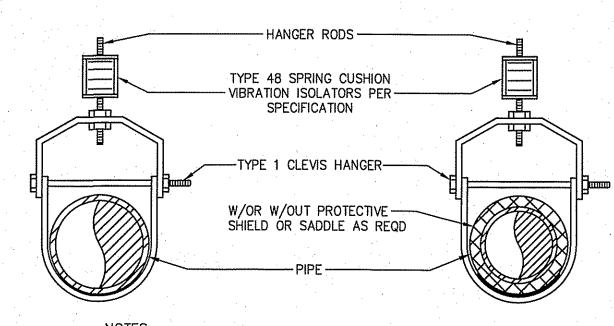


1. TYP FOR NON-INSULATED PIPE AND CONDUIT. 2. TYP FOR MASONRY OR CONCRETE WALL. 3. FIRE RATED WALLS MUST BE SEALED W/APPROPRIATE FIRE RETARDED CAULKING.

PIPE PENETRATION THRU WALL ABOVE CEILING



FLEXIBLE BRANCH DUCT WORK



TAPE APPLIED AT — BUTT JOINTS INSULATION-APPLY INSULATION AND — VAPOR JACKET SEAL AROUND ROD ON COLD SERVICE INSTALLATION NOTE:
COMPLY WITH BOOK SPECIFICATIONS FOR

> HANGER, INSULATION AND VAPOR JACKET DETAIL

REMINGTON & VERNICK **ENGINEERS** 2059 SPRINGDALE ROAD CHERRY HILL, NJ 08003 (856) 795-9595, FAX (856) 795-1882 WEB ADDRESS: RVE.COM Certification of Authorization: 24 GA 28003300 Excellence • Innovation • Service ARutoflu O Sapouero-NJ PROFESSIONAL ENGINEER LIC. No. 40059 ्रिक्रकी स्थानी प्रेसी प्राप्त कर कर है है जिस्सी प्राप्त ISSUED FOR BID DATE: 11-01-2024

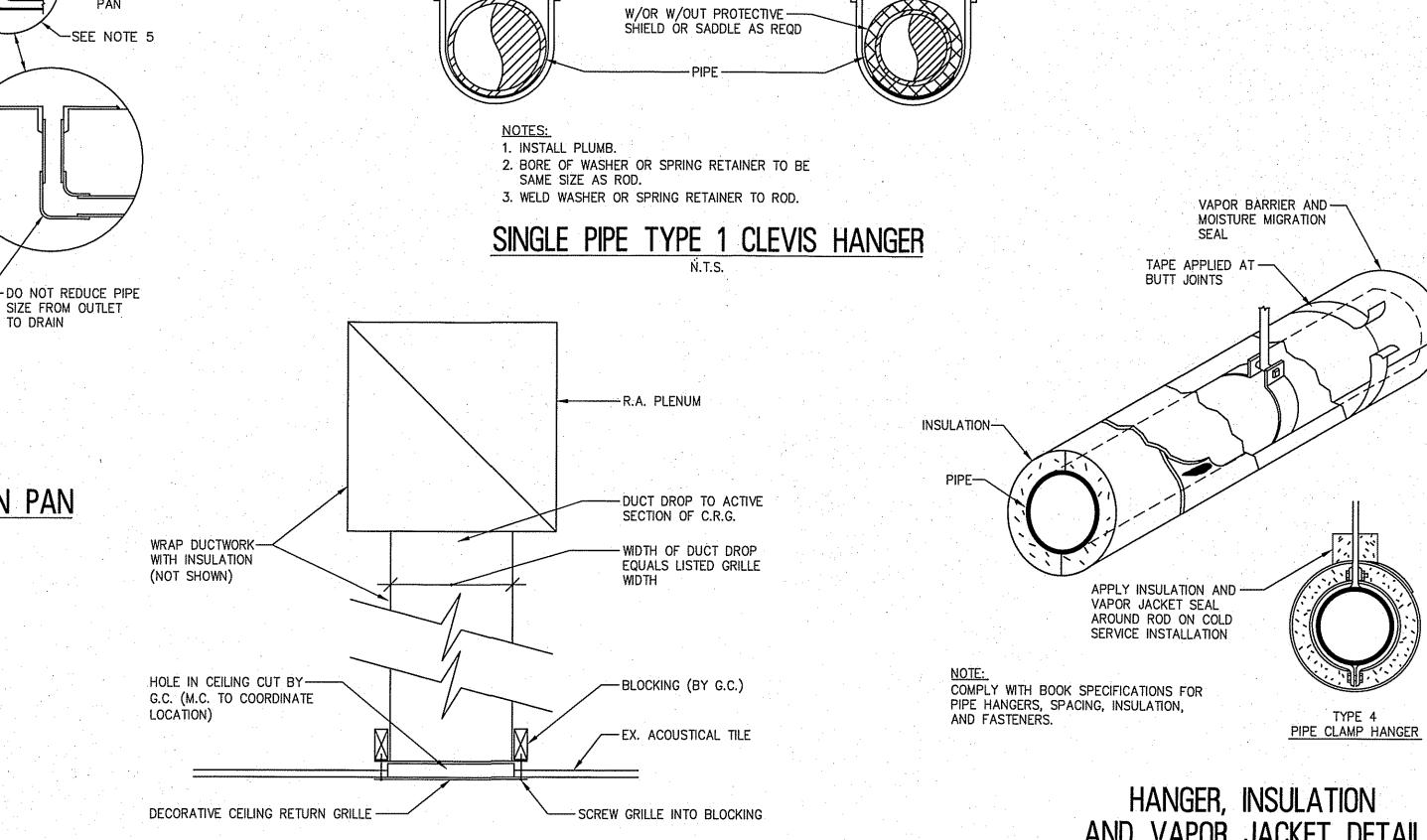
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MARGATE MUNICIPAL BUILDING OFFICE IMPROVEMENTS - PHASE II MECHANICAL

 DRAWN BY:
 DESIGN BY:
 CHECKED BY:
 SCALE:

 B.Z.
 M.T.
 AS NOTED
 AS NOTED SHEET No. : 8/2024 JOB No. : 01-16-U-196

Control of the Administration of the Control of the



CEILING RETURN GRILLE DETAIL

VENTILATION SCHEDULE																			
							VENTILAT	ION AIR REQUI	REMENTS (ASHRAE 62, INT	ERNATIONAL MECH C	DDE 2021)					OUTDOOR AIR	EXHAUST AIR	RETURN AIR	SUPPLY AIR
RDDM NAME	EQUIPMENT	APPROX.	DCCUPANT	NUMBER OF	PEOPLE OUTDOOR	TOTAL PEOPLE	AREA OUTDOOR	TOTAL AREA	BREATHING ZONE	ZONE AIR	ZONE AIR	ZONE OUTDOOR	PRIMARY	EXHAUST	TOTAL	CORRECTED	DESIGN	DESIGN	DESIGN
	TAG	AREA	DENSITY	PEOPLE & /	AIRFLOW RATE	OUTDOOR	AIRFLOW RATE	DUTDOOR	OUTDOOR AIRFLOW	DISTRIBUTION	DISTRIBUTION	AIRFLOV	DUTDOOR	AIRFLOW RATE	EXHAUST	DESIGN TOTAL	TOTAL	TOTAL	TOTAL
	NUMBER	(SF)	# PEOPLE/	OR FIXTURES	Rp	AIRFLOW	Ra	AIRFLOW	(CFM) Vbz	EFFECTIVENESS	EFFECTIVENESS	(CFM) Voz	AIR FRACTION		AIRFLOW	(CFM) Vot	(CFM)	(CFM)	MAX/MIN
			1000 SF			(CFM)		(CFM)		(COOLING) Ez	(HEATING) Ez		Zp		(CFM)	(NOTE 2)			(CFM)
DIFFICE 001	AHU-1 / DC-1	175	5	1 PEOPLE	5 CFM/PERSON	4	0.06 CFM/SQ.FT.	11	15	1.0	0.8	19	1.0	N/A	0 .	25	0	200	200
OFFICE 002	AHU-1 / DC-1	175	. 5	1 PEOPLE	5 CFM/PERSON	4	0.06 CFM/SQ.FT.	11	15	. 1.0	0.8	19	1.0	N/A	0	25	0	200	200
RECEPTION	AHU-1 / DC-1	485	5	2 PEOPLE	5 CFM/PERSON	12	0.06 CFM/SQ.FT.	29	41	1.0	0.8	52	1.0	N/A	. 0	60	0	500	500
CONFERENCE ROOM	AHU-1 / DC-2	320	50	16 PEOPLE	5 CFM/PERSON	80	0.06 CFM/SQ.FT.	19	99	1.0	0.8	124	1.0	N/A	0	130	0	300	300
				·				·											
		1,155														240			1,200

	·			. :							<u> </u>	1996	4 - * 1 - 1 - 1 - 1 - 1		the state of the s						•	<u> </u>			·		44		
	AIR F	IANDLING UNIT SCH	EDULE																										
i karan da Taran			APPROX.	UNIT	SUPPLY	RETURN	MINIMUM				CHILLED WAT	ER COOLING	COIL		:				HEATING COIL	(LOCATED	IN PREHEA	T POSITION)						
	TAG	AREA(S) SERVED	DIMENSIONS	WEIGHT	AIRFLOW	AIRFLOW	DUTSIDE	E.S.P.	T.S.P.	MOTOR	TOTAL	SENS.	EAT/DB	EAT/WB	LAT/DB LAT/	WB FLUI	D MAX	MAX	CAPACITY	EAT/DB	LAT/DB	EWT/LWT	FLUID	MAX	ELEC.	MCA	MOPD	BASIS OF DESIGN	NOTES
			(L" X W" X H")	(LBS.)	CFM	CFM	AIR CFM	(IN, W.C.)	(IN. W.C.)	HP	CAPACITY	CAPACITY	(DEG. F.)	(DEG. F.)	(DEG. F.) (DEG.	F) FLOV	W FLUID P.D	AIR P.D	(MBH)	(DEG. F.)	(DEG. F.)	(DEG. F.)	FLOW	P.D	V/PH/HZ	AMPS	AMPS		
	A1111 4	TESTOE OOL / TESTOE									(MBH)	(MBH)				(GPM	1) (FT H20)	(IN H20)					(GPM)	(FT H20)			1		
, 1945. 1	AHO-T	UPFICE OUI / LIFFICE OUZ	33.1" × 42.0" × 17.0"	219	1,200	1,070	130	0.50	1.45	1	41.47	29,14	80	67	58.0 56.0	8.8	12	0.5	95.8	60.0	134.0	180/160	9,3	17.5	230/1/60	9,66	15	TRANE BCHE036	SEE BELOW
	NDTES:	1. PROVIDE UNITS WITH 2' I	HOAM INJECTED R-13 WITH	THERMAL	BREAK INS	ULATION.							· ·					. •							÷				•

3. PROVIDE UNIT WITH HANGING VIBRATION ISOLATORS AND SUPPORT RODS. 4. PROVIDE WITH AUXILIARY DRAIN PAN.

5. PROVIDE WITH 2" THICK MERV 13 FILTERS.

POINTS

2. TEMPERATURES SHOWN ARE LEAVING THE COIL.

6. PROVIDE WITH COIL DRAIN PANS, CONDENSATE OVERFLOW ALARM, AND FREEZESTAT.

7. COORINDATE ALL CONTROLS WITH DUCT MOUNTED ELECTRIC REHEAT COILS.

8. EQUIPMENT HAS BEEN PREPURCHASED BY THE CITY OF MARGATE.

ELECT	TRIC DUCT COIL SCHEDULE					1.					
TAG	LOCATION	TYPE	WIDTH (IN)	HEIGHT (IN)	AIRFLOW (CFM)		ELECTRICAL V / Hz / PH	POWER (AMPS)	STAGES	BASIS OF DESIGN	NOTES
DC-1	OFFICE 001, OFFICE 002, RECEPTION	SLIP-IN	30	17	900	8	208/60/1	38.5	1	THERMOLEC	SEE BELOW
DC-2	CONFERENCE ROOM	SLIP-IN	8	8	300	4	208/60/1	19.2	1	THERMOLEC	SEE BELOW
NOTES	1. DUCT COIL SHALL BE PROVIDED WITH	24V CONTRO	L TRANSF	ORMER, I	ISCONNEC.	T, AIR PR	ESSURE SWITCH	١,			
	BUILT-IN AIRFLOW SENSOR, AUTOMATI	C CUT-DUT,	MANUAL C	UT-OUT,	MANUAL H	I LIMIT,					
	OVERTEMPERATURE THERMAL LIMIT PR	OTECTION, A	ND SCR C	ONTROL.							

TAG	DESCRIPTION	FACE /	NECK	DIRECTION		BASIS OF DESIG	N
	-	LENGTH			MF'R	MODEL	NOTES
Α	DIFFUSER	24"×24"	8 ° ø	SUPPLY	PRICE	ASCD	1,2,3,4,5
В	DIFFUSER	24"×24"	6'ø	SUPPLY	PRICE	ASCD	1,2,3,4,5
C	REGISTER	24"x24"	24"x24"	RETURN	PRICE	- 80	1,2,3,4,5

NOTES: 1. COORDINATE MOUNTING FRAME WITH CEILING/WALL TYPE. 2. COORDINATE COLOR & FINISH WITH ARCHITECT.

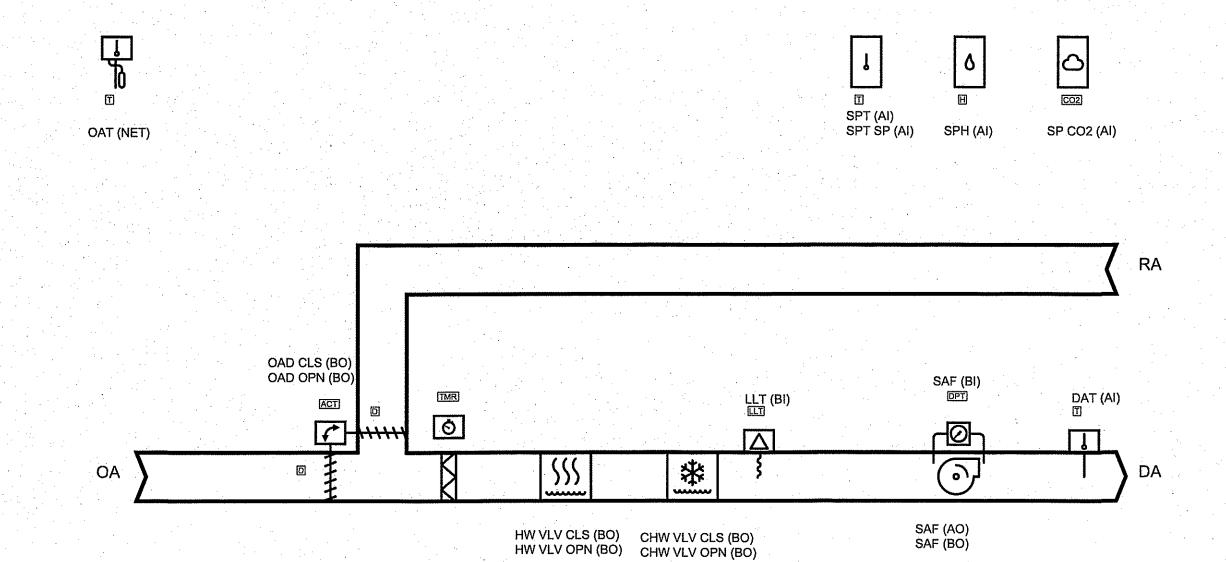
3. PROVIDE GRILLE WITH BURDER FLANGE FOR LAY-IN TYPE CEILINGS. SEE PLANS FOR LOCATIONS.

4. PROVIDE WITH ALUMINUM OPPOSED BLADE DAMPERS.

5. NC (NDISE CRITERIA) LEVEL MAY BE ND GREATER THAN 20.

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	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	ATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
	5	A	圖	A	B	S	H	3	뿔	¥	0	818	4	SE	႘
CHILLED WATER VALVE CLOSE	Х		Г		Х	Г						_			
CHW VLV CLS	<u> </u>		<u> </u>												
CHILLED WATER VALVE OPEN	Х			l	X										
CHW VLV OPN CONDENSATE OVERFLOW	X	_	x	-	-	<u> </u>	<u> </u>		$\vdash \vdash$	 					
DETECTION LOCAL	^		^									Х	X		
CND OVRFL													.		
DISCHARGE AIR TEMPERATURE	X	Х							\vdash	Х	Х			Х	\vdash
DAT	_	1.			L	L					•				
HOT WATER VALVE CLOSE	Х				Х					П			Γ	Г	П
HW VLV CLS					<u> </u>										
HOT WATER VALVE OPEN HW VLV OPN	X]:			Х										
LOW LIMIT CUTOUT	x	_	X	├	-	-			-			· ·	V		
LLT	^		^									Х	Х		
OUTDOOR AIR DAMPER CLOSE		П	\vdash		X	\vdash							-	H	
OAD CLS															
OUTDOOR AIR DAMPER OPEN	X				X		П					-			
OAD OPN															
OUTDOOR AIR TEMPERATURE (COMMUNICATED)	X								Х						
OAT															
SPACE CO2 LOCAL	Х	Х	┢		 	 				X				х	
SP CO2	1	^								^				^	
SPACE HUMIDITY SENSOR LOCAL	Х	Х	Г							Х				Х	
SPH	_														
SPACE TEMPERATURE LOCAL SPT	X	Х								X	Х		-	X	
SPACE TEMPERATURE SETPOINT	Y	Х	-	7	H	-		-						-	
LOCAL	^	^													
SPT SP								'							
SUPPLY FAN SPEED	Х			Х											
SAF				_											
SUPPLY FAN START/STOP SAF	X			١.	X										
SUPPLY FAN STATUS LOCAL	Х	-	X	-	-									-	
SAF	$ \hat{\ } $		^												
BAS COMMUNICATION STATE						X	М		\square	\neg	_		<u> </u>	\vdash	$\overline{\mathbf{x}}$
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System Point Description



BLOWER COIL CONTROLS DIAGRAM

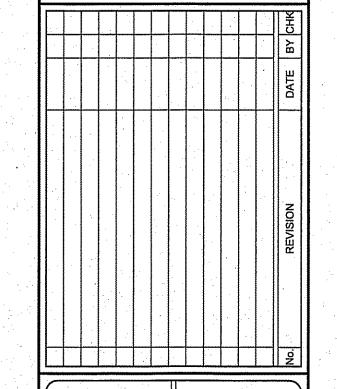
REMINGTON & VERNICK

ENGINEERS 2059 SPRINGDALE ROAD CHERRY HILL, NJ 08003 (856) 795-9595, FAX (856) 795-1882 WEB ADDRESS: RVE,COM Certification of Authorization: 24 GA 28003300

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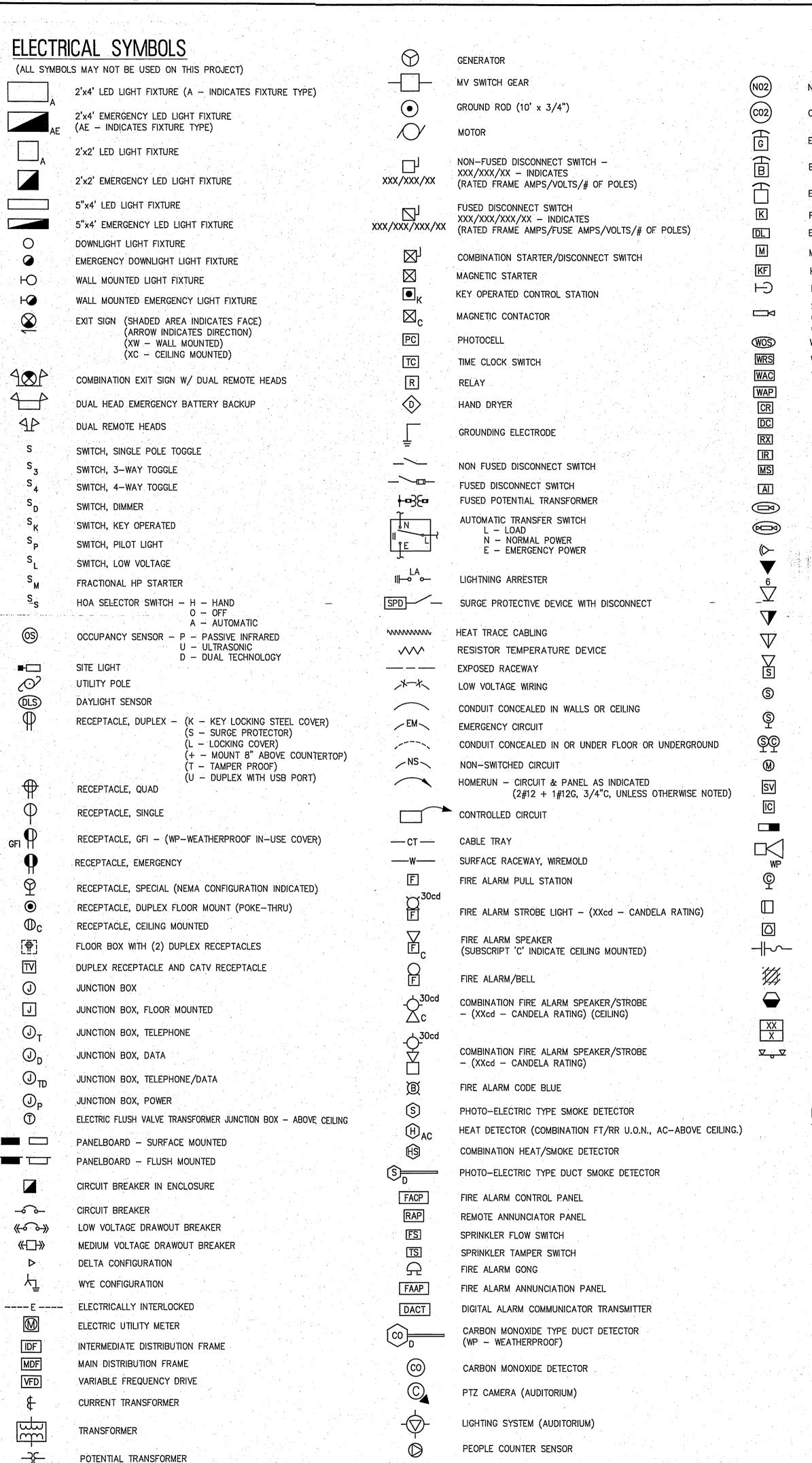
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CONTROLS SCHEDULES MECHANICAL C DIAGRAMS AND 8

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ABBREVIATIONS PERCEN' NITROGEN DIOXIDE DETECTOR PHASE CENTIGRADE DEGRÉES FAHRENHEIT DEGREES CARBON DIOXIDE DETECTOR SINGLE CONDUCTOR AMPERES INTERRUPTING CAPACITY EMERGENCY GAS SHUTOFF AUTOMATIC TEMPERATURE CONTROL AUTOMATIC TRANSFER SWITCH AIR CONDITION EMERGENCY BOILER SHUTOFF ALTERNATING CURRENT ADDITIONAL[®] AMPERE FRAME **EMERGENCY ELECTRIC SHUTOFF** AMPERE FUSE ARC FAULT CIRCUIT INTERRUPTER REMOTE KEY PAD AFF/A.F.F. ABOVE FINISHED FLOOR AFG/A.F.G ABOVE FINISHED GRADE ELECTRONIC DOOR LOCK AIR HANDLING UNIT ALUMINUM MAGNETIC DOOR HOLDER AMPERE AMP. A **APPROXIMATE** KEY FOB APPROX. ARCHITECTURAL PANIC ALARM BUTTON AMPERE TRIP ASYMMETRICAL SECURITY/VIDEO CAMERA AUXILIARY (WP - WEATHERPROOF) BELOW FINISHED CEILING (PTZ - PAN, TILT, ZOOM) BREAKER BUILDING WIRELESS OCCUPANCY SENSOR BLDG. BASEMENT BSMT. WRELESS RELAY SWITCH CONDUIT COEFFICIENT OF UTILIZATION C OF U/CFU WIRELESS ACCESS CONTROL CURRENT TRANSFORMER CB, CIR. BKR., CIRCUIT BREAKER WIRELESS ACCESS POINT CLOSED CIRCUIT TELEVISION CARD READER CKT., CIR. CIRCUIT CLOSET ELECTRONIC DOOR CONTACT CEILING REQUEST TO EXIT COMPANY COAX. COAXIAL CABLE INFRARED SENSOR COL. COLUMN COMPLETE MOTION SENSOR COMP. CONCRETE CONC. AIR PHONE INTERCOM SYSTEM CONDUCTOR CONDR. CONNECTED, CONNECTOR CONN CCTV CAMERA ASSEMBLY W/ DOME COVER CONSTRUCTION CONTINUATION DUAL CCTV CAMERA ASSEMBLY W/ DOME CONTRACTOR CONTR COORDINATE COORD. SECURITY MOTION SENSOR CORR. CORRIDOR CENTRAL PROCESSING UNIT CPU VOIP OUTLET COPPER CONDENSING UNIT CUBIC FEET DATA OUTLET - (6 - # OF DROPS) CLOCKWISE DEPTH COMBINATION VOIP AND DATA OUTLET DEMAND DIAMETER SOUND SYSTEM WALL PHONE DISCONNECT SWITCH DIVISION MASS NOTIFICATION SPEAKER DOUBLE POLE SINGLE THROW DRAW., DWG. DRAWING ELECTRICAL CONTRACTOR SPEAKER - CEILING MOUNTED EXHAUST FAN ELECTRIC HEATER SPEAKER - WALL MOUNTED ETHYLENE PROPYLENE RUBBER EACH WAY CLOCK/SPEAKER - WALL MOUNTED ELECTRICAL HEAT TRACING CABLE ELECTRICAL CLOSET MICROPHONE ELEV./EL. ELEVATION /ELEVATOR SOUND VOLUME CONTROL EMERGENCY POWER PACK COMPLETE ELECTRICAL METALLIC TUBING ENCL. **FNCLOSURE** ENTRANCE CLOCK/SPEAKER BAFFLE **EMERGENCY** EMERG. **EQUIPMENT** HORN LOUDSPEAKER (WP - WEATHERPROOF) ESTIMATE **EXISTING** EXTERNAL/EXTERIOR WALL MOUNTED CLOCK ELECTRICALLY OPERATED FIRE ALARM FIRE ALARM CONTROL PANEL BEAM DETECTOR FIRE EXTINGUISHER FIBER OPTIC PRISM REFLECTOR **FOUNDATION** MOTOR STARTER WITH FINISH/FINISHED THERMAL OVERLOAD RELAY FIXTURE INDICATES EXISTING TO BE DEMOLISHED FULL LOAD AMPERES FLEXIBLE DENOTES POINT OF CONNECTION FLEXIBLE LIQUIDTIGHT METALLIC CONDUIT F.L.M.C. OF EXISTING TO NEW FLUORESCENT FOOTCANDLE EQUIPMENT DESIGNATION TAG FAULT TRIP SITE LIGHTING (MUSCO LIGHTING SYSTEM)

FUSE/FUSED GENERAL CONTRACTOR G.C. GAGE/GAUGE GA. GALV. **GALVANIZED** GEN. GENERATOR **GFCI** GFI GRD, GND. GROUND GRS, G.R.S. GALVANIZED RIGID STEEL H.I.D. H.O.A. HAND OFF AUTO H.P.S. HIGH PRESSURE SODIUM HEX. HEXAGON HANDHOLE HORIZONTA HORSEPOWER HIGH POWER FACTOR HOT WATER HEATER HWH HZ. HFRT7 INTERMEDIATE CONDUIT INCANDESCENT INSUL. INSULATION / INSULATED ISOL. ISOLATED INTRINSICALLY SAFE INFORMATION TECHNOLOGY INTRUSION ALARM PANEL IAKP INTRUSION ALARM KEYPAD JB, J JUNCTION BOX KAIC KVAR KILOVAR KNOCKOUT KILOWAT kCMIL THOUSAND CIRCULAR MILS KILOWATT HOUR KHZ KILOHERTZ KILOVOLT KILOVOLT-AMPERE kVA LINEAR FEET LOCKED ROTOR AMPERES LRA LTG. LIGHTING M.L.O. MAIN LUGS ONLY MULTI-CONDUCTOR M/C MANUF., MFR. MANUFACTURER MAXIMIM M.B./MB MAIN BREAKER MAIN CIRCUIT BREAKER M.C.B./MCB MOTOR CONTROL CENTER MCC MCM THOUSAND CIRCULAR MILLS MDS MAIN DISTRIBUTION SWITCHBOARD MAIN DISTRIBUTION PANEL MECH. MECHANICAL MET METALLIC MAINTENANCE FACTOR MOTOR GENERATOR MINIMUM MIN. MISC. **MISCELLANEOUS** MTD. MOUNTED MTG. MOUNTING NEUTRAL NORMAL CLOSED NEC/N.E.C. NEMA NOT IN CONTRACT N.I.C./NIC NORMALLY OPEN NUMBER N.T.S./NTS NOT TO SCALE

GROUND FAULT CIRCUIT INTERRUPTER GROUND FAULT INTERRUPTER GENERATOR TRANSFER DEVICE HIGH INTENSITY DISCHARGE INTERNET SERVICE PROVIDER THOUSAND AMPERES INTERRUPTING CAPACITY

PB, P PNL. PORC.

RAP

REV.

RGA

SEP.

SERV.

NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURER ASSOC. NON FUSED PAPER INSULATED LEAD COVERED PULL BOX, BREAKER OR SWITCH POLE PANELBOARD PORCELAIN PRIMARY POWER OVER ETHERNET PAINTED POLYVINYLCHLORIDE REMOTE ANNUNCIATOR PANEL R.C.SW. REMOTE CONTROL SWITCH REBAR. REINFORCING BAR REC. RECESSED, RECEPTACLE RECEPT RECEPTACLES REQ'D REQUIRED REVISE/REVISION RADIO FREQUENCY REMOTE GENERATOR ANNUNCIATOR RIGID GALVANIZED STEEL CONDUIT ROOFTOP SQUARE FEET STAINLESS STEEL SECONDARY SECT. SECTION

SEPARATE

SERVICE

SHEET

TRANS./XFMR TRANSFORMER SIGNAL SKETCH UNLESS OTHERWISE NOTED U.O.N. SOLID NEUTRAL UNIT HEATER SPECS. SPECIFICATIONS. UNDERWRITING LABORATORIES SPD SQ. SURGE PROTECTIVE DEVICE UNINTERRUPTIBLE POWER SOURCE VOLTAGE, VOLTS SSRV SOLID STATE REDUCED VOLTAGE DROP VOLTAGE STARTER **VERTICAL** VERT. V.I.F./VIF VERIFY IN FIELD SURFACE SUSP. SUSPENDED VERSUS SWITCH SWBD. WROUGHT IRON SWITCHBOARD SYM. MTH . SYMMETRICA T.C./TC WITHOUT TIME CLOCK WEATHER PROOF THRU THROUGH CROSSLINKED POLYETHYLENE T.O.S. TOP OF SLAB (CONCRETE) TWISTED PAIR

`. 	STANDARD M	OUNTING HEIGHTS
:	MOUNTING HEIGHTS FOR EQUIPMENT S	
• . •	OTHERWISE SPECIFICALLY LABELED. (UDIMENSIONS ARE TO THE CENTERLINE	
	SWITCHES	3'-8" A.F.F.
	TELEPHONE - WALL TYPE	3'-8" A.F.F.
٠.	TELEPHONE - DESK TYPE	1'-6" A.F.F.
	RECEPTACLE - GENERAL OFFICE	1'-6" A.F.F.
	RECEPTACLE - MECHANICAL ROOMS	3'-0" A.F.F.
	FIRE ALARM GONG OR SPEAKER	6'-8" TO BOTTOM OF GONG OR SPEAKE
:	FIRE ALARM PULL STATION	3'-8" A.F.F. TO CENTER OF PULL
	FIRE ALARM STROBE LIGHT	6'-8" A.F.F. TO BOTTOM OF STROBE
	MOTION SENSOR	6'-5" A.F.F.
	PANELBOARDS	6'-0" TO TOP OF CIRCUIT BREAKER MAX
	EXIT LIGHT	ABOVE DOORS (MIN. 7'-6" A.F.F. CLEAR
	KEY PAD (REMOTE)	3'-8" A.F.F.
	DATA OUTLET	1'-6" A.F.F.
	VOLUME CONTROL/CALL SWITCH	3'-8" A.F.F.
	TIMER (NON-ADA)	4'-6" A.F.F.
÷.		

		WIRE &	COND	JIT SIZ	ING SO	CHEDULE	
		WIRE SIZE	(AWG/KCMIL)	NO. OF WIRE	S & CONDUIT	SIZE IN INCHES
AMPS	CKT. TYPE	CONDUCTOR & NEUTRAL	EQUIPMENT GROUND	SUPPLY SIDE BONDING JUMPER	A 2W+G	B 3W+G	- C 4W+G
15	1	14	14	8	3/4	3/4	3/4
20	2	12	12	8	3/4	3/4	3/4
30	3	10	10	8	3/4	3/4	3/4
40	4	8	10	8	3/4	3/4	3/4
50	5	6	10	8	3/4	1	1
60	6	4	. 10	8	1	1-1/4	1-1/4
70	7	4	8	8	1	1-1/4	1-1/4
. 80	8	3	8	8	1-1/4	1-1/4	1-1/4
90	9	2	8	8	1-1/4	1-1/4	1-1/2
100	10	1	6	6	1-1/4	1-1/2	2
125	11	1	6	6	1-1/4	1-1/2	2
150	12	1/0	6	6	1-1/2	2	2
175	13	2/0	6	4	2	2	2
200	14	3/0	6	4	: 2	2	2-1/2
225	15	4/0	2	2	2	2-1/2	2-1/2
250	16	250 KCMIL	2	2	2	2-1/2	2-1/2
275	17	300 KCMIL	2	2	2	2-1/2	2-1/2
300	18	350 KCMIL	2	2	2	2-1/2	3
325	19	400 KCMIL	1/0	1/0	2	2-1/2	3
350	20	500 KCMIL	1/0	1/0	2-1/2	3	3-1/2
400	21	(2) 4/0	(2) 2	(2) 1/0		(2) 2	(2) 2-1/2
500	22	(2) 250 KCMIL	(2) 2	(2) 1/0		(2) 2	(2) 2-1/2
600	23	(2) 350 KCMIL	(2) 1	(2) 2/0		(2) 2-1/2	(2) 3
700	24	(2) 500 KCMIL	(2) 1/0	(2) 2/0		(2) 3	(2) 3-1/2
800	25	(3) 300 KCMIL	(3) 1/0	(3) 2/0		(3) 2-1/2	(3) 3
1000	26	(3) 400 KCMIL	(3) 2/0	(3) 2/0	****	(3) 3	(3) 3
1100	27	(3) 500 KCMIL	(3) 3/0	(3) 2/0		(3) 3	(3) 3-1/2
1200	28	(4) 350 KCMIL	(4) 3/0	(4) 2/0		(4) 2-1/2	(4) 3
1500	29	(4) 500 KCMIL	(4) 4/0	(4) 2/0		(4) 3	(4) 3-1/2
1600	30	(5) 400 KCMIL	(5) 4/0	(5) 2/0		(5) 3	(5) 3
1900	31	(5) 500 KCMIL	(5) 250	(5) 2/0		(5) 3	(5) 3-1/2
2000	32	(6) 400 KCMIL	(6) 250	(6) 2/0		(6) 3	(6) 3-1/2
2500	33	(7) 500 KCMIL	(7) 350	(7) 2/0		(7) 3	(7) 3-1/2
3000	34	(8) 500 KCMIL	(8) 400	(8) 2/0		(8) 3	(8) 3-1/2
THE A	OLLOV	SCHEDULE IS B WING IS A SAMPI	LE OF WIRE	: AND COND	UIT READO	UT FROM ABO	OVE

 \Box (2A) = (2)#12AWG, (1)#12GRD IN 3/4" C.

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. THE SPECIFICATIONS FOR GROUNDING, THE CONTRACT DRAWINGS, FEDERAL, STATE AND LOCAL CODES AND TO THE SATISFACTION OF THE ENGINEER. ALL GROUNDING CONNECTIONS TO BE MADE BY THE CADWELD PROCESS OR EQUAL.
- ALL CONDUITS AND ELECTRICAL EQUIPMENT ARE SHOWN DIAGRAMMATICALLY AND MAY BE ALTERED TO SUIT FIELD CONDITIONS PENDING ENGINEER'S APPROVAL.
- ALL PLANS ELEVATIONS AND CLEARANCES SHALL BE CHECKED IN THE FIELD PRIOR TO INSTALLATION TO AVOID ALL
- 4. ALL JUNCTION BOXES SHALL BE OF SUFFICIENT SIZE TO PROVIDE FREE SPACE FOR ALL CONDUCTORS ENCLOSED IN THE BOX AND SHALL BE SIZED WITH THE LATEST N.E.C. ARTICLE 314.
- ALL DIMENSIONS ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR CONTRACTOR SHALL CHECK FOR OBSTRUCTIONS AND CLEAN OUT ALL CONDUITS PRIOR TO PULLING IN CABLES.
- PHASING OF ALL ELECTRICAL CONNECTIONS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SHALL BE MADE IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY REQUIREMENTS. ALL HOLES THROUGH STRUCTURE TO ACCOMMODATE ELECTRICAL CONDUITS SHALL BE CORE DRILLED AND SEALED WITH NON-SHRINK GROUTING COMPOUND. WHERE RACEWAYS PASS THROUGH FLOORS AND FIRE RATED WALLS AND/OR PARTITIONS, CONTRACTOR SHALL FURNISH UL RATED FIREPROOFING MATERIAL TO BE INSTALLED IN STRICT COMPLIANCE
- WITH THE MANUFACTURER'S RECOMMENDATIONS AND RESTORE ORIGINAL FIRE RATING. 9. THE CONTRACTOR SHALL FURNISH STRUCTURAL SUPPORT FOR ALL EQUIPMENT. FOR SURFACE MOUNTED EQUIPMENT, SUCH AS PANELBOARDS, STARTERS, SAFETY SWITCHES AND THE LIKE, PROVIDE "UNISTRUT" WITH CORROSION RESISTANT
- MOUNTING HARDWARE. 10. NO CONDUIT SMALLER THAN 3/4" SHALL BE USED UNLESS OTHERWISE SPECIFIED. 11. ALL JOINTS BETWEEN DISSIMILAR METALS SHALL BE COATED WITH A LITHIUM BASED THREAD LUBRICANT.
- 12. RACEWAYS SHALL BE PROVIDED WITH AN APPROVED EXPANSION-DEFLECTION FITTINGS WHERE CROSSING BUILDING CONSTRUCTION EXPANSION JOINTS AND WHERE NECESSARY TO COMPENSATE FOR THERMAL EXPANSION AND
- 13. FURNISH AND INSTALL CONCRETE PADS FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. 14. PRIOR TO SUBMITTING PROPOSALS, BIDDERS ARE INSTRUCTED TO REVIEW PLANS AND SPECIFICATIONS OF ALL CONCURRENT WORK TO DETERMINE QUANTITIES OF LABOR AND MATERIAL NECESSARY TO INSTALL, CONNECT, AND TEST MATERIAL FURNISHED UNDER THESE SPECIFICATIONS. ANY ADDITIONAL LABOR AND MATERIAL REQUIRED DUE TO FAILURE OF THE CONTRACTOR TO FOLLOW THESE INSTRUCTIONS, SHALL BE FURNISHED AT NO ADDITIONAL COST TO THE OWNER.

- 15. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER CONTRACTORS EMPLOYED ON THIS PROJECT PRIOR TO ROUGHING IN. THE CONTRACTOR SHALL OBTAIN AND REVIEW APPROVED SHOP DRAWINGS OF ALL OTHER TRADES AFFECTING ALL ELECTRICAL WORK.
- 16. THE CONTRACTOR SHALL CHECK AND TORQUE TIGHTEN ALL CONNECTIONS, WHETHER FACTORY MADE OR MADE UNDER THIS CONTRACT, USING ACCURATELY CALIBRATED TOOLS. TORQUE SETTINGS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFIC RECOMMENDATIONS.
- 17. INSTALL AN 1/8" INCH POLY PROPYLENE (PULL-IN-ROPE) IN ALL SPARE CONDUITS. 18. INSULATED COPPER CONDUCTORS FOR EQUIPMENT GROUNDING SHALL BE ROUTED WITH ALL POWER CONDUCTORS. 19. CONDUCTORS USED FOR CONTROL WIRING SHALL BE AT LEAST NO. 14 AWG AND ALL POWER CONDUCTORS SHALL BE AT
- LEAST NO. 12 AWG UNLESS OTHERWISE SPECIFIED. 20. CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFETY EQUIPMENT AND EXERCISE PRECAUTIONARY PROCEDURES WHEN WORKING WITH OR NEAR ENERGIZED EQUIPMENT. 21. CONTRACTOR SHALL REMOVE ALL OBSOLETE EQUIPMENT, CONDUITS AND WIRING, EXCEPT WHERE OTHERWISE NOTED.
- 22. INTERRUPTION OF SERVICE SHALL BE SCHEDULED AND COORDINATED WITH THE OWNER AND HELD TO MINIMUM IN ORDER TO MAINTAIN THE PROPER OPERATION OF THE FACILITY. 23. WHEN CONDUIT OR CABLE RUNS FOR POWER AND LIGHTING EXCEED 60 FT. FOR 120 VOLT OR 120 FT. FOR 277 VOLT TO
- CENTER OF LOAD, NO. 10 AWG WIRE OR LARGER SHALL BE USED AS REQUIRED FOR A MAXIMUM 3% VOLTAGE DROP AT FULL CIRCUIT CAPACITY. 24. HEAVIER LINE WEIGHT SYMBOLS AND TEXT INDICATE NEW WORK UNLESS OTHERWISE NOTED. LIGHT LINE WEIGHT SYMBOLS
- AND ITALICIZED TEXT INDICATE EXISTING CONDITIONS TO REMAIN UNLESS OTHERWISE NOTED. 25. CONTRACTOR SHALL SALVAGE ALL DEMOLISHED EQUIPMENT AND VERIFY WITH OWNER PRIOR TO DISPOSING OF THE
- DEMOLISHED EQUIPMENT. 26. CONTRACTOR SHALL COORDINATE THE REMOVAL AND INSTALLATION OF ALL DEVICES ASSOCIATED WITH SURVEILLANCE,
- COMMUNICATIONS, AND CONTROL OF THE FACILITY WITH THE OWNER. 27. THE CONTRACTOR SHALL PROVIDE A THOROUGH EVALUATION OF THE EXISTING PROJECT SITE AND BUILDING CONDITIONS. WHERE EXISTING CONDITIONS WARRANT CHANGES TO ACCOMMODATE THE NEW WORK PLANNED, THE CONTRACTOR SHALL PROVIDE THE REQUIRED WORK AND MATERIALS TO INCLUDE ANY AND ALL ALTERATIONS, DEMOLITION, PATCHING, AND REPAIRING OF THE EXISTING CONDITIONS TO ACCOMMODATE THE NEW CONSTRUCTION WORK AS A COMPLETE

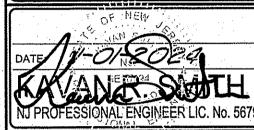


REMINGTON & VERNICK **ENGINEERS**

CHERRY HILL, NJ 08003 (856) 795-9595, FAX (856) 795-1882 WEB ADDRESS: RVE.COM Certification of Authorization: 24 GA 28003300 Excellence • Innovation • Service

2059 SPRINGDALE ROAD

11-01-2024 CHRISTOPHER A. SAPONARO NJ PROFESSIONAL ENGINEER LIC. No. 40059



ISSUED FOR DATE: 11-01-2024

PLANS WHICH DO NOT BEAR ALL DOCUMENTS PREPARED BY REMINGTON & VERNIC ENGINEERS AND AFFILIATES ARE INSTRUMENT OF SERVICE IN RESPECT OF THE PROJECT, THEY ARE N INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF TH PROJECT OR ON ANY OTHER PROJECT, ANY REUS WITHOUT WRITTEN VERIFICATION OR ADAPTATIO BY REMINGTON & VERNICK ENGINEERS AND AFFILIATES FOR THE SPECIFIC PURPOSE INTENDED WILL AT OWNERS SOLE RISK AND WITHOUT LIABILITY O AND AFFILIATES: AND OWNER SHALL INDEMNIFY AND HOL HARMLESS REMINGTON & VERNICK ENGINEERS AN

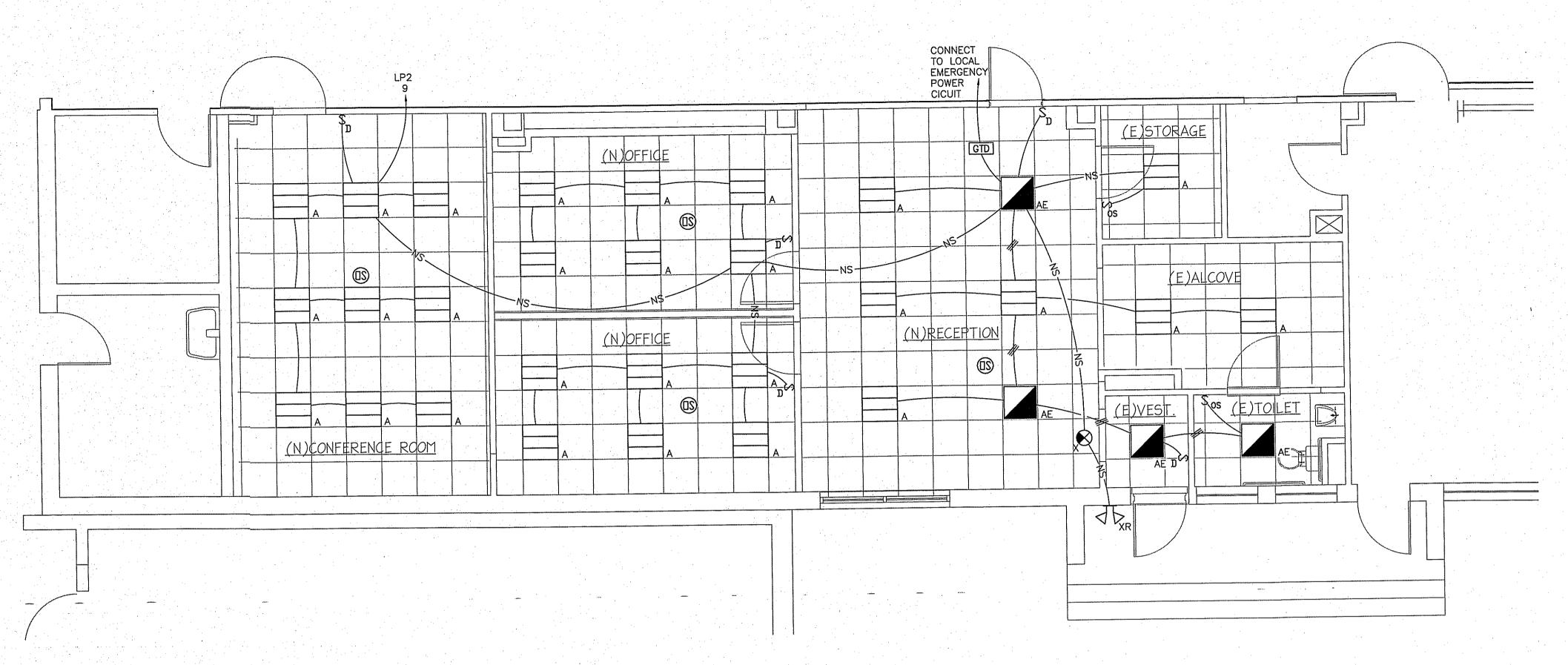
AFFILIATES FROM ALL CLAIMS, DAMAGES, LOSSES AN

EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

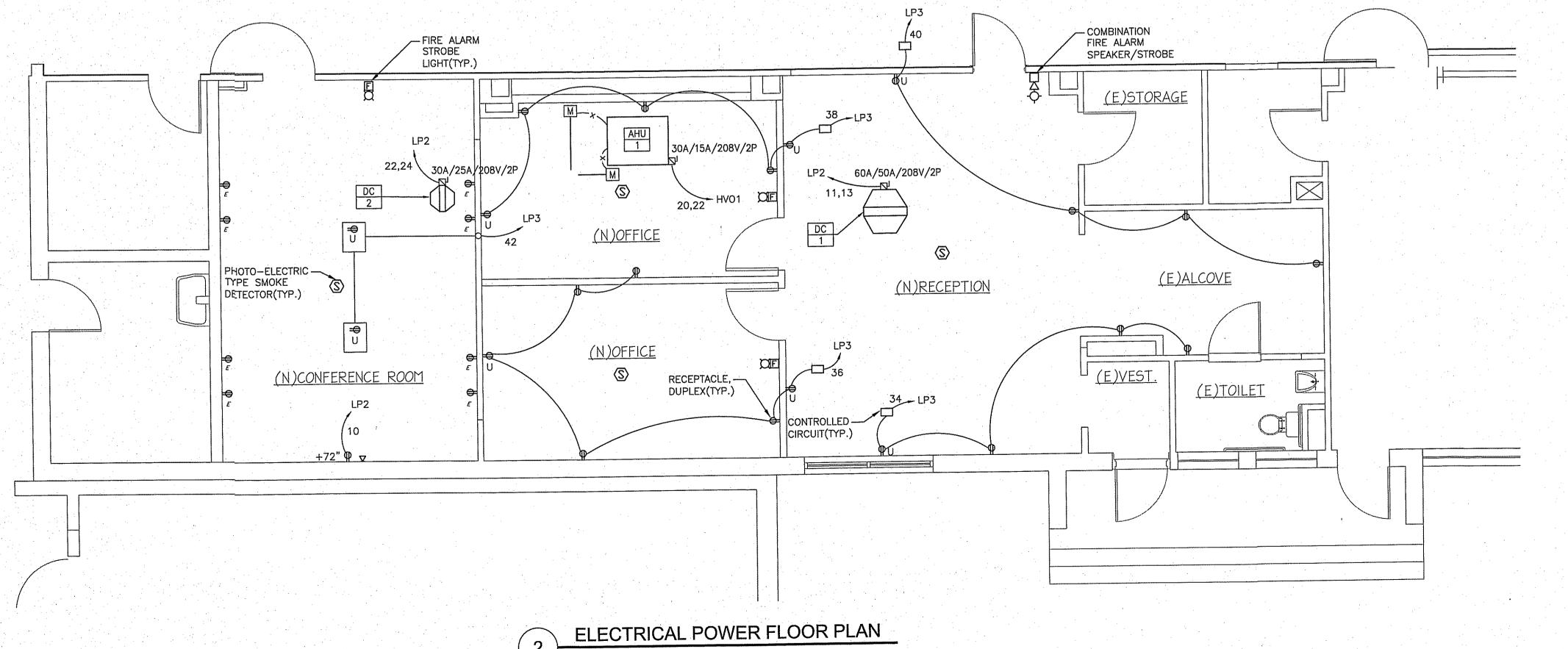
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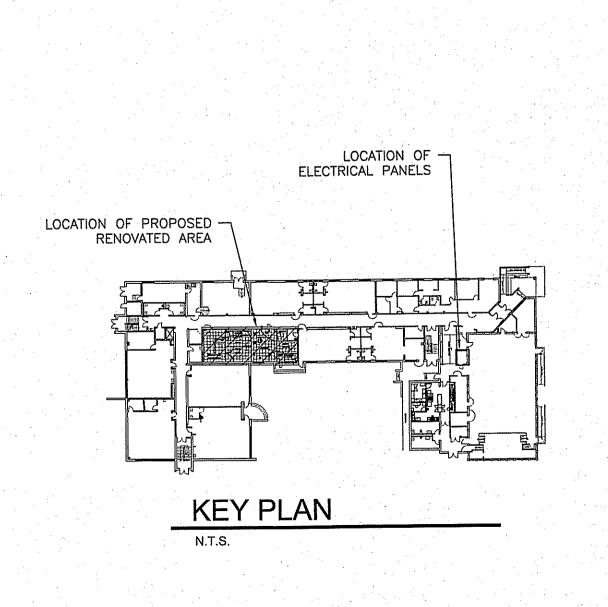
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ELECTRICAL LIGHTING FLOOR PLAN



1. ALL NOTES, SYMBOLS, AND ABBREVIATIONS ON DRAWING E-1.0 APPLY TO THIS DRAWING. 2. THIS DRAWING IS DIAGRAMMATIC, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM EXISTING SITE CONDITIONS AND INSTALLATION CLEARANCES PRIOR TO SHOP DRAWING SUBMISSIONS AND INSTALLATION. SHOULD THE CONTRACTOR DETERMINE THAT THE INSTALLATION OF ANY ELECTRICAL COMPONENT IS RESTRICTED OR NOT ABLE TO BE INSTALLED IN THE SUGGESTED LOCATION, THE CONTRACTOR SHALL READDRESS THE INSTALLATION ACCORDINGLY AND IN CONTRACTOR SHALL READDRESS THE INSTALLATION ACCORDINGLY AND IN COMPLIANCE WITH THE MOST RECENTLY ADOPTED NATIONAL ELECTRICAL CODE APPROVED BY THE AUTHORITY HAVING JURISDICTION AT NO ADDITIONAL COST.





ENGINEERS 2059 SPRINGDALE ROAD CHERRY HILL, NJ 08003 (856) 795-9595, FAX (856) 795-1882

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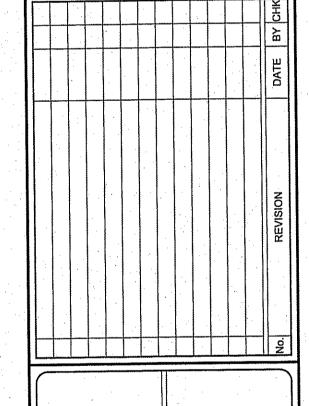
DATE: 11-01-2024 CHRISTOPHER A. SAPONARO NJ PROFESSIONAL ENGINEER LIC. No. 40059



ISSUED FOR BID DATE: 11-01-2024

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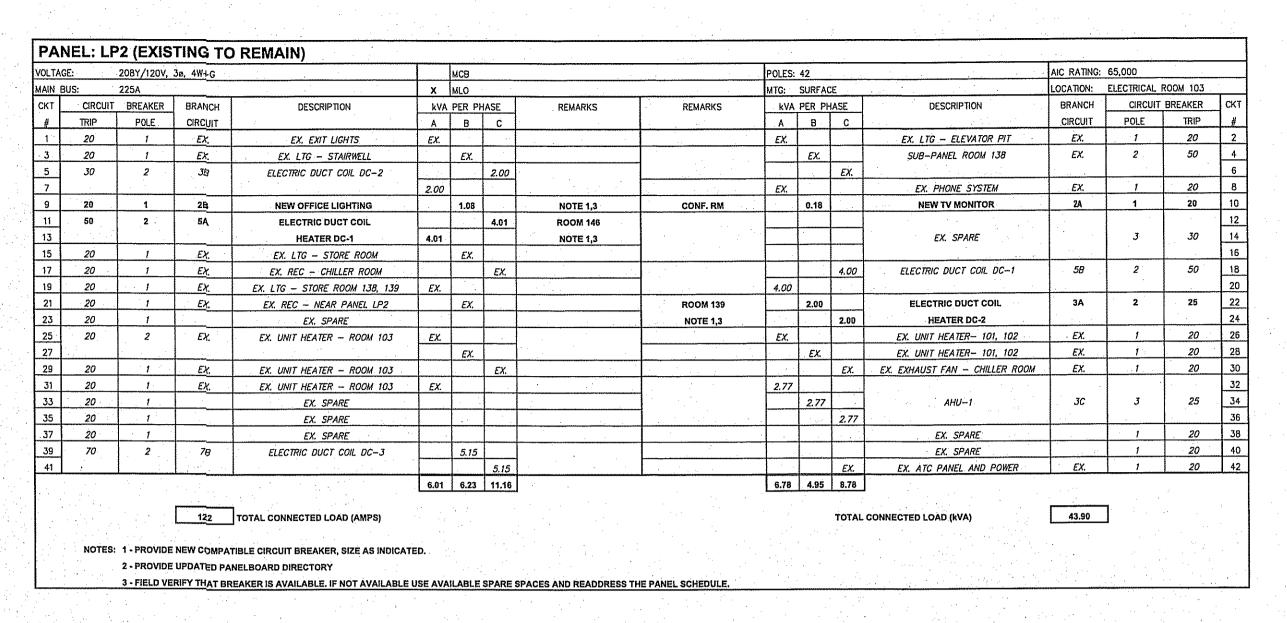
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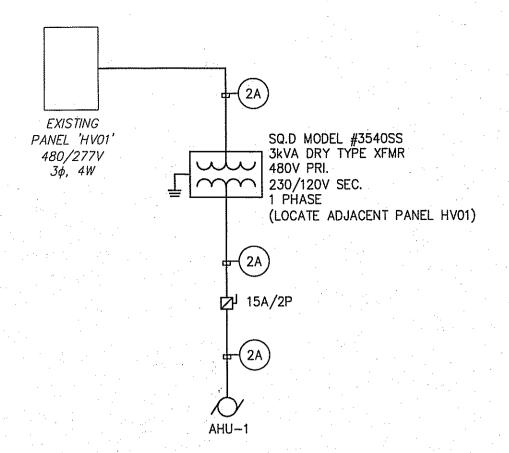
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OLTA	E:	208Y/120V,	3ø, 4W+G			мсв				POLES:	42			AIC RATING:	******	·····	
AIN BUS: 225A		X MLO					MTG: SURFACE		Ε		LOCATION:	CORRIDOR NEAR 113					
кт	CIRCUIT BREAKER BRANCH DESCRIPTION		kva per phase			REMARKS	REMARKS	kVA PER PHASE		ASE	DESCRIPTION	BRANCH	CIRCUIT BREAKER		4		
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7	20	. 1		LIGHTING	E					E			LIGHTING		1	20	
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21	20	2		EX. KITCHENETTE		E					E		FAN COIL UNIT		2	20	
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41	20	1		SPARE V.I.F.			Ε		NOTE 1,2,3			0.36	RECEPTACLES	2A	1	20	
			,		2.21	0.00	0.00			0.90	1,44	2.45					
							1 0.00										
			19	TOTAL CONNECTED LOAD (AMPS)								TOTAL C	ONNECTED LOAD (kVA)	7.00	"		
	1.0	•		1.01.2 0025.25 20.0 (0)		* *			and the second second				,				
٠,	NOTES	: 1-PROVIDE	NEW COMPAT	TIBLE CIRCUIT BREAKER, SIZE AS II	IDICATI	₽D.											
		The second second		NELBOARD DIRECTORY	.s.vn()												

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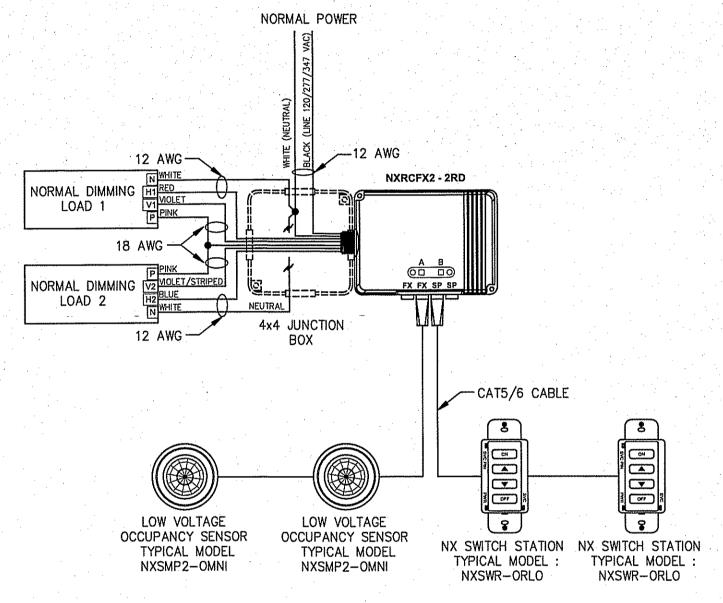
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IN BUS			3ø, 4₩+G	and the second s	X	мсв	70A/3P	Control of the Contro	4.4	POLES:	3U			AIC RATING:	22,000		***************************************
111 000	3:	100A				MLO				MTG:	SURFAC	Œ		LOCATION:	ELECTRICAL	CLOSET 171	
KT	CIRCUIT	BREAKER	BRANCH	DESCRIPTION		kva per phase		REMARKS	REMARKS	kva per phase		IASE	DESCRIPTION	BRANCH	CIRCUIT BREAKER		
	TRIP	POLE	CIRCUIT		Α	В	С			Α	8	С		CIRCUIT	POLE	TRIP	_
1					1.33				CFO OFFICE	3.50			VAV-1	2A	1	- 20	_ _
3	15	. 3	2c	AHU-1		1.33	·	CORRIDOR CEILING	PAYROLL OFFICE		2.50		VAV-2	2A	. 1	15	
5							1.33		ASS. CFO OFFICE	·		2.50	VAV-3	2A	1	15	
7					1.34			,	FINANCE OFFICE	2.50			VAV-4	2A	1	15	
9	15	3	2C	VAV-6		1.34		CFO LOBBY	COPY AREA		2.50		VAV-5	2A	1	15	
1							1.34		TAX OFFICE			3.00	VAV-8	2A	1	15	_
3					2.78				,				SPARE		1	. 15	
5	20	3	2C	VAV-7		2.78		TAX / UTILITIES					SPARE		1	15	
7							2.78	RECEPTION					SPARE		11	15	
9				;					3 KVA TRANSFORMER	1.00			AHU	2A	2	15	· _
21	15	3		SPARE					FEEDS 230V AHU		1.00		NEW OFFICE		<u> </u>		
23			<u> </u>										SPACE				
25				SPACE									SPCAE				
27				SPACE									SPACE				_
29				SPACE									SPACE		<u> </u>		
					5,45	5.45	5.45			7.00	6.00	5.50					
			42	TOTAL CONNECTED LOAD (AMPS))		1.					TOTAL CON	NECTED LOAD (kVA)	34.85	1		

LIGHT	FIXTURE SCHEDULE						
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER	CATALOG NO.	LAMPS	VOLTS	REMARKS
A	2' x 2' LED TROFFER	RECESSED	H.E.WILLIAMS	LT-22-L39/835-AF-DIM-UNV	LED 33.1 WATTS	UNV	
AE	2' x 2' LED TROFFER	RECESSED	H.E.WILLIAMS	LT-22-L39/835-AF-DIM-UNV	LED 33.1 WATTS	UNV	CONNECT WITH GENERATOR TRANSFER DEVICE (GTD)
X	LED EXIT SIGN	CEILING	DUAL-LITE	EVEURW AC ONLY	LED 2.2 WATTS	UNV	
XR	LED EGRESS LIGHT DUAL LAMP	WALL	EXO	ML-2L-50-LSCS AC ONLY	LED 25.4 WATTS	UNV	WET LOCATION RATED

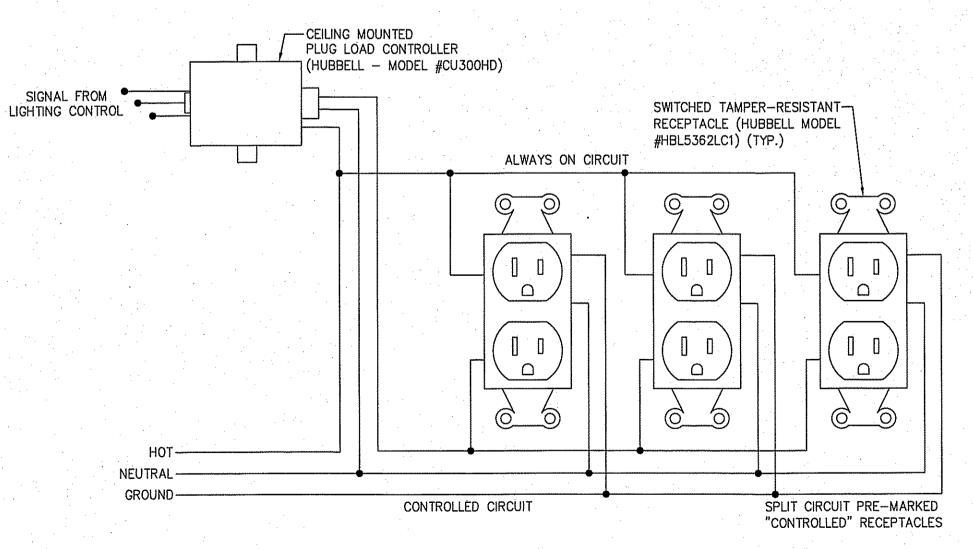


1 SINGLE LINE DIAGRAM SCALE: N.T.S.



BASIS OF DESIGN: NX SYSTEM BY HUBBELL

2 ZONE LIGHTING CONTROLS DIAGRAM SCALE: N.T.S.



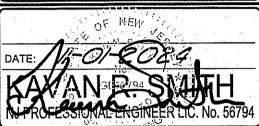
3 AUTOMATIC RECEPTACLE CONTROL DETAIL SCALE: N.T.S.



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