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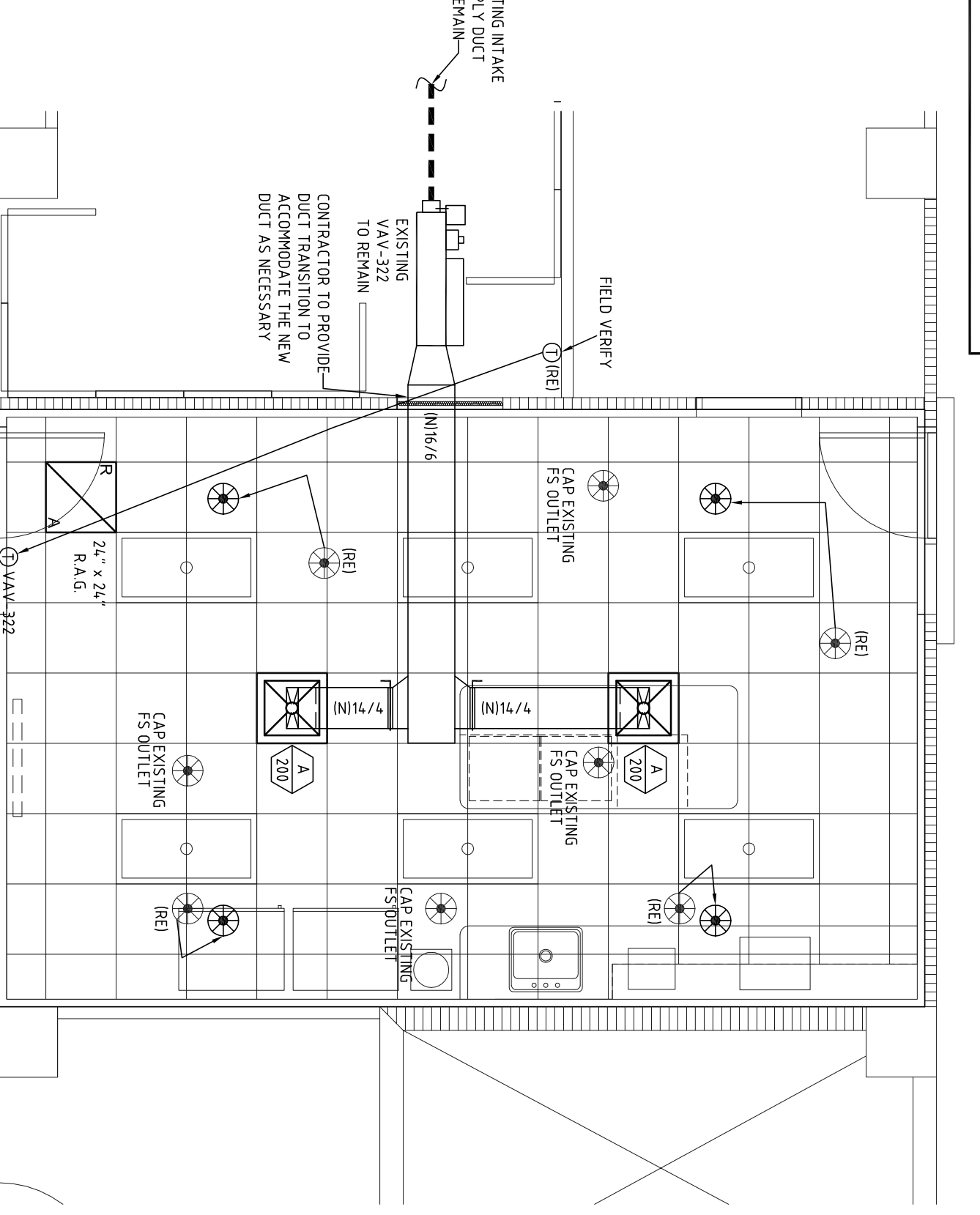
FPL
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MECHANICAL PLAN

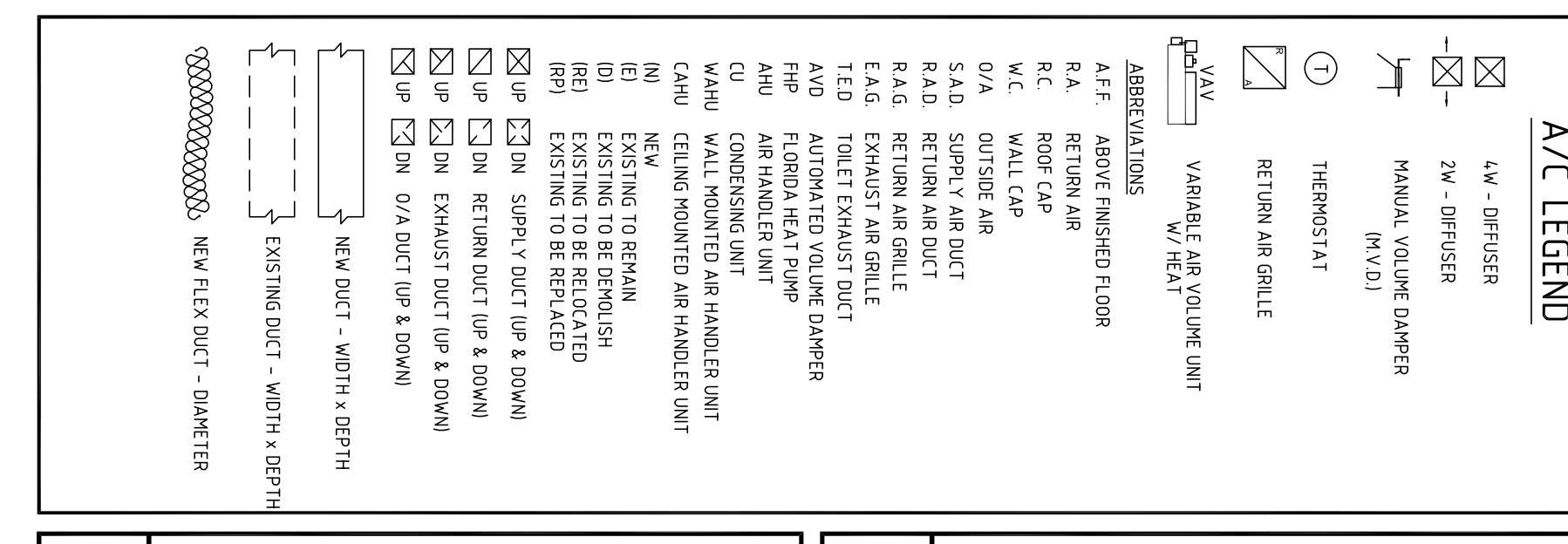
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Sheet # :

Scale :



NOTE:
CEILING SPACE IS A COMMON
PLENUM NO COMBUSTIBLE
MATERIALS ALLOWED.



DETAIL HANGER DETAIL 2

PIPE STRAP
T SHOT AND PIN

DETAIL HANGER DETAIL 2

N T S

VAV BOX UNIT SCHEDULE

UNIT TAG	MANUF. & MODEL#	TYPE	INLET DIA. (IN)	INlet (CFM)	MAX CFM	KW	STEPS	VOLTAGE	LEAKAGE (LBT) W/HEAT	LEAKAGE (LBT) W/O HEAT	WEIGHT (LBT) W/HEAT	WEIGHT (LBT) W/O HEAT
VAV-322	EXISTING	SGD DUCT	EXISTING	58	1480	N/A	-	EXISTING	EXISTING	EXISTING	N/A	N/A

AIR TERMINAL SCHEDULE (TITUS)

SERVICE	SYSTEM	LOCATION	ACCESSORIES	MANUFACTURE	MODEL	DESCRIPTION
A	SUPPLY	CEILING	0.0.0	TITUS (OR MATCH EXISTING)	MODEL NO. TOR-CA (OR MATCH EXISTING)	15" X 15"
BA	RETURN	CEILING	0.0.0	TITUS (OR MATCH EXISTING)	MODEL NO. 3504L (OR MATCH EXISTING)	SET PLANS FOR SIZE

ARTERIAL DUCTS
2) STANDARD FINISH TO BE WHITE FOR ALL DEVICES
3) ALL DIFFUSERS TYPES SHOWN NOT BE USED

VENTILATION PER F.C.C. 4033
VENTILATION PER TABLE 403.3
OCCUPANCY BREAK ROOM
CFM/PSF - 5
CFM/PSF - 0.06
O/A REQUIRED (14' x 15' x 15') = 4033 CFM

AIR CONDITIONING SPECIFICATION

- A. GENERAL
 1. AIR CONDITIONING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS, ELEVATIONS, EXISTING MECHANICAL SYSTEMS AND EQUIPMENT, AND RECORD ALL FINDINGS IN A DETAILED REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 2. THE ENGINEER SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS, LOCATIONS, DIMENSIONS, ELEVATIONS, EXISTING MECHANICAL SYSTEMS AND EQUIPMENT, AND RECORD ALL FINDINGS IN A DETAILED REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 3. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE THE ADVISED SCOPE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 4. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPPLIES NECESSARY TO ACCOMPLISH THE WORK SHOWN AND NOTED ON THE DRAWINGS. THE DRAWINGS ARE INTENDED TO BE USED AS A GUIDE TO THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 5. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
 6. AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT TO THE OWNER A DETAILED PROPOSED WORK PLAN, INCLUDING BUT NOT LIMITED TO: A DETAILED SCHEDULE, A DETAILED BUDGET, A DETAILED LIST OF LABORERS AND SUPPLIERS, A DETAILED LIST OF EQUIPMENT TO BE USED, A DETAILED LIST OF MATERIALS TO BE USED, A DETAILED LIST OF TOOLS TO BE USED, A DETAILED LIST OF SAFETY EQUIPMENT TO BE USED, AND A DETAILED LIST OF OTHER REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SCHEDULE, BUDGET, AND MATERIALS LIST ALL FIT ALLOCATED SPACE WORKMANSHIP.
 7. ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS MACHINER WORKER. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.
 8. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR TO ORIGINAL CONDITION ANY AND ALL DAMAGES TO BUILDINGS, EQUIPMENT, AND FURNISHINGS CAUSED BY THE CONTRACTOR DURING THE PERFORMANCE OF WORK.
 9. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPAIR/REPLACE OR REPAIR OF AND OTHER DAMAGE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- B. WORKMANSHIP
 10. ALL REFRIGERANT PIPING SHALL BE TYPE "L" OR TYPE "K" COPPER WITH W/100% COPPER OR BRASS FITTINGS.
 11. STEEL VALVES ARE NOT PERMITTED.
 12. THE AIR CONDITIONING CONTRACTOR SHALL RIM ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS (SEE PLUMBING SHEETS).
 13. INTERIOR CONDENSATE DRAIN PIPING AND REFRIGERANT SUCTION LINES SHALL BE INSULATED WITH 1/2" THICK INSULATION OR ARMAKEX 13. CONDENSATE PIPING IS NOT PERMITTED IN RETURN AIR STREAMS OR CEILING SPACES USED FOR RETURN AIR.
 - D. INSTALLATION
 14. LOCATION OF AIR CONDITIONING DUCTS AND AIR DISTRIBUTION CHANGES VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER FROM DRAWINGS AND FIELD CHECK. ALL DUCTS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES. PIPING, EQUIPMENT, ETC. SET ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES.
 15. THE AIR CONDITIONING CONTRACTOR SHALL USE VAMPED ELBOWS OR APPROVED 3 PEECE ELBOWS, SPLITTER DAMPERS WHERE INDICATED. VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES.
 16. THE AIR CONDITIONING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APPROVED MANNER TO MINIMIZE LEAKAGE.
 17. ALL WORK SHALL BE COMPLETED WITH OTHER TRADES TO AVOID ANY CONTACTS IN LOCATIONS FOR DUCTS, DIFFUSERS, GRILLES, REGISTER, PIPING, EQUIPMENT, ETC. NUMBER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION.
 - E. EQUIPMENT AND MATERIALS
 18. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FIELD-BUILT CONNECTIONS TO ALL EXIST. A/C UNITS, OR MECHANICAL EQUIPMENT, EXCEPT FOR EXHAUST HOOSES.
 19. ALL EXHAUST AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL CONSTRUCTION AND NOT INSTALLED IN ACCORDANCE WITH ASHRAE, SHAKRA, AND LOCAL CODES. ALL OUTSIDE AIR DUCTS SHALL HAVE "F" INSULATION IN AIR CONDITIONED SPACES.
 20. UNLESS NOTED AS EXISTING, ALL EQUIPMENT, PIPING, DUCTS, REGISTER, ETC. SHALL BE NEW.
 21. TERMINAL AIR DISTRIBUTION DEVICES SHALL BE TITUS, METALINE, OR MAJOR OR EQUAL OR EQUAL, AS SCHEDULED.
 22. ALL SUPPLY AND RETURN REGISTER AIR DUCT WORK SHALL BE JENSEN HANVILLE REGISTER (15" THICK) TYPE 45 OR 888 OR SHIRT AIR DUCTS SHALL BE SUPPORTED IN A STRAIGHT AND LEVEL, AS FEASIBLE AS POSSIBLE. THE ENTIRE INSTALLATION SHALL BE INSTALLED IN ACCORDANCE WITH ASHRAE, SHAKRA, AND LOCAL CODES.
 23. ALL RETURN REGISTER AIR DUCTS SHALL BE LIMITED TO LENGTHS OF 45 FEET. ALL RETURN REGISTER AIR DUCTS SHALL BE LIMITED TO LENGTHS OF 45 FEET.
 24. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTACTORS, STARTERS, RELAYS, AND WIRING IN ITS ELECTRICAL CONSTRUCTION. SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING.
 25. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE "F" THICK FIBER 30% FIBERGLASS INSULATION WITH 1/4" AIR GAP.
 26. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL UNDER APPLICABLE
 - F. SAFETY
 26. ALL PERMITS AND INSURANCE REQUIREMENTS SHALL BE PROVIDED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 27. ALL HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE ALARM AND SHUT DOWN FAN. ALL DEVICES SHALL BE INSTALLED AS REQUIRED BY LOCAL CODES ON THE JOB SITE.
 28. ALL WORK SHALL COMPLY WITH THE applicable SAFETY PRACTICES AND STANDARDS FOR THE CONSTRUCTION OF ALL NECESSARY SYSTEMS AND EQUIPMENT AS REQUIRED BY ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.
 29. THE AIR CONDITIONING CONTRACTOR SHALL VERIFY ALL MATERIALS AND EQUIPMENT ARE PROVIDED FREE FROM DEFECTS AT ALL TIMES AND SHALL VERIFY ALL MATERIALS AND EQUIPMENT AT THE END OF EACH WORKING DAY.
 - G. COMPLETION
 30. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A 48-HOUR TEST SET OF 66 DBA SOUNDING IN THE BREAKROOM CONDITION OF INSTALLATION OF FIELD CHANGES MADE FROM REVISED DRAWINGS. THE CONTRACTOR SHALL PROVIDE SCHEDULES TO THE DEPARTMENT OF HEALTH SERVICES FOR INSPECTION PRIOR TO THE START OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 31. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT PER 2098 BY CENRO CONSERVATION SEC 301.2.31 FOR ALL REFRIGERANT EQUIPMENT AND DUCTS. THE CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT PER 2098 BY CENRO CONSERVATION SEC 301.2.31 FOR ALL SUPPLY GRILLES, RETURN GRILLES, AND SPLITTER DAMPERS AND THE LEAKAGE AND ENTERING AIR TEMPERATURE FROM SUPPLY GRILLES, RETURN GRILLES, AND SPLITTER DAMPERS SHALL BE LIMITED TO 0.10% OF FLOW QUANTITIES STATED ON THE PLANS.
 32. THE AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN 12 MONTHS FROM DATE OF ACCEPTANCE. AND ALL GUARANTEES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER.
 33. IF THE NATURE OF THIS CONTRACT INVOLVES EXTENSIVE REWORKING OF THE EXISTING BUILDING, THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 34. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL CONDUCT THE EXACT LOCATION OF ALL EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FINISHED.
 35. PRESENT AIR CONDITIONING EQUIPMENT WERE INSTALLED BY THE OWNER'S FORMER CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THE INSTALLATION OF CONDUIT AND WIRE AS REQUIRED. THE INSTALLATION OF NEW EQUIPMENT THAT INTERFERES WITH EXISTING SHALL BE REMOVED, RELOCATED, OR RE-ROUTED TO PERMIT COMPLETION OF SUCH WORK.
 36. SALVAGED MATERIALS, EQUIPMENT, AND DEVICES SHALL BE DELIVERED TO THE OWNER AT HIS PROPERTY AND STORED WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 37. THE AIR CONDITIONING CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING DUCTWORK AND PIPING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 38. INTERFERENCES OF EXISTING ELECTRICAL SYSTEMS SHALL BE REPORT TO THE ENGINEER AND THE CONTRACTOR SHALL PERFORM ALL NECESSARY WORK TO RESOLVE SUCH INTERFERENCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 39. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.

MECHANICAL PLAN

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1/4" = 1'-0"

PERMIT SET: 05/16/12

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