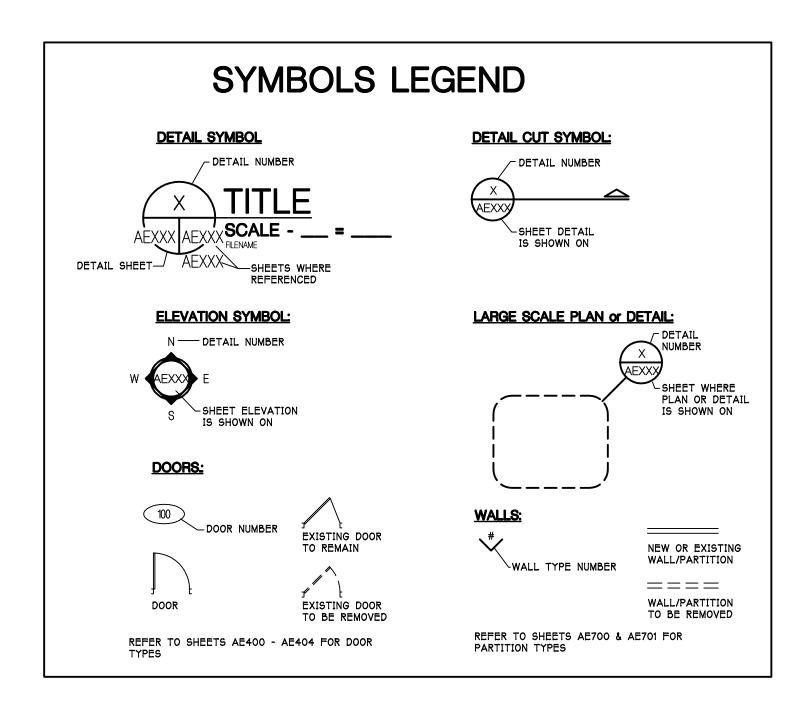
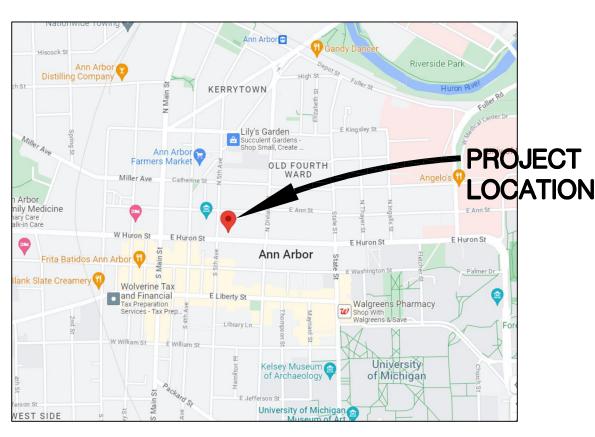
CITY OF ANN ARBOR

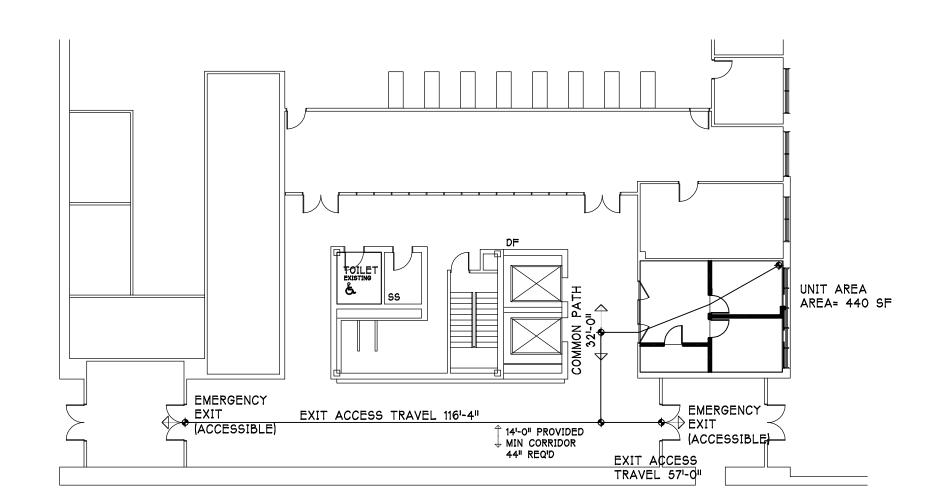
SUPPORTIVE CONNECTIONS DEFLECTION PROGRAM

JUSTICE CENTER 305 E. HURON, 4TH FLOOR ANN ARBOR, MICHIGAN 48104











GROSS AREA 6,319 SF OL= 64 PPL

ARCHITECT

HOBBS + BLACK ASSOCIATES

100 N. STATE STREET

ANN ARBOR, MI 48104

Phone: (734) 663-4189

MECHANICAL/ELECTRICAL

MA ENGINEERING
180 HIGH OAK ROAD
BLOOMFIELD HILLS, MI 48304
Phone: (248) 258-1610

OWNER

CITY OF ANN ARBOR 305 E. HURON ANN ARBOR, MI 48104

CONTRACTOR

TENANT AREA GROSS BUILDING AREA PER MBC 2015 DEFINITION THE FLOOR AREA WITHIN THE INSIDE PERIMETER OF THE EXTERIOR WALLS OF THE BUILDING UNDER CONSIDERATION, EXCLUSIVE OF VENT SHAFTS AND COURTS. (SECTION 202) TOTAL GROSS: CLASSIFICATION B BUSINESS TYPE OF CONSTRUCTION CCCUPANTS CALCULATIONS PER MBC 2015; CHAPTER 10; TABLE 1004.1.2 OCCUPANT LOAD FACTOR BUSINESS TOTAL 100 sf/occ GROSS ONE 4.4 5 DONE 4.4 PPL

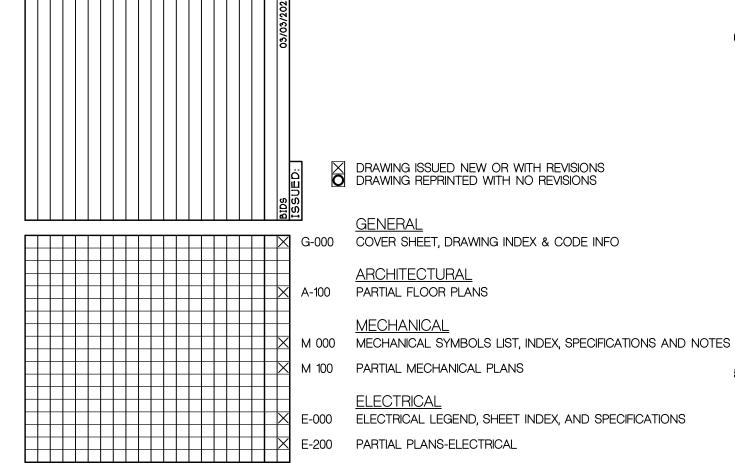
TOTAL

EXITING CALCULATIONS PER MBC 2015; CHAPTER 10	
DESIGN OCCUPANT LOAD (SECTION 1004):	5 PPL
QUANTITY OF EXITS REQUIRED (SECTION 1006):	1 (ONE LEVEL)
QUANTITY OF ACCESSIBLE EXITS REQUIRED (SECTION 1009):	1
ARRANGEMENT OF EXITS (SECTION 1007.1.1): NOT LESS THAN 1/3 OVERALL DIAGONAL DISTANCE (D)	N/A COMPLIANT
COMMON PATH OF EGRESS TRAVEL B OCCUPANCY TYPES (TABLE 1006.2.1): 100'-0"	32'-0" COMPLIANT
EXIT ACCESS TRAVEL DISTANCE B OCCUPANCY TYPE (TABLE 1017.2): MAXIMUM 300'	116'-4" COMPLIANT
MINIMUM CORRIDOR WIDTH: 44"	44" COMPLIANT
MINIMUM DOOR CLEAR WIDTH: 32"	COMPLIANT
REQUIRED EXIT CAPACITY BASED ON OCCUPANT LOAD (SECTIO	N 1005.3):
ALL OTHER EGRESS COMPONENTS: 0.15"	COMPLIANT

PLUMBING CALCULATIONS MPC 2018; TABLE 403.1

BUSINESS CONTRIBUTING OCCUPANTS HAVE BEEN CALCULATED WITHIN THE COMMON AREA

INDEX OF DRAWINGS



APPLICABLE CODES GROSS BUILDING AREA PER MBC 2015 DEFINITION BUILDING CODE: MBC 2015 ELECTRICAL CODE: MEC 2017 PLUMBING CODE: MPC 2018 MECHANICAL CODE: MEC 2018 LIFE SAFETY CODE NFPA 101 2012 INTERNATIONAL FIRE CODE IFC 2015 FIRE ALARM NFPA 72 (2013) FIRE SPRINKLER CODE NFPA 13 (2013) ICC/ANSI A117.1.2009

MICHIGAN BARRIER FREE

GENERAL NOTES

- WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE BUILDING CODES AN
 REGULATIONS INCLUDING MICHIGAN BUILDING CODE 2015
- 2. PROVIDE COMPONENTS AND ACCESSORIES FOR ACCESSIBLE ROUTES REQUIRED BY THE A (AMERICANS WITH DISABILITIES ACT) AND THE STATE OF MICHIGAN.
- FINAL LOCATION OF FIRE EXTINGUISHER CABINETS SHALL BE REVIEWED IN FIELD WITH BUILDING OFFICIAL PRIOR TO INSTALLATION ROUGH-IN.
- INTERIOR FINISH MATERIALS SHALL BE CLASS "A" AS REQUIRED BY CODE AND SHALL BE
- 5. KEEP THE CONSTRUCTION SITE IN A NEAT AND ORDERLY CONDITION AND REMOVE RUBBISH DAILY OR AS DIRECTED BY THE OWNER/ GENERAL CONTRACTOR.
- THE WORK SHALL NOT BE CONSIDERED COMPLETE AND CERTIFICATION OF THE FINAL PAYMENT WILL NOT BE MADE UNTIL DEBRIS HAS BEEN REMOVED FROM THE JOB SITE, ALL UNUSED CONSTRUCTION MATERIAL AND ITEMS HAVE EITHER BEEN REMOVED FROM THE BUILDING OR STORED AT THE OWNER'S DIRECTION.
- FIRE RATED PARTITIONS SHALL BE CONTINUOUS FROM FLOOR TO STRUCTURE ABOVE, AND SHALL BE FIRE STOPPED TIGHTLY TO STRUCTURE PER CODE. (U.L. SYSTEM)

 N/A NO RATED WALLS IN SCOPE
- . WORK SHOWN IS TO BE INCLUDED IN THE SCOPE OF WORK UNLESS OTHERWISE NOTED AS "NOT IN CONTRACT" (N.I.C.).
- ENSURE THAT SOLID BACKING IS PROVIDED FOR ANCHORAGE OF ARCHITECTURAL,
- MECHANICAL OR ELECTRICAL ITEMS.

 DIMENSIONS ARE TO FACE OF MASONRY, FACE OF GYPSUM BOARD, OR CENTERLINE OF
- COLUMN UNLESS NOTED OTHERWISE.

 DO NOT SCALE DRAWINGS. USE DIMENSIONS ONLY.
- 2. REVIEW DIMENSIONS SHOWN ON CONTRACT DOCUMENTS, SHOP DRAWINGS AND SUBMITTALS.
 REPORT INCONSISTENCIES TO ARCHITECT AND RECEIVE CLARIFICATION PRIOR TO
- 3. SHEET NUMBERS INDICATED AT SECTIONS OR DETAILS ARE FOR CONVENIENCE ONLY AND ARE NOT INTENDED TO NECESSARILY IDENTIFY ALL CONDITIONS WHERE THE SECTION OR DETAIL MAY BE REFERENCED.
- CONTRACTOR TO OBTAIN AND PAY FOR NECESSARY BUILDING PERMITS.
- EGRESS DRAWINGS ARE DIAGRAMMATIC AND DO NOT REFLECT THE MEANS AND METHODS OF CONSTRUCTION, MAINTAIN, AT A MINIMUM, CODE COMPLIANT MEANS OF EGRESS DURING
- TAKE NECESSARY PRECAUTIONS TO ISOLATE THE CONSTRUCTION AREA FROM ADJACENT AREAS THAT ARE TO REMAIN IN OPERATION DURING THE COURSE OF CONSTRUCTION. ACCESS TO ANY REQUIRED MEANS OF EGRESS WITHIN THE CONSTRUCTION AREA MUST BE MAINTAINED AND PROTECTED AT ALL TIMES.
- 17. COMPLY WITH ALL SAFETY PROCEDURES INCLUDING THE OWNER'S CONSTRUCTION GUIDELINES AND ICRA (INFECTION CONTROL RISK ASSESSMENT) REQUIREMENTS AND STANDARDS. ALL TEMPORARY AND PERMANENT WORK REQUIRED TO MEET THESE STANDARDS IS TO BE INCLUDED IN THE SCOPE OF WORK, WHETHER OR NOT SHOWN ON THE DESIGN DOCUMENTS, AND AT NO ADDITIONAL COST TO THE OWNER. SPECIFIC REQUIREMENTS AND INSTALLATION METHODS AND DETAILS ARE TO BE COORDINATED DIRECTLY WITH THE OWNER.
- ACCESSIBLE SIGNAGE TO COMPLY WITH WITH SECTION 1110 OF MBC AND SECTION 7-3 OF ICC/ANSI A117.1. SIGNAGE PROVIDED AND INSTALLED BY OWNER.
- 19. LOCATION OF ACCESSIBLE CONTROLS, OPERATING MECHANISMS AND HARDWARE TO COMPLY WITH SECTIONS 1109.13 OF THE MBC AND SECTION 309 OF ICC/ANSI A117.1
- COMBUSTIBLE ITEMS PERMITTED BY MBC SECTION 603 INCLUDE BUT ARE NOT LIMITED TO:
 INTERIOR FLOOR FINISH AND INTERIOR FINISH, TRIM AND MILLWORK SUCH AS DOORS, DOOR
 FRAMES, WINDOW SASHES AND FRAMES.
 FINISHED FLOORING APPLIED DIRECTLY TO THE FLOOR SLAB OR TO WOOD SLEEPERS
 - FINISHED FLOORING APPLIED DIRECTLY TO THE FLOOR SLAB OR TO WOOD SLEEPERS
 THAT ARE FIRESTOPPED IN ACCORDANCE WITH SECTION 717.2.7.
 BLOCKING SUCH AS FOR HAND RAILS, MILLWORK, CABINETS, AND WINDOW AND DOOR
 FRAMES.

- NAILING OR FURRING STRIPS AS PERMITTED BY SECTION 803.3.
- MATERIALS USED TO PROTECT PENETRATIONS IN FIRE-RESISTANCE-RATED ASSEMBLIES IN ACCORDANCE WITH SECTION 712.

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THECTS

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A R C
100 N. State St.
Ann Arbor, MI 4810.
P.734.663.4189

SUPPORTIVE
CONNECTIONS
LECTION PROGRAM

PROJECT

CONSULTANT

COVER SHEET DRAWING INDEX & CODE INFO

SHEET TITLE

23-325

PROJECT NUMBER

G-000

HARDWARE:

ENTRANCE / OFFICE LOCK

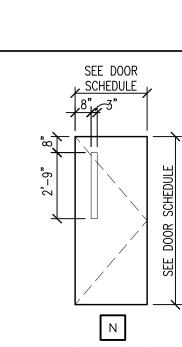
KEY CORE TO MATCH BUILDING STANDARD

EX. ENTRY DOOR (2) HARDWARE TO REMAIN

1. HARDWARE TO MATCH BUILDING STANDARD FOR INTERIOR OFFICE DOORS

GENERAL DOOR & FRAME SCHEDULE NOTES:

- A. SEE SPECIFICATION FOR HARDWARE SCHEDULE (SETS / HEADINGS). B. COORDINATE ALL DETAILS WITH WALL TYPES, INTERIOR FINISHES AND CEILING / SOFFIT CONDITIONS AS INDICATED ON THE FLOOR PLANS, AND THE REFLECTED CEILING PLANS.
- C. GLAZING IN NON-RATED DOORS/LITES TO BE 1/4" MIN. THICKNESS POLYCARBONATE GLAZING. COORDINATE GLAZING THICKNESS AT FRAMES/STOPS WITH GLAZING SUPPLIER.
- D. PROVIDE CONTINUOUS TAMPER RESISTANT SEALANT AT JOINTS BETWEEN DOOR/LITE FRAMES AND ADJACENT WALL SURFACES EACH SIDE AT HEAD/ JAMBS, AND AROUND THE BASE OF FRAMES.
- E. BOTTOM OF DOOR FRAME TO BE INSTALLED ON SURFACE OF CONC. FLOOR SLAB, (U.N.O.)
- F. PROVIDE WOOD BLOCKING AT WALL-MOUNTED DOOR HARDWARE INCLUDING, BUT NOT LIMITED TO, DOOR STOPS AND DOOR HOLDERS.
- G. EXISTING ALUMINUM AREA ENTRY DOORS TO REMAIN.



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

ABBREVIATIONS LIST:

- AL-GL ALUMINUM & GLASS
- EX EXISTING

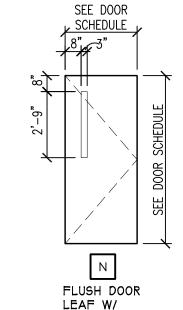
— FRAME ∣

FOR SINGLE

LEAF

DOOR

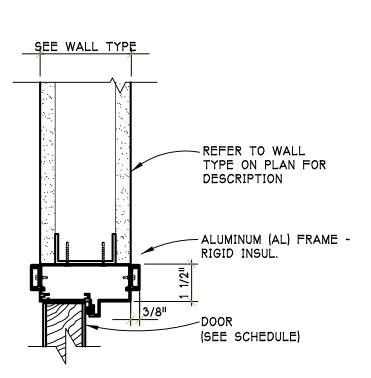
- GLASS
- PT PAINT
- HOLLOW METAL P-F PRE-FINISHED WD WOOD



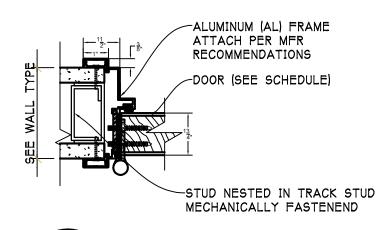
DOOR TYPES SCALE: 1/4" = 1'-0"

GLASS LITE

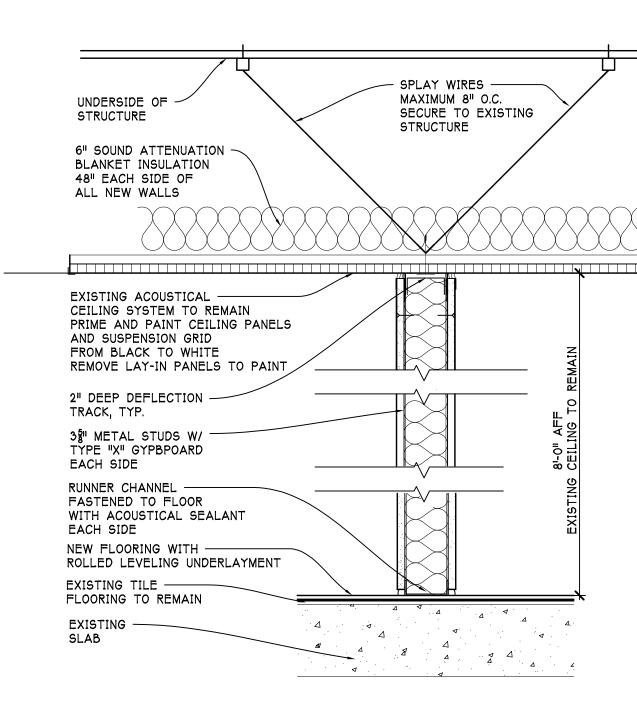
- DOOR SPECIFICATION VT INDUSTRIES
- HERITAGE COLLECTION
- FLUSH HIGH-PRESSURE DECORATIVE LAMINATE (HDPL) ACOUSTICAL
- 5-PLY CONSTRUCTION
- STC=34
- SUBMIT COLOR CARD FOR SELECTION





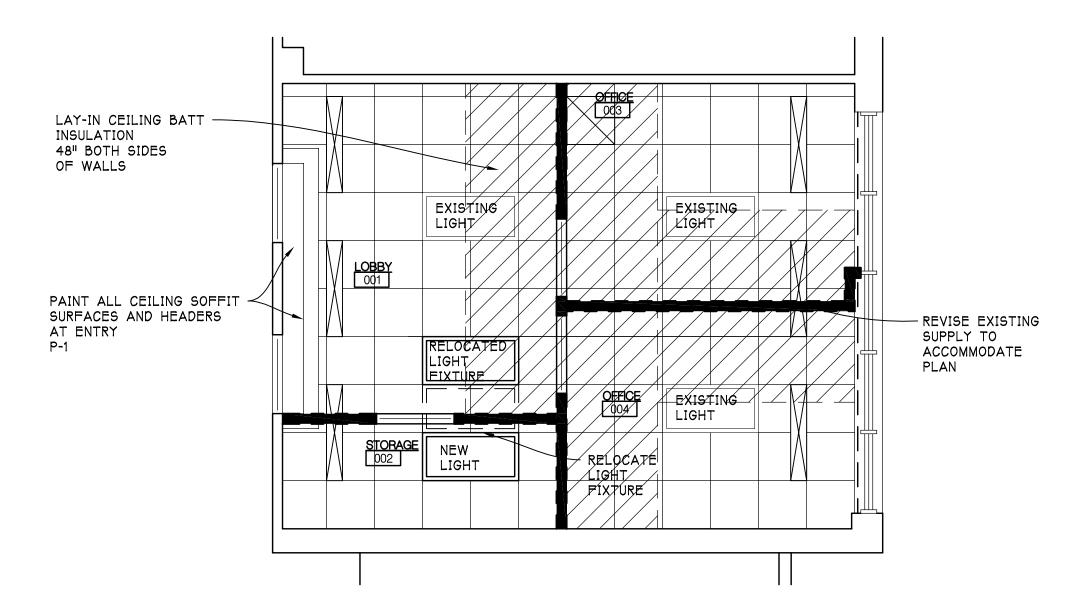






TYPE 3- FULL HEIGHT ACOUSTIC PARTITION SCALE: 1 1/2" = 1'-0"

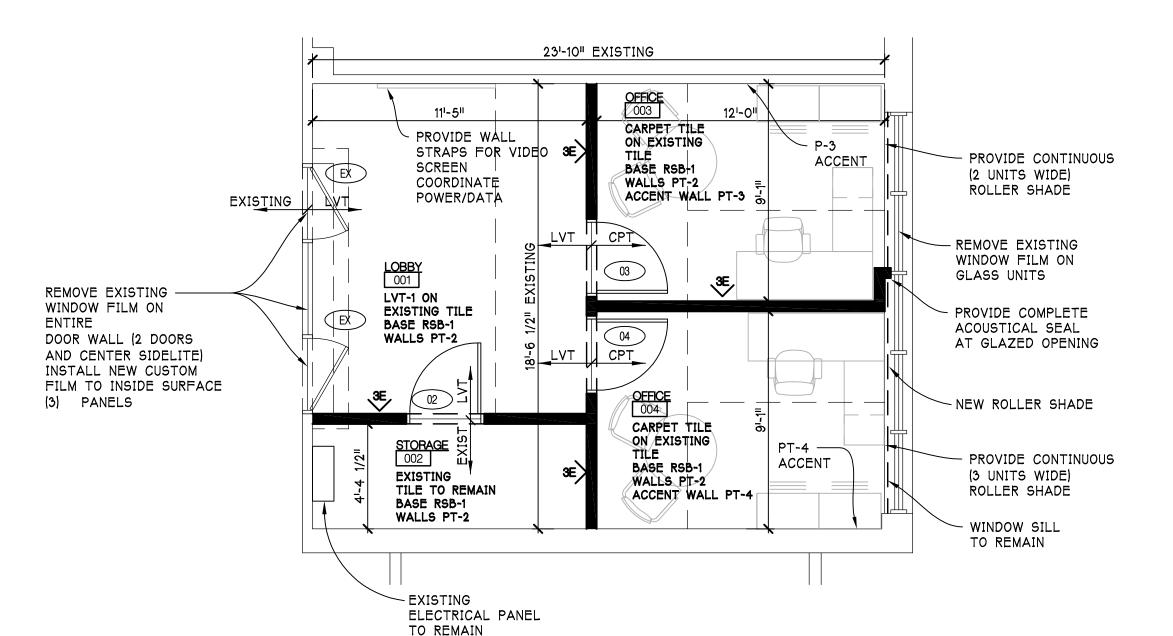
3 %" MTL. STUDS @24 O.C. W/ NOISE REDUCING BATT (STC 50)





GENERAL CEILING NOTES:

- PRIME AND PAINT EXISTING BLACK LAY-IN CEILING SYSTEM TO P-1 (CEILING WHITE), PAINT (SEMI-GLOSS) SUSPENSION GRID IN PLACE. REMOVE LAY-IN ACOUSTICAL PANELS AND PAINT (FLAT) AND REPLACE IN EXISTING GRID. NEW PANELS ARE
- ACCEPTABLE. 2. PRIME AND PAINT EXISTING BLACK SUPPLY AND RETURN
- LOUVERS FROM BLACK TO SEMI-GLOSS WHITE. PROVIDE ALTERNATE REPLACEMENT OF ACOUSTICAL LAY-IN PADS ONLY.





GENERAL FLOOR PLAN NOTES;

- PROVIDE SSTL BLANK PLATES ON ALL VACATED SERVICE BOXES.
- FILL, PATCH AND REPAIR ALL EXISTING WALL SURFACES. 3. APPLY WALL SEALANT COATING TO ENCAPSULATE GYPBOARD (PREVIOUS FOOD SERVICE).
- 4. PRIME EXISTING PAINTED BLACK GYPBOARD WALLS TO ACCEPT NEW PAINT FINISHES. EXISTING CERAMIC 12" X 24" FLOOR FINISH TO REMAIN, CLEAN AND PREP FOR NEW

С

FLOORING WHERE NOTED. MAINTAIN TILE FINISH FOR FUTURE USE. 6. REMOVE ALL SURFACE BASE AND REPLACE WITH NEW RUBBER COVE RSB-SEALED. **GENERAL NOTES:**

- 1. ALL CONSTRUCTION MATERIALS TO COMPLY WITH REQUIREMENTS AND COMMON PRACTICE ACCORDING TO EACH CONSTRUCTION SPECIFICATION SECTION PER CURRENT AIA SHORT FORM MASTERSPEC
- 2. WALLS TO BE EGGSHELL FINISH, CEILINGS TO BE FLAT, DOOR AND WINDOW FRAMES TO BE NATURAL ANODIZED ALUMINUM, UNO.

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- 3. ALL WALLS SHALL BE REPAIRED AND PAINTED
- 4. CONFIRM ACCENT PAINT WITH OWNER PRIOR TO PROCEEDING
- 5. ALL WALLS ARE CURRENTLY BLACK. WALL PRIMER TO FULLY COVER PRIOR TO FINAL COATS
- 2. PATCH AND REPAIR WALLS WHERE FIXTURES WERE REMOVED.

FINISHES:

ACOUSTICAL CEILING TILE ALTERNATE: ACT-1 (MATCH EXISTING) MANUFACTURER: ARMSTRONG WORLD INDUSTRIES PRODUCT TYPE: ULTIMA #1912

음" BEVELED REVEAL TEGULAR COLOR: WHITE

SIZE: 2'X2'X3/4"

<u>PAINT</u> MANUFACTURER: BENJAMIN MOORE COLOR: # OC-152 SUPER WHITE SHEEN: EGGSHELL

MANUFACTURER: BENJAMIN MOORE COLOR: # HC-173 EDGECOMB GREY SHEEN: EGGSHEL

MANUFACTURER: BENJAMIN MOORE COLOR: #2144-20 EUCALYPTUS CONFIRM OWNER ACCENT SHEEN: EGGSHELL

MANUFACTURER: BENJAMIN MOORE COLOR: #SW AC-22 NANTUCKET FOG CONFIRM OWNER ACCENT SHEEN: EGGSHELL

RESILIENT FLOORING

LVT-1 RIGID VINYL TILE MANUFACTURER: MOHAWK SECOND HOME WOOD COLOR: #842 BACKPACK BROWN SIZE: 7.5"X48" PLANK THICKNESS: 6MM PATTERN: RANDOM

INSTALLATION: CLICK, NOT ADHERED

INSTALLED ON EXISTING TILE FLOOR CONFIRM THE NEED FOR UNDERLAYMENT INTENT TO FLOAT THE FLOOR UNDERLAYMENT (IF REQUIRED) SHOULD NOT BE PERMANENT

CARPET TILE CPT-1 CARPET TILE MANUFACTURER: MOHAWK STYLE: WANDERING TROOP COLOR: GT354 BY THE BYE SIZE: 24"X24" PATTERN: MONOLITHIC

FLOOR BASE RB-1 RESILIENT WALL BASE MANUFACTURER: JOHNSONITE PRODUCT: DURACOVE BASE- 4" COLOR: # TB3 DOVER

STYLE: 4" HIGH, COVED ROLLER SHADES MANUAL ROLLER SHADES MANUFACTURER: HUNTER DOUGLAS PRODUCT: MANUAL ROLLER SHADE FR MECHANISM: MANUAL CONTINUOUS LOOP FABRIC: E-SCREEN #7510

10.3 oz WEIGHT

MOUNT: INSIDE

10% OPENNESS 36% FIBERGLAS, 64% VINYL WHITE/WHITE (MATCH BUILDING STANDARD COLOR) FASCIA: 4" ANODIZED ALUMINUM CONCEALED MECHANISM

CONSULTANT

PROJECT

PARTIAL FLOOR **PLANS**

SHEET TITLE

23-325

PROJECT NUMBER

A-100 SHEET NUMBER

ELECTRICAL SPECIFICATIONS **GENERAL REQUIREMENTS:**

> ELECTRICAL SHEET INDEX ELECTRICAL LEGEND, SHEET INDEX, AND SPECIFICATIONS E-000 E-200 PARTIAL PLANS — ELECTRICAL

ELECTRICAL LEGEND

LED LIGHTING FIXTURE

HALF SHADED LIGHTING FIXTURES CONNECTED TO THE EMERGENCY GENERATOR

— TYPICAL FOR ALL HALF SHADED LIGHTING SYMBOLS

EXIT LIGHTING FIXTURE S SINGLE POLE LIGHT SWITCH

S₃ THREE WAY LIGHT SWITCH

S_D DIMMER SWITCH OCCUPANCY SENSOR MULTI-TECHNOLOGY CEILING MOUNTED

DUPLEX RECEPTACLE QUAD RECEPTACLE

GFR DUPLEX RECEPTACLE ▼ COMBINATION DATA AND TELEPHONE OUTLET

JUNCTION BOX

NON-FUSIBLE DISCONNECT SWITCH

LIGHTING AND/OR RECEPTACLE PANEL DOORBELL

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PROJECT



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ELECTRICAL LEGEND, SHEET INDEX, AND **SPECIFICATIONS**

SHEET TITLE

PROJECT NUMBER

ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE PARAGRAPHS OF THESE SPECIFICATIONS.

PROVIDE RACEWAY SYSTEM, OUTLETS AND 120V RECEPTACLES AS REQUIRED. NOT ALL DEVICES/EQUIPMENT ARE INDICATED ON THESE PLANS.

COORDINATE WITH OWNER AND SYSTEM CONTRACTORS ABOVE PROVISION FOR A COMPLETE AND FUNCTIONING INSTALLATION PRIOR TO BID.

INCLUDE SECURITY, SOUND, ACCESS CONTROL AND TELECOMMUNICATIONS - SYSTEM EQUIPMENT, WIRING AND INSTALLATION WILL BE PROVIDED BY OTHERS.

RE-CERTIFY EXISTING FIRE A;ARM SYSTEM.

MISCELLANEOUS SYSTEM:

INSTALL MANUAL STATION FLUSH MOUNTED WITH OPERATING HANDLE 48 INCHES ABOVE FLOOR. INSTALL AUDIBLE AND VISUAL SIGNAL DEVICES NO MORE THAN 80 INCHES ABOVE HIGHEST FLOOR LEVEL OR 6 INCHES BELOW THE CEILING, WHICHEVER IS LOWER.

NORTH

2 PARTIAL PLAN - LIGHTING

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

2

GENERAL DEMOLITION NOTES:

- DA. REFER TO SHEET E-000 FOR ELECTRICAL LEGEND.
- PLANS, INFECTION CONTROL REPRESENTATIVE, AND OWNER'S FACILITY MANAGER.

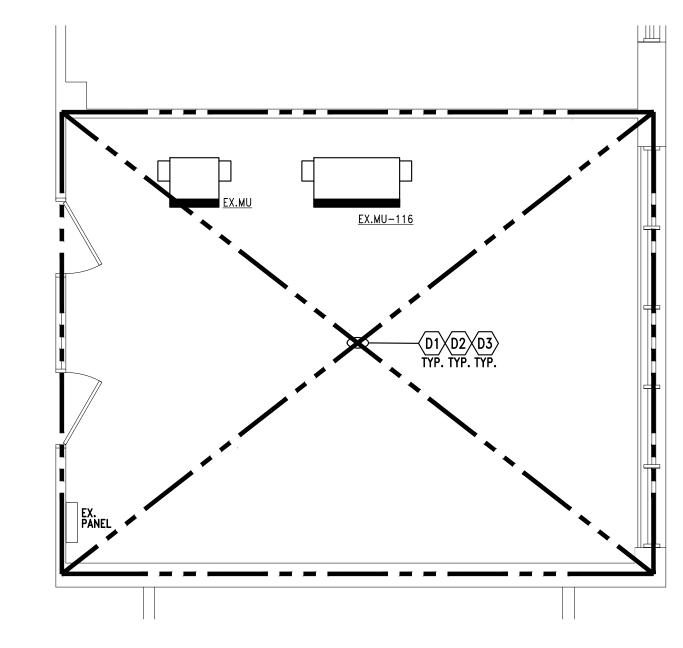
 DC. THESE DEMOLITION NOTES AND PLAN DO NOT FULLY REPRESENT ALL DEMOLITION WORK REQUIRED TO INSTALL NEW WORK IN ACCORDANCE WITH CONTRACT DOCUMENTS, BUT ARE INTENDED TO SERVE AS GENERAL DEMOLITION GUIDELINES. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF INCIDENTAL DEMOLITION WORK NOT INDICATED ON THIS PLAN.

DB. COORDINATE ALL DEMOLITION WORK WITH MECHANICAL AND ARCHITECTURAL DEMOLITION

- DD. WHERE ITEMS ARE REMOVED, PATCH SURFACES TO MATCH ADJACENT SURFACES OR TO RECEIVE NEW FINISHES WHERE SCHEDULED. PATCHING OF NEW OR EXISTING FINISHES SHALL EXTEND TO NEAREST CORNER OR NATURAL TERMINATION FOR A CONSISTENT, SMOOTH, INVISIBLE TRANSITION FINISHES AT THE END OF CONSTRUCTION.
- DE. ITEMS INDICATED AS "EX." ARE EXISTING TO REMAIN, INDICATED FOR REFERENCE ONLY. ALL CROSS HATCHED ITEMS ARE TO BE DISCONNECTED AND REMOVED.
- DF. MAINTAIN SERVICE CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME CIRCUIT WITHIN AND OUTSIDE OF DEMOLITION AREA.
- DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT AND DEVICES ON WALLS TO BE DEMOLISHED OR INTERFERING WITH THE NEW WORK, COORDINATE WITH ARCHITECT AND OWNER. DEMOLITION WORK SHALL INCLUDE ALL ASSOCIATED AND ABANDONED BOXES, CONDUITS, WIRING, SURFACE RACEWAYS, ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- DH. PROVIDE NEW TYPEWRITTEN DIRECTORIES IN ALL PANELS DISTURBED DUE TO NEW WORK. ALL SPARE BREAKERS TO BE PLACED IN "OFF" POSITION. IDENTIFY ALL CIRCUITS: EXISTING, NEW OR SPARE, REFER TO SPECIFICATIONS AND E0.1 FOR ADDITIONAL INFO.
- DI. PROVIDE COVERPLATES FOR ALL ABANDONED DEVICES, REFER TO SPECIFICATION.
- DJ. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE REVIEW OF THE AMOUNT OF DEMOLITION REQUIRED PRIOR TO BID SUBMITTAL.
- DK. THE CONTRACTOR SHALL EXERCISE ALL REQUISITE CARE NECESSARY TO ENSURE THAT ALL EXISTING EQUIPMENT, MATERIALS, FINISHES AND ASSEMBLIES WHICH ARE NOT BEING REMOVED ARE PROTECTED FROM DAMAGE DURING DEMOLITION AND SUBSEQUENT CONSTRUCTION OPERATIONS.
- DL. TRACE BACK TO PANELBOARDS ALL BRANCH CIRCUITS WITHIN THE RENOVATED AREA, EXISTING BRANCH CIRCUITS SHALL BE RE-USED FOR NEW WORK. SPARE CIRCUITS SHALL BE IDENTIFIED AS IN THE EXISTING PANELS.
- DM. ALL EXISTING REMOVED ITEMS SHALL BE TURNED OVER TO OWNER OR DISPOSED AS DIRECTED.

KEYED DEMOLITION NOTES:

- D1 DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES WITHIN THE RENOVATED AREA AND ALL ASSOCIATED LIGHTING CONTROLS.
- DISCONNECT AND REMOVE ALL EXISTING POWER AND TELECOMM. DEVICES WITHIN THE RENOVATED AREA INTERFERING WITH THE NEW WORK, NOT ALL DEVICES ARE INDICATED ON THIS PLAN, FIELD VERIFY EXISTING CONDITIONS.





GENERAL NOTES

- A. REFER TO SHEET E-000 FOR ELECTRICAL LEGEND.
- B. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS, ELEVATIONS AND SECTIONS FOR EXACT LOCATION OF ALL CEILING, PENDANT & WALL MOUNTED LIGHTING FIXTURES.
- C. COORDINATE LOCATION OF ALL SWITCHES WITH DOOR LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS.
- D. MAINTAIN SERVICE CONTINUITY TO ALL EXISTING TO REMAIN ITEMS ON THE SAME BRANCH CIRCUITS OR CONNECT TO NEAREST AVAILABLE OR PROVIDE NEW AS REQUIRED. FIELD VERIFY EXISTING CONDITIONS, TRACE BACK TO SOURCE AND IDENTIFY ALL EXISTING BRANCH CIRCUITS SERVING THE AREA.
- E. ALL ITEMS INDICATED ON THESES PLANS ARE NEW UNLESS OTHERWISE NOTED. EX.— INDICATES EXISTING ITEM TO REMAIN.
- F. PROVIDE COMPLETE ADDRESSABLE FIRE ALARM SYSTEM FOR THE RENOVATED AREA AS AN EXTENSION AND COMPATIBLE WITH THE FACILITY EXISTING FIRE ALARM. INITIATING DEVICES, INDICATING APPLIANCES, CONTROL MODULES AND WIRING AS REQUIRED BY AUTHORITIES HAVING JURISDICTION FR AN APPROVED INSTALLATION, REFER TO SPECIFICATIONS. SYSTEM SHALL BE LAYED OUT ON A PERFORMANCE BASIS, DEVICES ARE NOT INDICATED ON THESE PLANS. FIRE ALARM SYSTEM SHALL BE INTER-WIRED WITH WITH THE FACILITY EXISTING FIRE ALARM SYSTEM.
- G. PROVIDE RACEWAYS AND CONDUIT STUBS WITH PULL STRING FOR LOW VOLTAGE CABLING AS REQUESTED BY OWNER, COORDINATE WITH TECHNOLOGY CONTRACTOR AND OWNER'S IT REPRESENTATIVE.
- H. ALL CONDUITS IN FINISHED AREAS SHALL BE RUN CONCEALED IN BUILDING CONSTRUCTION, NO EXPOSED CONDUITS ARE PERMITTED.
- I. COORDINATE LOCATION OF POWER AND DATA OUTLETS WITH FINAL FURNITURE AND EQUIPMENT LAYOUT AND AS DIRECTED BY ARCHITECT/OWNER.

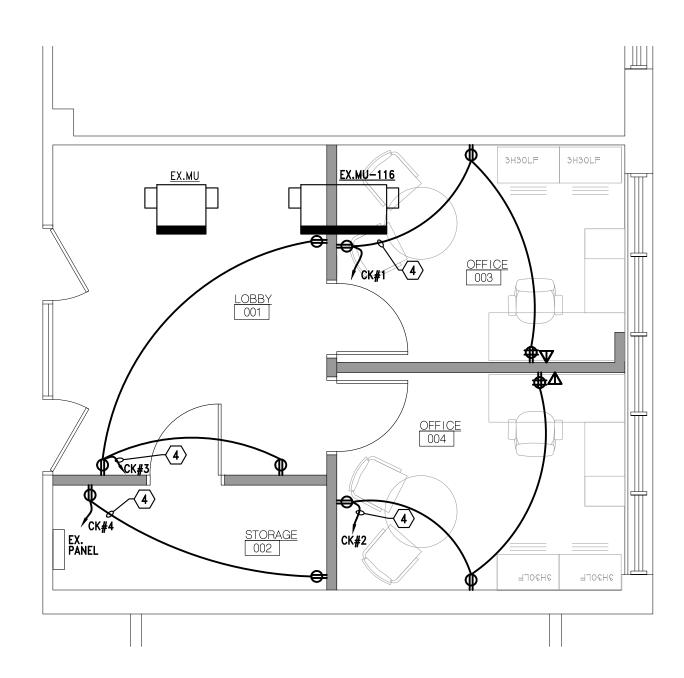
KEY NOTES:

- ALL EXIT SIGNS AND EMERGENCY FIXTURES (EM) SHALL BE WIRED TO ROOM/AREA NORMAL LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL AND/OR AUTOMATIC LIGHTING CONTROL.
- 2 HALF-SHADED LIGHTING FIXTURES ARE WIRED TO AREA EXISTING EMERGENCY LIGHTING CIRCUIT RECOVERED FROM DEMOLITION, OR PROVIDE NEW IN EXISTING SPARE AS REQUIRED, NOT TO EXCEED 16A ON A 20A/1P BRANCH BREAKER. BRANCH CIRCUIT NUMBERS INDICATED ON PLANS ARE FOR PANEL DESIGNATIONS ONLY, FIELD VERIFY EXISTING CONDITIONS.
- CONNECT NEW LIGHTING FIXTURES TO AREA EXISTING LIGHTING CIRCUIT RECOVERED FROM DEMOLITION, OR PROVIDE NEW IN EXISTING SPARE AS REQUIRED, NOT TO EXCEED 16A ON A 20A/1P BRANCH BREAKER. BRANCH CIRCUIT NUMBERS INDICATED ON PLANS ARE FOR PANEL DESIGNATIONS ONLY, FIELD VERIFY EXISTING CONDITIONS.
- CONNECT NEW RECEPTACLE TO EXISTING BRANCH CIRCUITS RECOVERED FROM DEMOLITION OR PROVIDE NEW 20A/1P BREAKER IN EXISTING PANEL SPARE/SPACE, NOT TO EXCEED 16A ON A 20A/1P BRANCH BREAKER, FIELD VERIFY AND TRACE BACK TO SOURCE BRANCH CIRCUITS, BRANCH CIRCUIT NUMBERS INDICATED ARE FOR PANEL DESIGNATIONS ONLY.

LIGHTING FIXTURE SCHEDULE:

- "A" LED RECESSED LAY-IN 2'x4' LIGHTING FIXTURE, CURVED LINEAR PRISM CENTER LENS, WHITE FINISH, 120-277V, 0-10V DIMMING ELECTRONIC DRIVER, 53W, 6000LM. LITHONIA #2BLT4-60L-ADP-EZ1 OR APPROVED EQUAL.
- "B" LED SURFACE OR PENDANT MOUNTED 4' STRIPLIGHT LIGHTING FIXTURE, WITH WIRE GUARD, COLD—ROLLED STEEL HOUSING, WITH BUILT—IN EMERGENCY BATTERY PROVIDE 10W, 872 LUMENS, 90 MIN. OPERATION INTEGRAL CHARGE INDICATOR AND TEST, 120/277V, ELECTRONIC HPF DRIVER, 5000 LUMENS 38W. METALUX 'SNLED' #4-SNLED-LD5-50SL-SLN-UNV.
- "X" LED UNIVERSAL MOUNT THERMOPLASTIC EXIT SIGN, SINGLE OR DOUBLE FACE AND DIRECTIONAL ARROWS AS INDICATED, RED STENCIL LETTERS, CLEAR OR MIRROR FOR DOUBLE FACE, RED LETTERS, 120–277 INPUT AND AC OPERATION CONNECTED TO THE EMERGENCY. LIGHTALARMS 'GRANDE' SERIES OR APPROVED EQUAL.

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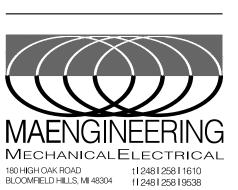
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PROJECT



CONSULTANT

PARTIAL PLANS
- ELECTRICAL

SHEET TITLE

23-325

PROJECT NUMBER

E-200

MECHANICAL MATERIALS, METHODS AND EXECUTION WORK INCLUDED:

A. FURNISH ALL LABOR AND MATERIAL, APPLIANCES, EQUIPMENT AND SUPERVISION TO PUT IN PLACE A COMPLETE AND FUNCTIONING MECHANICAL INSTALLATION READY FOR OPERATION, AS SPECIFIED HEREIN AND AS INDICATED ON THE DRAWINGS. SYSTEMS SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO THE FOLLOWING MAJOR EQUIPMENT OR OPERATIONS:

- HEATING, VENTILATING AND AIR CONDITIONING.
- INSULATION. FIRE PROTECTION

TEMPERATURE CONTROLS.

A. "PROVIDE": TO FURNISH AND COMPLETELY INSTALL SPECIFIED PRODUCTS AND INCIDENTALS, WHETHER SPECIFICALLY INDICATED OR NOT, NECESSARY FOR A COMPLETE, FUNCTIONAL INSTALLATION. INCLUDES ALL GENERAL AND SPECIALIZED LABOR, EQUIPMENT AND TOOLS NECESSARY TO COMPLETE THE INSTALLATION.

B. "PIPING": A COMPLETE SYSTEM, INCLUDING PIPE, TUBING, FITTINGS, HANGERS, SUPPORTS, VALVES, AND ALL SPECIALTIES THAT COMPRISE A FULLY FUNCTIONAL PIPING SYSTEM, WHETHER SPECIFICALLY INDICATED OR NOT.

CODES, ORDINANCES, AND STANDARDS: A. ALL WORK SHALL CONFORM IN ALL RESPECTS TO THE REQUIREMENTS OF THE LATEST ADOPTED FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND STANDARDS HAVING JURISDICTION OVER THE WORK. B. WHERE CONTRACT DOCUMENT REQUIREMENTS EXCEED THE REQUIREMENTS OF THE REFERENCED CODES, ORDINANCES, AND

STANDARDS, THE CONTRACT DOCUMENT REQUIREMENTS SHALL BE TAKEN AS MINIMUM. ALL EQUIPMENT CONTAINING ELECTRICAL WIRING AND/OR ELECTRICAL COMPONENTS SHALL HAVE A UNDERWRITERS LABORATORIES (UL) "PACKAGE" LABEL.

D. ALL GAS FIRED EQUIPMENT SHALL HAVE THE AMERICAN GAS ASSOCIATION (AGA) LABEL.

A. SECURE ALL NECESSARY PERMITS, CONNECTION FEES, TAD FEES, LICENSES AND APPROVALS AND ARRANGE FOR ALL INSPECTIONS,

INCLUDE ALL RELATED COSTS. B. FURNISH CERTIFICATES OF FINAL INSPECTION AND APPROVAL UPON COMPLETION OF PROJECT.

SITE CONDITIONS, OR EXISTING CODE VIOLATIONS WHICH MAY AFFECT THE WORK. B. NOTIFY ARCHITECT PRIOR TO SUBMITTING BID IF REVISIONS TO CONTRACT DOCUMENTS ARE NECESSARY TO RECTIFY ANY OF THE NO "EXTRAS" TO CONTRACT PRICE WILL BE ALLOWED AFTER RECEIVING BID IN ORDER TO RECTIFY EXISTING CONDITIONS IN ORDER TO MEET THE DESIGN INTENT OF THE CONTRACT DOCUMENTS OR SATISFY CODE REQUIREMENTS.

A. VISIT PROJECT SITE AND BECOME FULLY COGNIZANT OF ALL EXISTING ARCHITECTURAL, MECHANICAL, ELECTRICAL, STRUCTURAL AND

A. COORDINATE ALL WORK BEFORE AND DURING CONSTRUCTION WITH ALL OTHER AFFECTED TRADES. WHERE INTERFERENCES DEVELOP, NOTIFY ARCHITECT FOR RESOLUTION OF CONFLICT.

C. RELOCATION OF CONFLICTING INSTALLED WORK, DUE TO LACK OF COORDINATION, OR POOR COORDINATION WILL NOT BE CONSIDERED EXTRA WORK.

A. USE ONLY MATERIALS SPECIFICALLY INDICATED IN CONTRACT DOCUMENTS, OR COMPARABLE MATERIALS BY OTHER LISTED ACCEPTABLE MANUFACTURERS. NOTE THAT "ACCEPTABLE MANUFACTURER" DOES NOT CONSTRUE AUTOMATIC APPROVAL OF SPECIFIC MATERIALS BY ONE OR ALL OF THE LISTED ACCEPTABLE MANUFACTURERS. ARCHITECT AND/OR ENGINEER OF RECORD RESERVES THE RIGHT OF FINAL DETERMINATION OF ACCEPTABILITY OF EACH ITEM.

SUBMIT COMPLETE SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT INTENDED FOR USE ON THIS PROJECT. B. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL PHYSICAL, PERFORMANCE AND ELECTRICAL CHARACTERISTICS FOR ALL MATERIALS

AND EQUIPMENT. SUBMIT ELECTRONIC COPY OF ALL SHOP DRAWINGS FOR REVIEW. D. NO WORK IS TO BE INSTALLED PRIOR TO RETURN OF ARCHITECT REVIEWED SHOP DRAWINGS.

SPECIFICALLY INDICATED TO BE DEMOLISHED. INCLUDE ALL RELATED COSTS.

OPERATING AND MAINTENANCE INSTRUCTIONS:

A. PRIOR TO FINAL ACCEPTANCE BY OWNER, PROVIDE ALL PERSONNEL, EQUIPMENT, AND LABOR AS NECESSARY TO INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION AND MAINTENANCE OF THE SYSTEMS AND EQUIPMENT INSTALLED IN THIS PROJECT. PROVIDE INSTRUCTIONAL SESSION DURING TIME PERIOD AGREED TO WITH OWNER.

A. ALL CUTTING AND PATCHING SHALL BE PROVIDED BY THE GENERAL TRADES UNDER THE DIRECTION OF THE MECHANICAL TRADES. COST WILL BE PAID BY THE MECHANICAL TRADE REQUESTING THE WORK. B. RESTORED SURFACES SHALL BE OF SAME MATERIALS AND QUALITY AS ADJACENT SURFACES, AND SHALL MATCH SURROUNDING

SURFACES, AND/OR BE RESTORED TO PRE-CONSTRUCTION CONDITION. A. PROTECT FROM ALL DAMAGE, EXISTING SERVICES (I.E., GAS, WATER, ELECTRICAL, ETC.), ENCOUNTERED IN THE WORK, NOT

B. REPAIR AND/OR REPLACE EXISTING ACTIVE SERVICES INTENDED TO REMAIN IN SERVICE, BUT DAMAGED DURING THE COURSE OF

CONSTRUCTION. ABSORB ALL RELATED COSTS. NO "EXTRAS" WILL BE PAID TO RESTORE EXISTING ACTIVE SERVICES DAMAGED DURING

CONSTRUCTION. C. ARCHITECT WILL DETERMINE COURSE OF ACTION WHEN EXISTING INACTIVE SERVICES ARE DAMAGED DURING COURSE OF CONSTRUCTION. ABSORB ALL COSTS RELATIVE TO ADDITIONAL DEMOLITION, TERMINATION, RELOCATION AND/OR RESTORATION OF EXISTING, DAMAGED INACTIVE SERVICES AS DIRECTED BY ARCHITECT.

ELECTRICAL WORK:

A. PROVIDE ALL ELECTRICAL WORK ASSOCIATED WITH, AND NECESSARY TO COMPLETE THIS PROJECT, WHICH IS NOT INCLUDED AS ELECTRICAL TRADES WORK.

B. PROVIDE ALL ELECTRICAL WORK, AS APPLICABLE, IN ACCORDANCE WITH DIVISION 16 REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION (WITH ELECTRICAL TRADES) OF CORRECT VOLTAGES FOR ALL MECHANICAL EQUIPMENT. IN CASE OF DISCREPANCY, NOTIFY ENGINEER IMMEDIATELY AND PRIOR TO SHOP DRAWING SUBMITTALS. FAILURE TO COMPLY WITH THIS REQUIREMENT HOLDS THE CONTRACTOR FULLY RESPONSIBLE FOR ANY SUBSEQUENT PROBLEMS

A. PRIOR TO FINAL ACCEPTANCE BY OWNER, THOROUGHLY CLEAN ALL WORK INSIDE AND OUT AS APPLICABLE, AND LEAVE ALL SYSTEMS AND EQUIPMENT IN PERFECT WORKING ORDER. THOROUGHLY CLEAN ALL PLUMBING FIXTURES, EXPOSED PIPING, FLOOR DRAIN GRATES, AND CLEANOUT COVERS AS APPLICABLE.

A. REFER TO ARCHITECTURAL SPECIFICATIONS FOR GUARANTEES, IF NONE EXIST THE FOLLOWING MINIMUM GUARANTEES SHALL BE PROVIDED.

- 1. PROVIDE A ONE (1) YEAR GUARANTEE COVERING ALL LABOR AND MATERIAL PROVIDED IN THIS PROJECT. GUARANTEE SHALL INCLUDE ALL SHIPPING AND TRANSPORTATION CHARGES NECESSARY TO RETURN DEFECTIVE MATERIALS TO MANUFACTURER, AS WELL AS LABOR CHARGES NECESSARY TO REMOVE AND REPLACE DEFECTIVE MATERIALS. PROVIDE 5 YEAR GUARANTEE FOR ALL COMPRESSORS.
- 3. DEFECTIVE MATERIALS AND/OR EQUIPMENT MAY BE REPAIRED IN LIEU OF REPLACED WITH PRIOR APPROVAL OF ARCHITECT AND/OR OWNER.

SHEET METAL NOTES:

INSTALL TRANSFER GRILLES IN ALL FULL HEIGHT PARTITIONS TO ALLOW RETURN AIR FLOW. SIZE PER MECHANICAL ENGINEER REQUIREMENTS. THESE SHALL BE FIRE DAMPERS IN RATED WALLS.

BLANK-OFF RETURN DUCTWORK IN AREAS OF WORK THAT CREATES DUST TO PREVENT DEBRIS FROM ENTERING MECHANICAL SYSTEM.

MEDIUM PRESSURE DUCTWORK: DUCTWORK ON INLET OF V.A.V. BOXES SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "HIGH PRESSURE DUCT CONSTRUCTION STANDARDS".

ALL DUCTWORK ON DISCHARGE OF V.A.V. BOXES, ALL RETURN AIR DUCTWORK AND EXHAUST AIR DUCTWORK SHALL BE CONSTRUCTED AND SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST SMACNA'S ISSUE OF "LOW PRESSURE DUCT CONSTRUCTION STANDARDS".

IN ADDITION, ALL JOINTS AND SEAMS SHALL BE SEALED WITH DUCT SEALANT EQUAL TO FOSTER #32-14. APPROVED SEALANT MANUFACTURERS: 3M COMPANY, BENJAMIN FOSTER COMPANY, UNITED SHEET METAL, FLINTKOTE.

ALL ROUND TAKE-OFFS DOWNSTREAM OF TERMINAL UNITS SHALL BE MADE WITH CONICAL TAKE-OFF SPIN-IN FITTINGS TYPE SM-2DG, WITH FACTORY INSTALLED ADJUSTABLE DAMPER AS MANUFACTURED BY GENERAL ENVIRONMENT CORPORATION, GLENDALE, CALIFORNIA OR

FLEXIBLE CONNECTIONS:

AT EACH POINT OF CONNECTION OF DUCTWORK TO FANS, PROVIDE A FLEXIBLE CONNECTION, VENTFABRICS, INC., "VENTGLAS L.A." NOT LESS THAN 12" IN LENGTH AND MADE OF HEAVY GRADE GLASS FABRIC DOUBLE COATED WITH NEOPRENE AND PROVIDED WITH A SUITABLE FRAME AT EACH END ARRANGED FOR BOLTING TO INLET AND OUTLET OF FAN AND DUCTWORK, RESPECTIVELY.

FOR RANGE HOOD EXHAUST FANS, WHERE INDICATED, PROVIDE VENTFABRICS, INC., "VENTBESTOS" FLEXIBLE CONNECTIONS. ALL AS APPROVED BY THE FIRE MARSHAL, AND ANY OTHER LOCAL AUTHORITY HAVING JURISDICTION.

VANES AND DEFLECTORS:

ALL ELBOWS AND TURNS SHALL BE MADE WITH A RADIUS NOT LESS THE 1-1/2" TIMES THE DUCT DIAMETER OR WIDTH. WHERE BUILDING CONSTRUCTION DOES NOT PERMIT A LONG RADIUS ELBOW OR TURN OR IF SHOWN ON THE CONTRACT DOCUMENTS, ACOUSTICAL TURNING VANES AND DEFLECTORS SHALL BE

FLEXIBLE DUCTWORK:

ALL LOW PRESSURE AND HIGH PRESSURE FLEXIBLE DUCT SHALL BE FLEXMASTER USA, INC., TYPE #8M INSULATED FLEXIBLE DUCT CONSISTING OF A FACTORY FABRICATED ASSEMBLY OF A TRILAMINATE ALUMINUM FOIL, FIBERGLASS AND POLYESTER. THE FLEXIBLE DUCT SHALL BE UL LISTED 181 CLASS 1 AIR DUCT AND COMPLY WITH NFPA 90A AND 90B AND HAVE A FLAME SPREAD OF NOT OVER 25 AND A SMOKE DEVELOPED OF NOT OVER 50. THE FLEXIBLE DUCT SHALL HAVE A MINIMUM PRESSURE RATING OF 12" WC THROUGH TEMPERATURE RANGE OF -20 DEGREES F. TO + 250 DEGREES F.

DUCT INSULATION:

ALL DUCTWORK SHALL BE THERMALLY INSULATED OR ACOUSTICALLY LINES:

-OUTSIDE AIR INTAKE AND RELIEF PLENUMS AND DUCTS.

-RELIEF AIR DUCT DOWNSTREAM OF RELIEF AIR DAMPER. ALL DUCT INSULATION SHALL HAVE A FLAME SPREAD CLASSIFICATION OF 25 OR LESS, A FUEL CONTRIBUTED RATING OF 35 OR LESS AND SMOKE DEVELOPED RATING OF 50 OR LESS, AS RATED BY UNDERWRITERS' LABORATORIES BLANKET TYPE (UP TO 1-1/2 LB./CU. FT. INSULATION):

INSULATION WITH ATTACHED FACING SHALL BE SECURED TO THE DUCTS WITH ADHESIVE APPLIED IN 6" BRUSH WIDTHS EVERY 12". THE ADHESIVE SHALL BE RIDGED SLIGHTLY BY USING A SERRATED TROWEL. INSULATION WITHOUT ATTACHED FACING (PLAIN) SHALL BE SECURED TOT HE DUCTS THE SAME AS ABOVE THEN BIND WITH TYING CORD, SPIRAL WRAPPED OR HALF HITCHED. DUCT FITTINGS SHALL BE INSULATED BY WRAPPING WITH A GLASS FIBER BLANKET. BLANKETS SHALL BE SECURED TOT HE DUCT FITTINGS BY INSULATION STAPLES OR JUTE TWINE. THE BLANKET SHALL BE COVERED WITH AN OPEN MESH CLOTH OR GLASS FIBER HEAVILY COATED WITH VAPOR BARRIER ADHESIVE. THE INSULATION THICKNESS SHALL BE EQUAL TO THE THICKNESS OF THE INSULATION ON THE ADJOINING DUCTWORK. ACOUSTICAL LINING:

ACOUSTIC INSULATION SHALL BE JOHNS-MANVILLE OR EQUAL "LINACOUSTIC" WITH A .70 NRC, 1-1/2"/CU.FT. MINIMUM DENSITY, 1" THICK UNLESS OTHERWISE NOTED. INSULATION SHALL BE SUITABLE FOR VELOCITIES OF 5,000 FPM. ABSOLUTE ROUGHNESS FACTOR SHALL NOT EXCEED .0008 FEET. SCOPE: DUCTWORK AND EQUIPMENT LISTED BELOW AND/OR NOTED ON THE CONTRACT DOCUMENTS SHALL BE ACOUSTICALLY LINED RECTANGULAR SUPPLY DUCTWORK FROM ALL TERMINAL BOXES TO GRILLES, REGISTERS AND DIFFUSERS. ROUND DUCTWORK ON DISCHARGE ON TERMINAL BOXES SHALL BE INSULATED EXTERNALLY UNLESS OTHERWISE NOTED.

TESTING AND BALANCING:

TEST AND ADJUST ALL NEW PIPING SYSTEMS INSTALLED IN THIS PROJECT. PROVIDE ALL TESTING INSTRUMENTS, GAUGES, PUMPS AND OTHER EQUIPMENT REQUIRED OR NECESSARY FOR TEST. REPAIR ALL DEFECTS DISCLOSED BY TESTS WITHOUT ADDITIONAL COST TO THE OWNER. REPEAT TESTS AFTER ANY DEFECTS DISCLOSED ARE REPAIRED OR REPLACED, UNLESS WAIVED BY ARCHITECT. ARRANGE AND PAY THE COST OF ALL UTILITIES USED ON TESTS. COMPLETE ALL TESTS BEFORE COVERING IS APPLIED. ISOLATE ALL PIPING SYSTEM COMPONENTS NOT CONSTRUCTED TO WITHSTAND TEST PRESSURES.

TEST AT 150 PSIG FOR EIGHT (8) HOURS WITH ZERO LOSS IN PRESSURE. CHECK JOINTS AND FITTINGS FOR LEAKS WITH LIQUID SOAP

THE DRAINAGE SYSTEM SHALL BE TESTED IN ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS AND IN THE PRESENCE OF THE PROPER INSPECTOR. AIR TEST SHALL BE 5 PSIG AND SHALL REMAIN IN OPERATION FOR A PERIOD OF 15 MINUTES.

ALL GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH RULES AND REGULATIONS OF THE COMPANY OR UTILITY SERVING THE PROJECT, AND IN ANY CASE SHALL NOT BE LESS THAN THE FOLLOWING: THE PIPING SYSTEM OR PORTIONS OF THE PIPING SYSTEM TO BE TESTED SHALL BE SUBJECTED TO AN AIR PRESSURE, USING OIL-FREE COMPRESSOR AIR, OF NOT LESS THAN 100 POUNDS PER SQUARE INCH, EQUAL 204" OF MERCURY. THE PRESSURE SHALL BE APPLIED WITH A FORCE PUMP AND SHALL BE MAINTAINED FOR NOT LESS THAN 30 MINUTES WITHOUT LEAKAGE. A MERCURY COLUMN GAUGE SHALL BE USED IN MAKING THE TESTS. TESTS SHALL BE SCHEDULED WITH LOCAL AUTHORITY FOR PRESENCE OF PROPER INSPECTOR. THE CONTRACTOR INSTALLING THESE PIPING SYSTEMS SHALL BE HELD RESPONSIBLE FOR THE TEST AND SHALL CERTIFY THE APPLICATION AND SHALL CERTIFY THE APPLICATION AND SUCCESS OF THE TEST. NATURAL GAS LINES SHALL BE BLOWN OUT WITH DRY, OIL-FREE COMPRESSED

AIR BALANCING: BALANCE ALL OUTLETS AND TERMINAL BOXES TO WITHIN 10% OF RATED C.F.M IN ACCORDANCE WITH AABC AND NEBB, SUBMIT

DEMOLITION DRAWINGS ARE DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF THE WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, PLUMBING FIXTURES, DUCTS, PIPING AND APPROXIMATE SIZES AND APPROXIMATE LOCATIONS. DO NOT SCALE DRAWINGS FOR EXACT MEASUREMENTS. ALL MECHANICAL WORK SHOWN ON THE DEMOLITION DRAWINGS HAS BEEN TAKEN FROM THE OWNER'S RECORD DRAWINGS AND/OR

CERTAIN FIELD OBSERVATIONS. EXACT SIZES, LOCATIONS, ARRANGEMENT AND ELEVATIONS OF ALL EXISTING MECHANICAL EQUIPMENT, EXISTING PLUMBING FIXTURES, EXISTING DUCTWORK, EXISTING PIPING AND EXISTING MECHANICAL DEVICES SHALL BE VERIFIED IN THE THE CONTRACTOR SHALL INCLUDE, IN HIS QUOTE, ALLOWANCES FOR REASONABLE DEVIATIONS BETWEEN WHAT IS SHOWN AND ACTUAL JOB CONDITIONS IN ORDER TO COMPLETE THE WORK IN THE SCOPE INDICATED.

REMOVE, RECONNECT, CAP, PLUG AND REPLACE EXISTING PIPING AND DUCTWORK ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS.

REMOVE AND/OR REPLACE EXISTING EQUIPMENT, VALVES, CONTROLS, ETC., ONLY WHERE INDICATED IN THE CONTRACT DOCUMENTS. INTERRUPTION OF EXISTING ACTIVE PIPING: WHERE THE WORK MAKES TEMPORARY SHUT-DOWNS OF SERVICE UNAVOIDABLE SHUT-DOWN AT TIME AS APPROVED BY THE OWNER, WHICH WILL CAUSE LEAST INTERFERENCES WITH ESTABLISHED OPERATING ROUTINE. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME, IF REQUIRED TO MAKE NECESSARY CONNECTION TO EXISTING WORK. UNLESS SPECIFICALLY NOTED TO THE CONTRARY, REMOVED MATERIALS SHALL NOT BE REUSED IN THE WORK. SALVAGE MATERIALS THAT ARE TO BE REUSED SHALL BE STORED SAFE AGAINST DAMAGE AND TURNED OVER TO THE APPROPRIATE TRADE FOR REUSE. SALVAGED MATERIALS OF VALUE THAT ARE NOT TO BE REUSED SHALL REMAIN THE PROPERTY OF THE OWNER UNLESS POSSESSION RIGHTS ARE WAIVED. THE MATERIALS ARE TO BE REMOVED FROM THE SYSTEMS BY THIS CONTRACTOR AND TURNED OVER TO THE OWNER IN THEIR ORIGINAL CONDITIONS. THE OWNER SHALL MOVE AND STORE THE MATERIALS. WHERE THE OWNER WAIVES POSSESSION RIGHTS, THESE MATERIALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR, WHO SHALL REMOVE AND LEGALLY DISPOSE OF THE SAME, AWAY FROM THE PREMISES.

ABBREVIATIONS

HVAC LEGEND & SYMBOLS

18x6

22x14ø

-1/44/44/44/4-

ACCU	AIR CONDITIONING CONDENSING UNIT	F	FAHRENHEIT
AD	ACCESS DOOR	FD	FLOOR DRAIN
AFF	ABOVE FINISHED FLOOR	FLR	FLOOR
AHU	AIR HANDLING UNIT	FPM	FEET PER MINUTE
AP	ACCESS PANEL	FSW	FLOW SWITCH
ASR	AUTOMATIC SPRINKLER RISER	FS 	FLOOR SINK
-		FT.	FEET
BTU	BRITISH THERMAL UNIT	GPM	GALLONS PER MINUTE
CC	COOLING COIL		HACE DIDD
CF	CENTRIFUGAL FAN	HB	HOSE BIBB
CFM	CUBIC FEET PER MINUTE	HO	HUB OUTLET
CI	CAST IRON	HP	HORSEPOWER
CO	CLEAN OUT	HW	HOT WATER (POTABLE)
COND	CONDENSATE	HWR	HOT WATER RETURN (POTABLE)
CONT	CONTINUATION	IN	INCHES
CUH	CABINET UNIT HEATER	INL	INLET
CW	COLD WATER		
CWS	CHILLED WATER SUPPLY	INV	INVERT
CWR	CHILLED WATER RETURN	LAT	LEAVING AIR TEMPERATURE
		LAV	LAVATORY
Db	DRY BULB TEMPERATURE, °F	LBS/HR	POUNDS PER HOUR
dB	DECIBELS	LWT	LEAVING WATER TEMPERATURE
DDC	DIRECT DIGITAL CONTROL		
DET	DETAIL	MAX.	MAXIMUM
DIA	DIAMETER	MBH	1000 BTU/HR
DN.	DOWN	MECH	MECHANICAL
DS	DOWNSPOUT	MIN.	MINIMUM
DWG.	DRAWING	MISC	MISCELLANEOUS
EA	EXHAUST AIR	NC	NORMALLY CLOSED
ECUH	ELECTRIC CABINET UNIT HEATER	NIC	NOT IN CONTRACT
EF	EXHAUST FAN	NO	NORMALLY OPEN
ELEV.	ELEVATION	NOM.	NOMINAL
ESP EUH	EXTERNAL STATIC PRESSURE ELECTRIC UNIT HEATER	NFWH ————	NON FREEZE WALL HYDRANT
EX.	EXISTING	OA	OUTSIDE AIR
EXH	EXHAUST	OF	OVERFLOW
EXIST	EXISTING	OFD	OVERFLOW DRAIN

WITH DUCT SIZE 18 INCHES WIDE (IN PLANE OF DRAWING) AND 6 INCHES DEEP.

WITH DUCT SIZE 22 INCHES WIDE (IN PLANE OF DRAWING) AND 14 INCHES DEEP.

SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.

SIZE PERTAINS TO THE ENTIRE RUN OF DUCT UNLESS OTHERWISE NOTED.

(FROM DUCT ORIGIN AT TAP TO END OF DUCT) UNLESS OTHERWISE NOTED.

6 INCHES IN DIAMETER. SIZE PERTAINS TO THE ENTIRE RUN OF DUCT

VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS

VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF

INCLINED RISE IN RESPECT TO AIR FLOW

INCLINED DROP IN RESPECT TO AIR FLOW

INDICATES FLEXIBLE DUCT (RUNOUT) OF SIZE AS

SCHEDULED OR SHOWN. LENGTH SHALL NOT EXCEED 5 FT.

——(RF)

VANED ELBOW (SHORT RADIUS)

DUCT TURNING UP

DUCT TURNING DOWN

VERTICAL FIRE DAMPER

HORIZONTAL FIRE DAMPER

POINT OF NEW CONNECTION

DUCT SMOKE DETECTOR

ITEM TO BE REMOVED

SUPPLY AIR DIFFUSER

RETURN AIR GRILLE

SUPPLY AIR GRILLE

LINEAR SUPPLY AIR DIFFUSER

PRV	PRESSURE REDUCING VALVE	
RA	RETURN AIR	
RD/SP	ROOF DRAIN/STAND PIPE	
BAL.	BALANCE	
RET	RETURN	
RF	RETURN FAN	
RH	REHEAT COIL	
Rh	RELATIVE HUMIDITY	
RPM	REVOLUTIONS PER MINUTE	
RS	ROOF SUMP	
RC	RAIN CONDUCTOR	
REL REB	RELOCATED REBALANCE	
 SA	SUPPLY AIR	
SAN	SANITARY WASTE	
SD	SMOKE DETECTOR	
SF	SUPPLY FAN	
SG	SPECIFIC GRAVITY	
SP	STATIC PRESSURE (INCHES OF WATE	F
SP	STAND PIPE	
SPR	SPRINKLER	
SPR/STP	SPRINKLER STANDPIPE	
•	STATIC PRESSURE SENSOR	
STK	STACK	
TP	TOTAL PRESSURE	
TYP	TYPICAL	
UH	UNIT HEATER	
UON	UNLESS OTHERWISE NOTED	
V	VALVE	

VENT THRU ROOF

WATER GAUGE

WALL HYDRANT

WASTE

VTR

VOLUME CONTROL DAMPER

FLEXIBLE CONNECTION OR

MOTORIZED DAMPER

RF SHEILDING DAMPER

TEMPERATURE SENSOR

THERMOSTAT

FLEXIBLE DUCT CONNECTOR

COMBINATION FIRE AND SMOKE DAMPER

PRESSURE DROP (FEET OF WATER)

POUNDS PER SQUARE INCH

GENERAL HVAC NOTES:

THE FOLLOWING NOTES APPLY TO ALL HVAC DRAWINGS, EXCEPT WHERE OTHERWISE

1. WHEREVER VOLUME DAMPERS OCCUR ABOVE CEILINGS WITHOUT REMOVABLE TILE AND AN ACCESS PANEL IS NOT FURNISHED, PROVIDE AN EXPOSED DAMPER REGULATOR TO ALLOW DAMPER ADJUSTMENT FROM BELOW CEILING.

2. ALL DIMENSION SHOWN FOR DUCTWORK ARE NET INSIDE DIMENSIONS. 3. DIFFUSER AND REGISTER LOCATIONS SHALL BE COORDINATED WITH

UNIT TO BE EQUAL TO VENTLOCK No. 666 IN 1/2"x3/8" SIZE.

4. THOUGH SOME OFFSETS & TRANSITIONS ARE SHOWN IN PIPING AND SHEET METAL TO HELP INDICATE THE PHYSICAL RELATIONSHIP BETWEEN THEM. IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL PIPING AND SHEET METAL OFFSET & TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT

5. DUCT PRESSURE CONSTRUCTION CLASSIFICATION SHALL BE AS SPECIFIED.

6. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE SAME NOMINAL SIZE AS INDICATED ON THE DRAWINGS.

7. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASE OR SUSPENDED CEILING.

ARCHITECTURAL REFLECTED CEILING PLAN.

8. ACCESS PANELS AND DOORS ARE REQUIRED THROUGH BUILDING CONSTRUCTION ASSEMBLIES SUCH AS WALLS, CEILING, PARTITONS AND FLOORS TO SERVICE AND MAINTAIN DAMPERS, CONTROL MOTORS, REGULATORS, VALVES, FLEXIBLE DUCT CONNECTIONS AND OTHER ITEMS OR DEVICES INCORPORATED IN MECHANICAL WORK. SUCH PANELS AND DOORS SHALL BE PROVIDED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS. MECHANICAL CONTRACTOR SHALL COORDINATE LOCATION OF ACESS DOORS AND PANELS AND VERIFY THE EXACT QUANTITY, SIZE, FIRE-RATING AND LOCATION AFTER THE SYSTEMS AND EQUIPMENT REQUIRING ACCESS HAVE BEEN INSTALLED AND PRIOR TO THE CLOSURE OF THE AFFECTED CEILING AND BUILDING ASSEMBLIES. MINIMUM ACCESS PANEL AND DOOR SIZE SHALL BE 24 INCHES BY 18 INCHES UNLESS OTHERWISE NOTED.

9. ALL DUCTWORK PENETRATIONS THROUGH FIRE—RATED WALLS AND FLOORS SHALL BE PROVIDED WITH FIRE DAMPERS AND ACCESS DOOR.

PARTIAL MECHANICAL PLANS

M-100

MECHANICAL SHEET INDEX MECHANICAL SYMBOLS LIST, INDEX, SPECIFICATIONS AND NOTES

PROJECT



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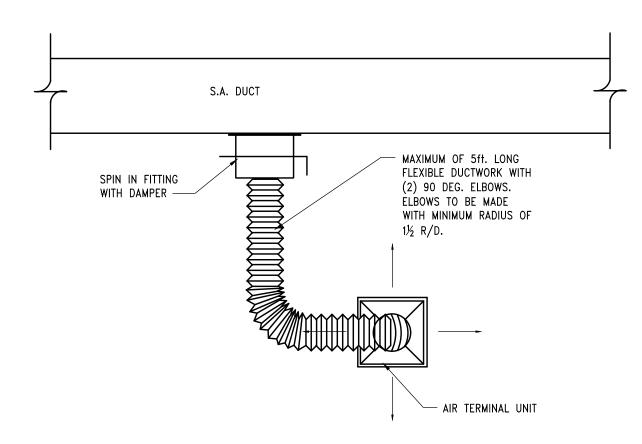
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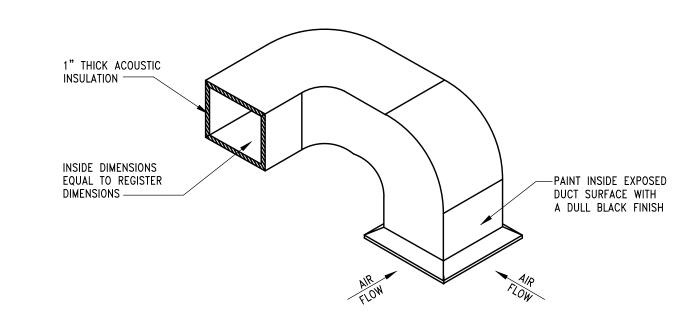
MECHANICAL SYMBOLS LIST **INDEX SPECIFICATIONS** AND NOTES

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FLEXIBLE DUCT CONNECTION DETAIL SCALE: NONE



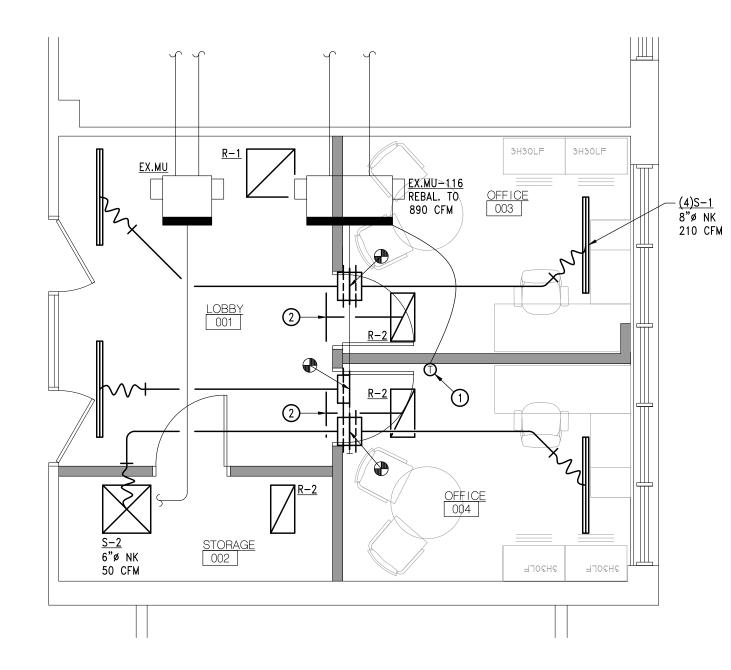
DETAIL OF A TYPICAL SOUND INSULATED RETURN AIR PLENUM FOR OFFICES AND CONFERENCE ROOMS SCALE: NONE

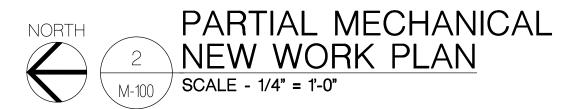
NEW WORK KEY NOTES:

- RECONNECT RELOCATED EXISTING THERMOSTAT TO EXISTING MU EQUIPMENT. LENGTHEN/SHORTEN CONTROLS TO ACCOMMODATE NEW LOCATION.
- 2 PROVIDE SOUND INSULATED BOOT.

NEW WORK GENERAL NOTES:

A. COORDINATE ALL WORK WITH OTHER TRADES.



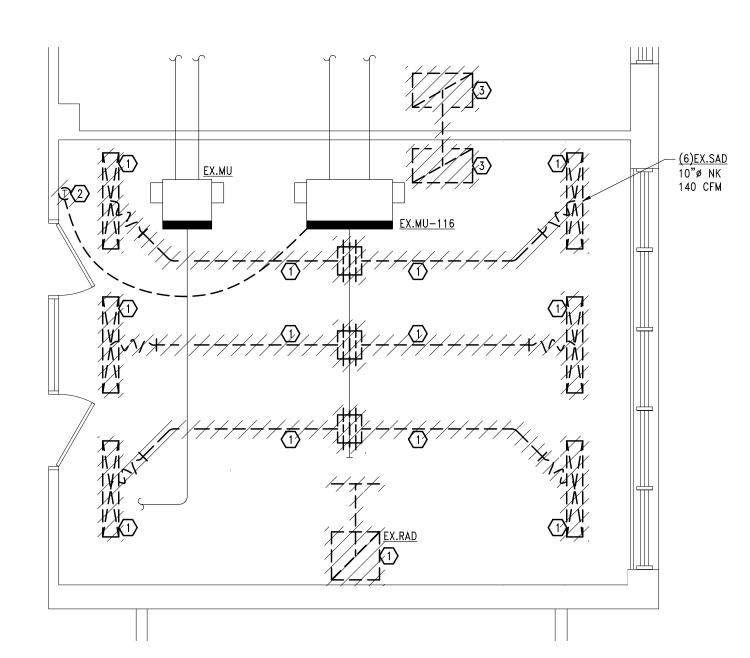


DEMOLITION KEY NOTES:

- REMOVE AND LEGALLY DISCARD EXISTING DIFFUSER/GRILLE AND ALL ASSOCIATED DUCTWORK BACK TO MAIN BRANCH.
- EXISTING THERMOSTAT TO BE RELOCATED. REFER TO NEW WORK PLAN THIS SHEET FOR NEW LOCATION. LENGTHEN/SHORTEN CONTROLS TO ACCOMMODATE NEW LOCATION.
- 3 EXISTING TRANSFER AIR DUCT TO BE REMOVE. DO NOT ABANDON

DEMOLITION GENERAL NOTES:

A. COORDINATE ALL WORK WITH OTHER TRADES.





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PROJECT



CONSULTANT

PARTIAL MECHANICAL PLANS

SHEET TITLE

23-325

PROJECT NUMBER

M-100