



- KEYED NOTES**
- 11 PROVIDE RETURN AIR OPENING WITH WIRE MESH BIRDSCREEN.
 - 12 REFER TO M-502 FOR FIRE DAMPER REQUIREMENTS.

- GENERAL NOTES**
- REFER TO M-001 FOR MECHANICAL ABBREVIATIONS, LEGEND, SYMBOLS, AND GENERAL NOTES.
 - COMPONENTS SHOWN HALF-TONE ON THIS DRAWING ARE ITEMS TO REMAIN; BOLD COMPONENTS ARE NEW.
 - REFER TO STRUCTURAL DRAWINGS FOR DUCT SUPPORT AND EQUIPMENT ANCHORAGE DETAILS.
 - COORDINATE INSTALLATION OF NEW DUCTWORK THROUGH OPTICS LAB AREA WITH EXISTING UTILITIES AND OBSTACLES, REROUTE DUCTWORK AS NECESSARY TO AVOID EXISTING UTILITIES AND OBSTACLES.
 - BOTTOM OF DUCT ELEVATIONS ON THIS DRAWING ARE RELATIVE TO 1ST FLOOR LAB FLOOR.
 - INSTALLATION OF NEW INTERIOR DUCTWORK AND AIR TERMINALS WILL REQUIRE A DETAILED WORK PLAN DEVELOPED WITH INPUT FROM CONSTRUCTION MANAGER, SUBCONTRACTORS, AND FACILITY END-USERS. SUBCONTRACTOR MUST REVIEW EXISTING CONDITIONS AND DISCUSS ACCEPTABLE MEANS AND METHODS FOR NEW INSTALLATION WITH CONSTRUCTION MANAGER PRIOR TO BID. USAGE CONTINUITY OF END-USER LAB EQUIPMENT IN PROJECT AREA WILL REQUIRE COMPLETE INSTALLATION OF NEW COMPONENTS OVER A LONG WEEKEND, INCLUDE COSTS TO ACCOMPLISH THIS IN BID. CONSTRUCTION MANAGER TO COORDINATE TEMPORARY LAB EQUIPMENT REMOVAL
 - INSTALL MANUAL VOLUME DAMPER AT EACH SUPPLY AIR DIFFUSER, IN BRANCH DUCTWORK IMMEDIATELY UPSTREAM OF DIFFUSER CONNECTION, AND ELSEWHERE AS INDICATED.

- KEYED NOTES**
- 1 SECURE NEW RETURN AIR DUCTWORK TO NEW DUCT SUPPORT FRAMES. ROUTE WITH SUPPLY DUCT, RETURN STACKED ON TOP OF SUPPLY. REFER TO S-403.
 - 2 ALL INDOOR SUPPLY DUCT CONNECTED TO 432ACU01-A1 MUST BE DOUBLE-WALL INSULATED DUCT.
 - 3 REFER TO DIFFUSER DETAIL C5 ON M-507, TYPICAL OF ALL NEW DIFFUSERS IN LAB AREAS.
 - 4 INSTALL SUPPLY AND RETURN AIR DUCTS TIGHT TOGETHER THROUGH WALL OPENING AND INSULATE AROUND SET OF DUCTS WITH NO GAP IN BETWEEN DUCTS. SEAL WALL OPENING AROUND NEW DUCTWORK. REFER TO A-501 FOR WALL SEAL REQUIREMENTS.
 - 5 DASHED LINE INDICATES LOCATION OF EXISTING HOIST LIFTING AREA AND PATH OF TRAVEL. ALL NEW MEP COMPONENTS MUST NOT INTERRUPT HOIST LIFTING AREA OR PATH OF TRAVEL.
 - 6 EXISTING LIGHT FIXTURE TO REMAIN AS IS, TYPICAL.
 - 7 FURNISH AND INSTALL NEW DUCT-MOUNTED ELECTRIC RESISTANCE HEATING COIL.
 - 8 EXISTING 60"x48" TRANSFER AIR GRILLE TO REMAIN AS IS.
 - 9 EXISTING, RE-USED, SD FURNISHED INSTALLED AND WIRED BY CONTROLS SUBCONTRACTOR. REFER TO MD401. WIRE DEVICE TO EXISTING ADDRESSABLE FIRE ALARM CONTROL LOOP AND WIRE FIRE ALARM CONTROL LOOP TO 432ACU01-A1 SUPPLY FAN MOTORS.
 - 10 INDOOR RETURN AIR DUCT IN OPTICS LAB TO BE UNINSULATED.

KEY PLAN

Sheet Title
**MECHANICAL ENLARGED
2ND FLOOR OPTICS LAB NEW
CONSTRUCTION PLAN -
DUCTWORK**

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Sht. No.
M-404