

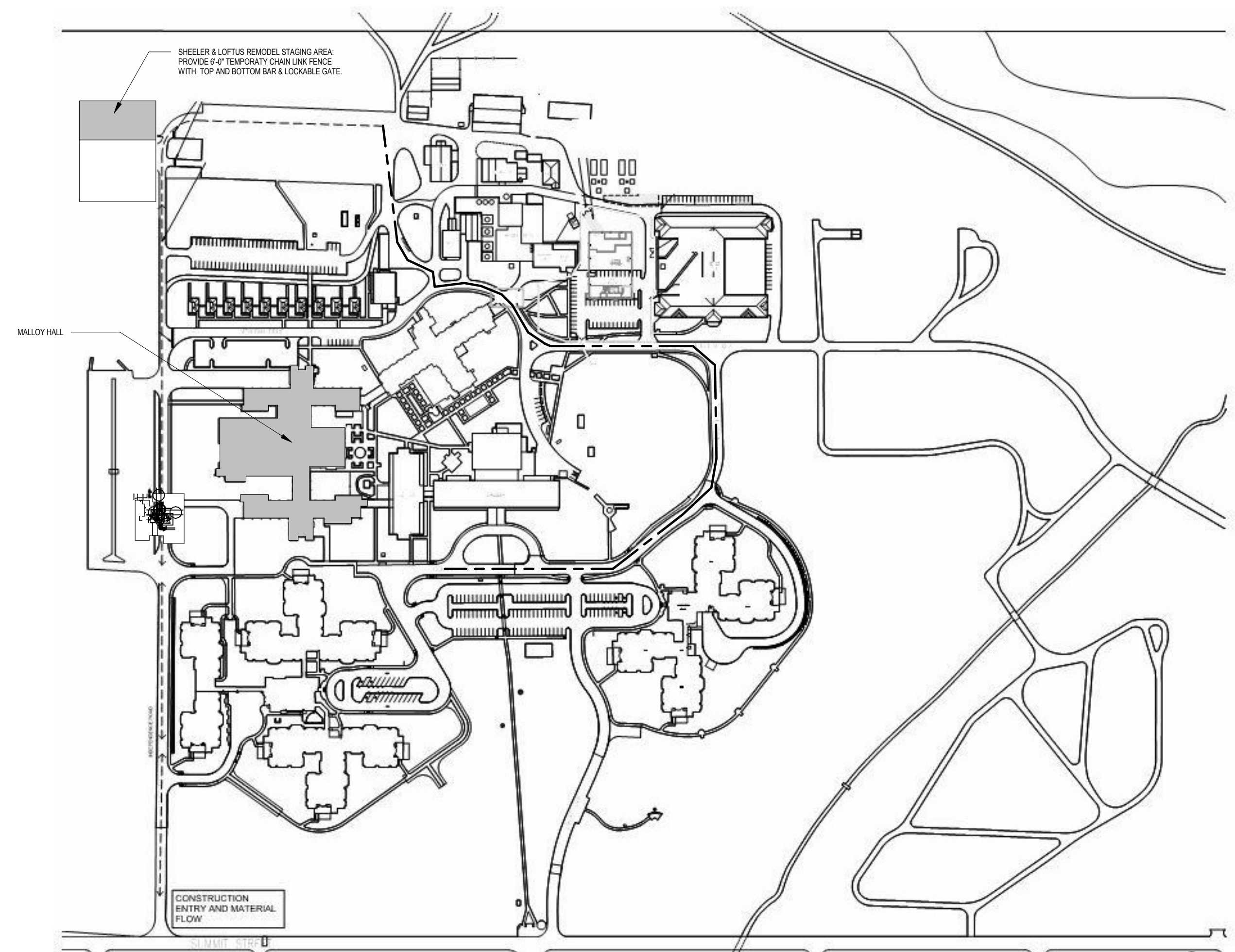
MALLOY WALL - LOWER LEVEL FLOOR KEY PLAN

SCALE: 1/16" = 1'-0"



D5 LOGISTICS SITE PLAN

SCALE: 1" = 200'-0"



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Architecture  
Engineering  
Planning



PROJECT TITLE

IVH

MALLOY LAUNDRY  
CHUTE

IDAS Project # 8890.00

Marshalltown, Iowa

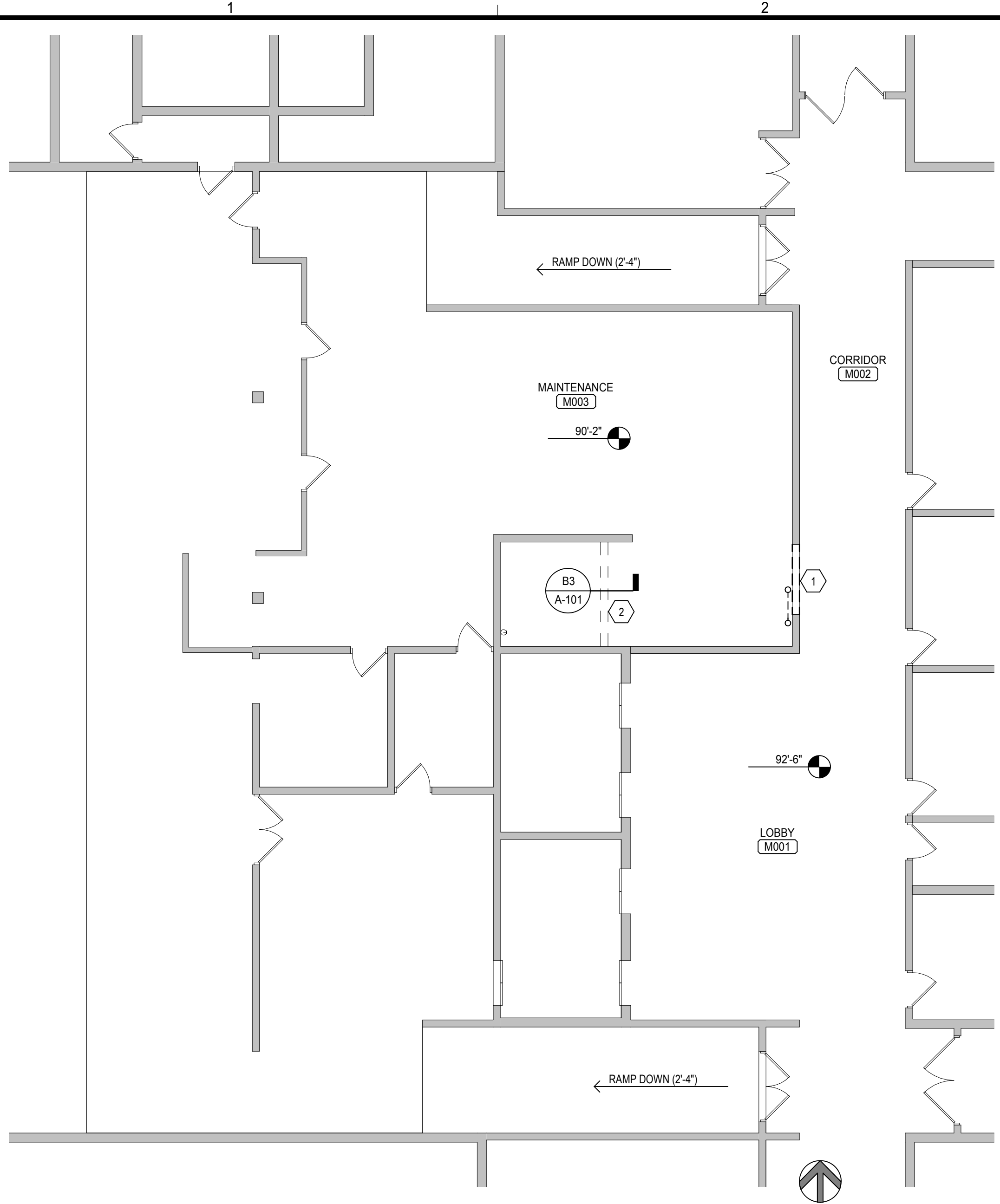
ISSUES

| MARK       | DATE        | DESCRIPTION    |
|------------|-------------|----------------|
| ISSUE DATE | 02/22/2019  | DRAWN BY JWS   |
| PROJECT #  | 06180243.00 | CHECKED BY DDS |

SHEET TITLE  
**LOGISTICS MAP,  
BASEMENT KEY PLAN**

SHEET NUMBER

**G-101**



**SHEET GENERAL NOTES: DEMOLITION PLAN**

- A. DEMOLITION PORTIONS OF THE PLANS ARE PROVIDED FOR THE CONVENIENCE OF THE BIDDING PROCESS AND ARE NOT MEANT TO BE ALL-INCLUSIVE OF THE FULL SCOPE OF THE DEMOLITION EFFORT. OTHER ELEMENTS WITHIN THE DOCUMENTS THAT REQUIRE THE REMOVAL OF EXISTING CONSTRUCTION IN ORDER TO INSTALL THE NEW SCHEDULED MATERIAL SHALL BE CONSIDERED A PART OF THE SCOPE OF THE WORK UNDER THIS CONTRACT.
- B. OWNER SHALL PROVIDE A LIST OF ITEMS FOR SALVAGE. CONTRACTOR SHALL RETURN SAME TO OWNER'S STOCK. SEE ALSO SPECIFICATION SECTION 024119 SELECTIVE STRUCTURE DEMOLITION FOR REMODELING.
- C. UNLESS NOTED OTHERWISE, EXISTING WALLS ARE MASONRY.
- D. G.C. SHALL COORDINATE DEMOLITION OPERATIONS WITH OTHER TRADES.
- E. AT THE TIME THEY PRESENT THEIR PROPOSAL TO THE PRIME BIDDER (GENERAL CONTRACTOR), EACH SUB-BIDDER (TRADE) SHALL PROVIDE A LIST OF EXISTING CONSTRUCTION ASSEMBLIES, INCLUDING SIZES AND LOCATIONS, THAT MUST BE CUT AND PATCHED TO FACILITATE THEIR WORK. THE GENERAL CONTRACTOR SHALL PROVIDE CUTTING AND PATCHING AS PER THE LISTS AND AS OTHERWISE DIRECTED ON THE DRAWINGS AND SPECIFICATIONS. OTHERWISE THE SUB-BIDDER ACCEPTS RESPONSIBILITY OF PATCHING.
- F. DEMOLITION OF PLUMBING FIXTURES AND MECHANICAL EQUIPMENT AND ASSOCIATED PIPING SHALL BE BY M.C. PROVIDE PATCH TO MATCH AS REQUIRED DUE TO MECHANICAL DEMOLITION OPERATIONS. PATCHING SHALL INCLUDE FINISH TO MATCH EXISTING WHERE NEW FINISH IS NOT OTHERWISE SCHEDULED. REFERENCE MECHANICAL DEMOLITION SHEETS.
- G. DEMOLITION OF ELECTRICAL FIXTURES AND EQUIPMENT AND ASSOCIATED CIRCUITING SHALL BE BY E.C. PROVIDE PATCH TO MATCH AS REQUIRED DUE TO ELECTRICAL DEMOLITION OPERATIONS. PATCHING SHALL INCLUDE FINISH TO MATCH EXISTING WHERE NEW FINISH IS NOT OTHERWISE SCHEDULED. REFERENCE ELECTRICAL DEMOLITION SHEETS.
- H. UNLESS OTHERWISE NOTED OR DETAILED, REMOVE EXISTING CEILING MATERIAL WHERE NEW CEILINGS ARE SCHEDULED. THIS INCLUDES, BUT IS NOT LIMITED TO, EXPOSED SUSPENDED ACoustICAL TILE CEILINGS, BULKHEADS, SOFFITS, AND SUSPENDED PLASTER CEILINGS LOCATED ABOVE THE EXISTING S.A.T. CEILING.
- I. FOLLOWING SELECTIVE DEMOLITION, PREPARE ADJACENT SURFACES THAT REMAIN FOR INTEGRATION INTO THE NEW WORK AND PATCH BACK ADJACENT SURFACES WHERE IT APPLIES.
- J. AREAS WITH NO SCHEDULED WORK ARE SHADED GRAY.

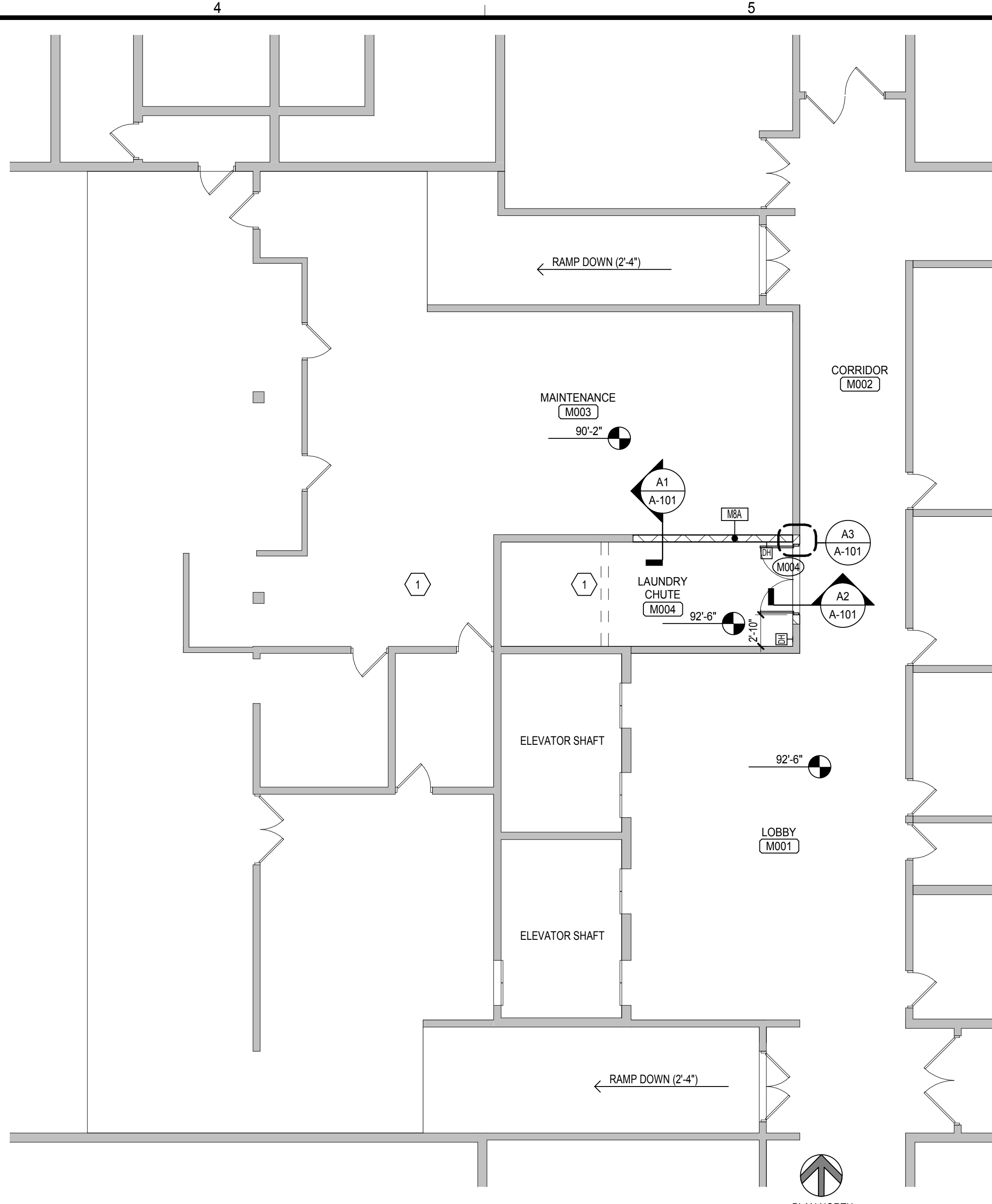
**KEY NOTES: DEMOLITION PLAN**

- 1. CUT OPENING IN EXISTING CMU WALL FOR NEW DOOR, OVERCUT JAMBS AND HEAD 6" MIN. CUT OUT EXISTING CONCRETE SLAB AT NEW THRESHOLD AND PREP FOR NEW SLAB.
- 2. REMOVE EXISTING STEEL BEAM SALVAGE FOR REINSTALLATION. DEMO BOTTOM 2 COURSES OF CMU. REINSTALL STEEL BEAM AT BOTTOM OF REMAINING CMU WALL AND INSTALL SHRINK RESISTANT GROUT.

NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN

| DOOR SCHEDULE |       |        |      |          |       |          |        |      |         |
|---------------|-------|--------|------|----------|-------|----------|--------|------|---------|
| MARK          | SIZE  |        | DOOR |          | FRAME |          | RATING | HWDR | REMARKS |
|               | WIDTH | HEIGHT | TYPE | MATERIAL | TYPE  | MATERIAL |        |      |         |
| M004          | 6'-0" | 7'-0"  | F    | WD       | F1    | HM       | 90     | 1    |         |

| ROOM FINISH SCHEDULE |               |          |        |         |        |        |        |         |      |
|----------------------|---------------|----------|--------|---------|--------|--------|--------|---------|------|
| ROOM #               | ROOM NAME     | FLOOR    | BASE   | CEILING | WALLS  |        |        | REMARKS |      |
|                      |               |          |        |         | NORTH  | EAST   | SOUTH  |         | WEST |
| M001                 | LOBBY         | EXIST.   | EXIST. | EXIST.  | EXIST. | EXIST. | EXIST. | EXIST.  |      |
| M002                 | CORRIDOR      | EXIST.   | VB     | EXIST.  | -      | EXIST. | -      | PT      |      |
| M003                 | MAINTENANCE   | EXIST.   | EXIST. | EXIST.  | EXIST. | PT     | EXIST. | EXIST.  |      |
| M004                 | LAUNDRY CHUTE | CONC HAS | VB     | GB-PT   | PT     | PT     | PT     | PT      |      |



**SHEET GENERAL NOTES: FLOOR PLAN**

- A. THE SET OF DOCUMENTS FOR THIS PROJECT INCLUDES DRAWINGS AS REPRESENTED HEREIN AND A PROJECT MANUAL EACH WITH EQUAL WEIGHT OF IMPORTANCE.
- B. PROVIDE BLOCKING AS REQUIRED FOR MOUNTING ALL ACCESSORIES, CASEWORK, HARDWARE, ETC.
- C. THE G.C. SHALL PROVIDE ALL CHASES, SLOTS, OPENINGS, ETC. AS REQUIRED FOR THE WORK OF ALL TRADES, AND SHALL PROVIDE PATCHING TO MATCH EXISTING ADJACENT CONSTRUCTION INCLUDING FINISHES. COORDINATE WITH ALL OTHER TRADES. NOTE THAT THIS SHALL INCLUDE EXISTING CONSTRUCTION WHERE ACCESS IS REQUIRED TO ACCOMPLISH THE WORK. NOTE THAT EACH TRADE SHALL PROVIDE THEIR OWN CORE DRILLING AS REQUIRED TO ACCOMPLISH THEIR WORK. CONTACT THE ARCHITECT FOR APPROVAL OF THE LOCATION OF HOLES CORED THROUGH STRUCTURAL ELEMENTS. DUCTS, PIPING, CABLEING, ETC. SHALL BE APPROPRIATELY SEALED WITH REGARD TO FIRE/SMOKE RATED ASSEMBLIES AND/OR ACOUSTICS BY THE TRADE PROVIDING THEM. REFERENCE SPECIFICATION SECTION 07239 CUTTING AND PATCHING.
- D. DIMENSIONS ARE TO FACE OF MASONRY. EDGE OF MASONRY OPENING, CENTERLINE OF METAL STUD WALL, CENTERLINE OF STUD WALL OPENING, OR FACE OF OTHER FINISHED SURFACES.
- E. ALL DIMENSIONS SHOULD BE VERIFIED WITHIN THE CONFINES OF EXTERIOR WALLS TO ENSURE ALIGNMENT AS INDICATED WITHIN THE PLAN. NOTIFY ARCHITECT IF ANY DISCREPANCIES OCCUR FROM THE ANTICIPATED WALL LAYOUT.
- F. PROVIDE APPROPRIATE METAL DRYWALL ACCESSORIES SUCH AS METAL CORNER BEAD AND "J" MOLD AT ALL GYPSUM BOARD EDGES & CORNERS AND WHERE GYPSUM BOARD ADJUTS DISMALAR MATERIALS. PROVIDE SEALANT AS APPROPRIATE. SEE SPEC. SECTION 09 20 00 GYPSUM BOARD SYSTEMS.
- G. DRYWALL CONTROL JOINTS SHALL BE INSTALLED AT BOTH SIDES OF ALL GYPSUM BOARD OPENINGS ON EACH SIDE OF THE WALL. DRYWALL CONTROL JOINTS SHALL BE INSTALLED AT 30'-0" O.C. MAXIMUM UNLESS OTHERWISE NOTED OR DETAILED.
- H. THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES TO ACCOMMODATE INSTALLATION OF EQUIPMENT AND DEVICES.
- I. ALL ROUGH OPENINGS FOR RECESSED EQUIPMENT SHALL BE LINED TO MAINTAIN FIRE RATING IN ALL RATED WALLS.
- J. ON GYPSUM BOARD WALLS, DRYWALL FINISHING MAY TERMINATE 4" ABOVE SCHEDULED CEILING HEIGHTS, HOWEVER, TAPING OF JOINTS IS REQUIRED FULL HEIGHT.
- K. PATCH PLASTER WALLS AT ALL LOCATIONS ASSOCIATED WITH DEMOLITION ACTIVITIES. REFERENCE DEMOLITION PLANS ON AD101.
- L. TOUCHUP PAINT ON ALL SURFACE NOT OTHERWISE SCHEDULED TO BE PAINTED, IF CONSTRUCTION ACTIVITIES DAMAGE THE EXISTING FINISH, INCLUDING WALLS, DOORS, AND FRAMES.

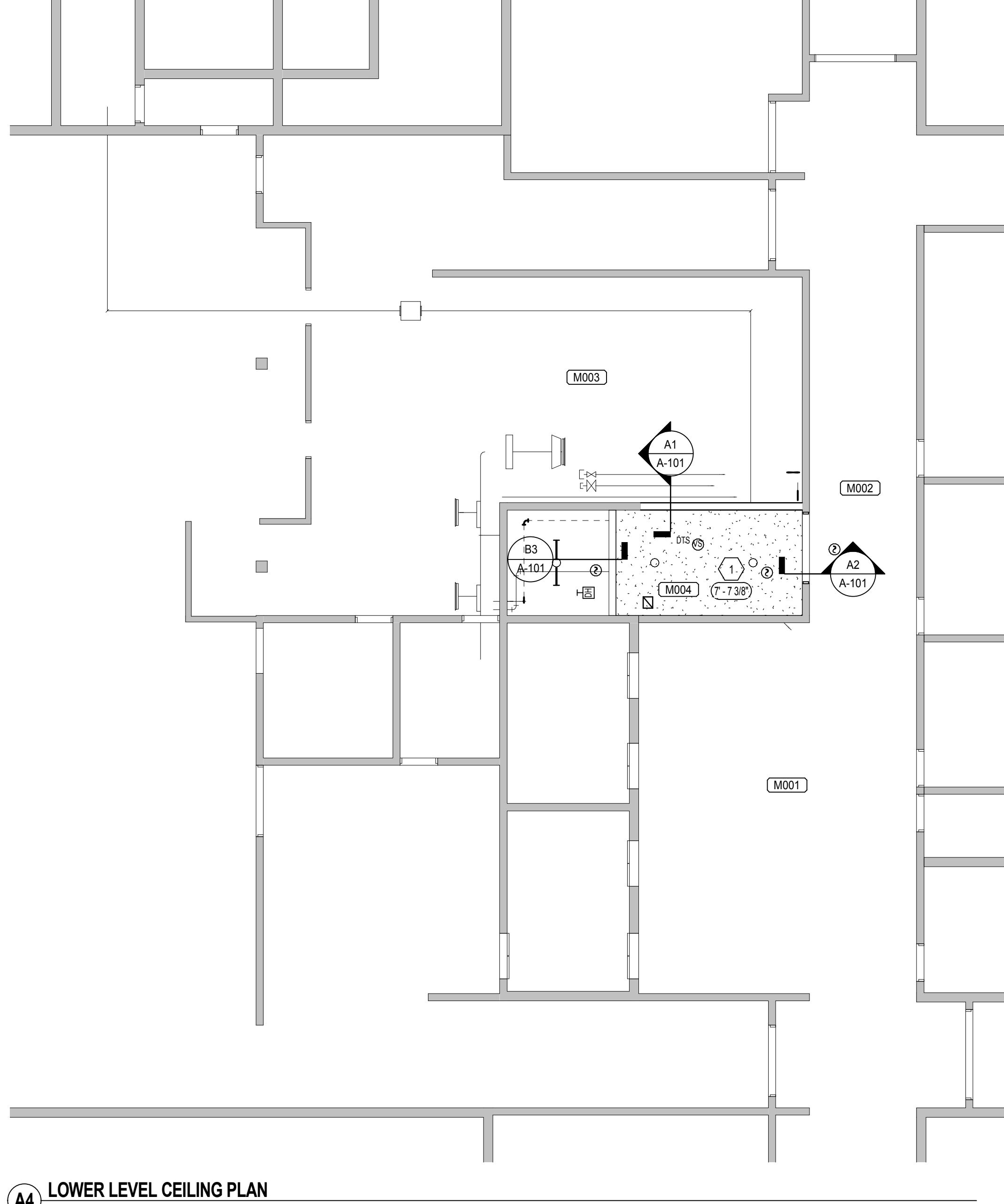
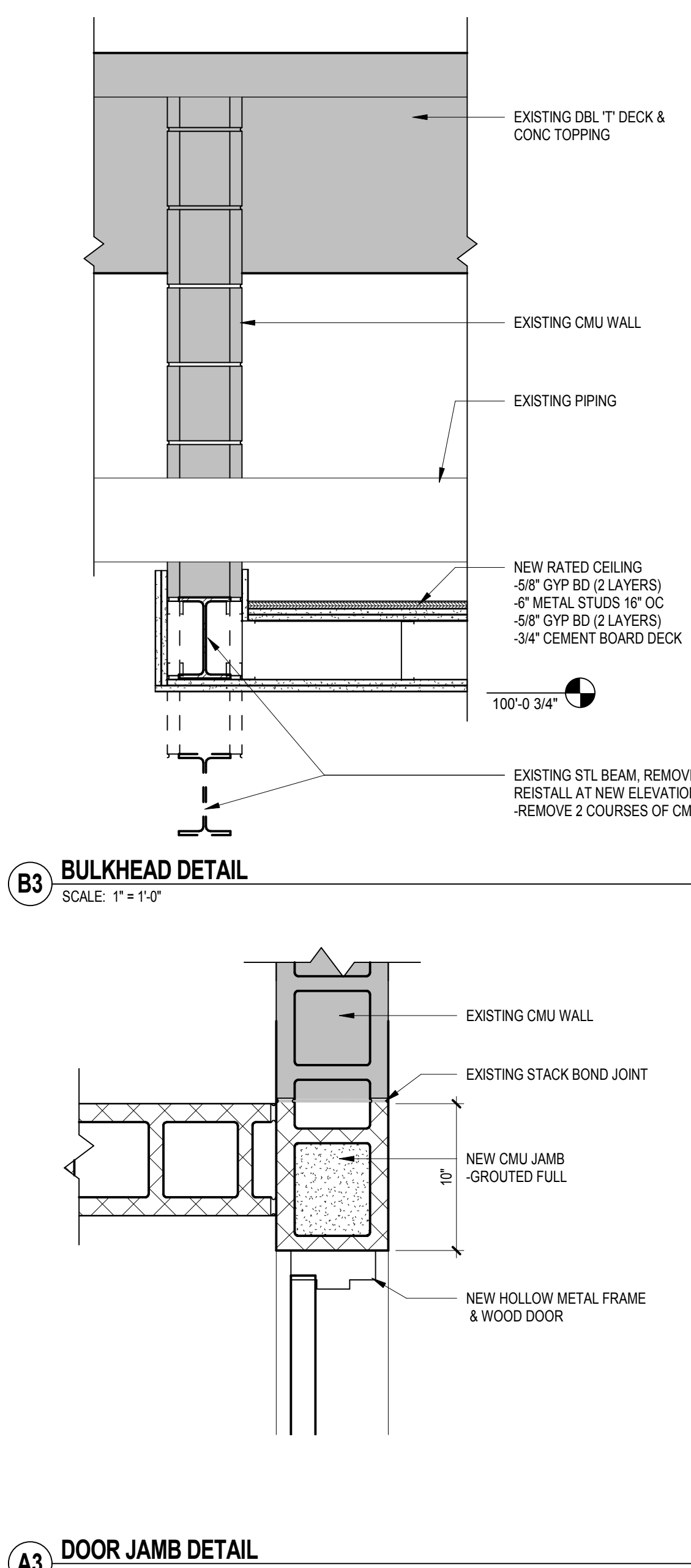
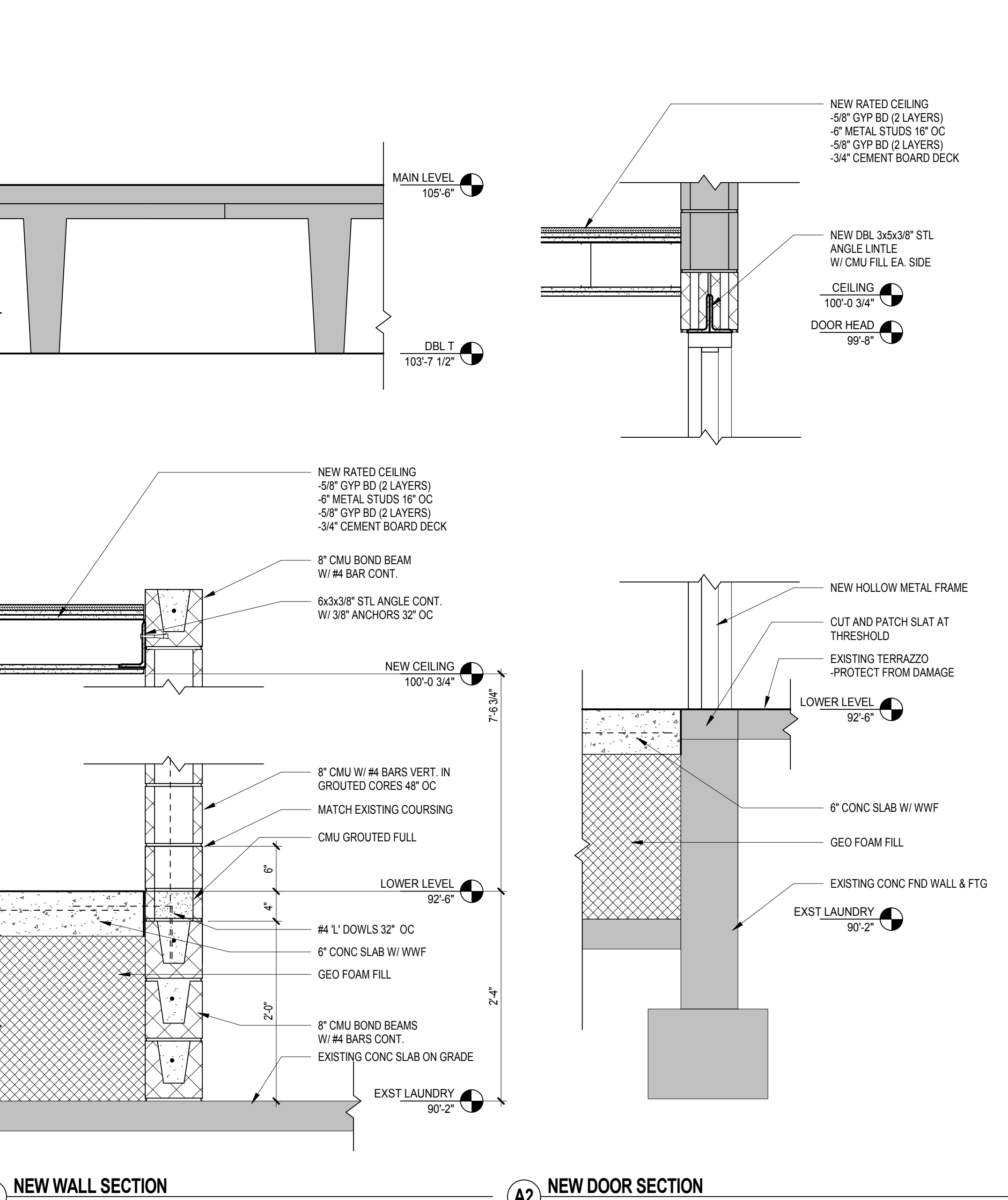
**KEY NOTES: FLOOR PLAN**

- 1. NEW 6" CONCRETE SLAB WITH 6# WWF ON GEOFOAM FILL. PROVIDE #4 BAR 1' DOWELS AT NEW WALL AND DRILL IN #4 EPOXY DOWELS INTO EXISTING CONCRETE WALLS. @ 32" OC

NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN

D1 LOWER LEVEL DEMOLITION PLAN

D4 LOWER LEVEL FLOOR PLAN



**SHEET GENERAL NOTES: CEILING PLAN**

- A. SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. SEE SPECIFICATION SECTIONS 09 51 13 - SUSPENDED ACOUSTICAL TILE CEILING SYSTEM. SEE ROOM FINISH SCHEDULE (IN101) FOR IDENTIFICATION OF SUSPENDED ACOUSTICAL CEILING TILE TYPES.
- B. UNLESS NOTED OR DETAILED OTHERWISE, SUSPENDED DRYWALL SYSTEM SHALL INCORPORATE CEILING SUSPENSION SYSTEM (DRYWALL) AND 5/8" GYPSUM BOARD FINISHED AND PAINTED AS SPECIFIED, INCLUDING ALL APPROPRIATE ACCESSORIES, CONTROL JOINTS, CORNER BEADS, & MOLDINGS.
- C. SEE ALSO MECHANICAL & ELECTRICAL DRAWINGS FOR OTHER CEILING PENETRATIONS. FINAL LOCATIONS OF ALL CEILING PENETRATIONS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR IN THE FIELD.
- D. REMOVE AND REINSTALL/ PATCH EXISTING CEILINGS AS REQUIRED TO FACILITATE THE WORK IN AREAS OF REMODEL WHERE NEW CEILINGS ARE NOT OTHERWISE SCHEDULED. COORDINATE WITH OTHER TRADES.
- E. DUE TO THE SPRINKLER SYSTEM, ALL CEILING ASSEMBLIES ARE NON RATED UNLESS OTHERWISE NOTED.
- F. CEILING HEIGHTS SHOWN (X'X") ARE CEILING HEIGHTS ABOVE FINISHED FLOOR (A.F.F.) UNLESS OTHERWISE NOTED. NEW CEILINGS SHALL BE INSTALLED AT THE SAME ELEVATION AS PREVIOUS CEILINGS BEING REMOVED.
- G. ALL SUSPENDED CEILING SYSTEMS SHALL BE ATTACHED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS TO STRUCTURAL FRAMING AND IN ABSENCE OF SAME TO SUB-FRAMING PROVIDED BY THE CONTRACTOR AND ATTACHED TO THE STRUCTURAL FRAME.
- H. PROVIDE AND INSTALL OUTSIDE SQUARE OR RADIUS BULLNOSE CORNER TRIM AT ALL OUTSIDE CORNERS OF SAT CEILINGS.
- I. COORDINATE AND SCHEDULE ABOVE CEILING WORK BY OWNER OR BY OTHERS WITH CEILING INSTALLATION.
- J. AT PROJECT COMPLETION PUNCH LIST THE CONTRACTOR SHALL SURVEY ALL CEILINGS AND CLEAN ALL SOLED TILE. REPLACE ALL DAMAGED, CRACKED, OR CHIPPED CEILING TILE, AND TOUCH UP ALL SOLED TILE NOT OTHERWISE REQUIRING REPLACEMENT.
- K. PROVIDE EXTRA CEILING MATERIALS AT PROJECT CLOSEOUT AS SPECIFIED AND STORE AS DIRECTED BY THE OWNER.
- L. LOCATIONS OF OCCUPANCY SENSORS ARE NOT SHOWN. CONTRACTOR SHALL COORDINATE THEIR LOCATIONS IN COMPLIANCE WITH ELECTRICAL SPECIFICATIONS AND DRAWINGS.
- M. ALL AREAS SHADDED GRAY HAVE NO SCOPE OF WORK.

**KEY NOTES: CEILING PLAN**

- 1. NEW 2 HOUR FIRE BARRIER CEILING. 6" STL STUDS & 6#3/8" STL ANGLES CONTINUOUS ON NORTH AND SOUTH WALLS W/ 3/8" ANCHORS 32" OC. 2 LAYERS- 5/8" TYPE X GYPSUM BOARD EACH SIDE, AND 3/4" CEMENT BOARD DECKING FOR MAINTENANCE ACCESSABILITY.

NOTE: NOT ALL KEYNOTES MAY BE USED ON EACH PLAN

A1 NEW WALL SECTION

A2 NEW DOOR SECTION

A3 DOOR JAMB DETAIL

A4 LOWER LEVEL CEILING PLAN

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Architecture  
 Engineering  
 Planning

**DCI GROUP**  
 DESIGN • CONSTRUCTION • INTEGRATION

PROJECT TITLE  
**IVH**  
**MALLOY LAUNDRY CHUTE**  
 IDAS Project # 8890.00  
 Marshalltown, Iowa  
 ISSUES

| MARK       | DATE        | DESCRIPTION    |
|------------|-------------|----------------|
| ISSUE DATE | 02/22/2019  | DRAWN BY JWS   |
| PROJECT #  | 06180243.00 | CHECKED BY DDS |

SHEET TITLE  
**LOWER / TUNNEL LEVEL PLANS**  
 SHEET NUMBER  
**A-101**



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PROJECT TITLE

IVH

MALLOY LAUNDRY  
CHUTE

IDAS Project # 8890.00

Marshalltown, Iowa

ISSUES

MARK DATE DESCRIPTION

| MARK        | DATE        | DESCRIPTION    |
|-------------|-------------|----------------|
| ISSUE DATE  | 02/22/2019  | DRAWN BY JLP   |
| PROJECT #   | 06180243.00 | CHECKED BY SMT |
| SHEET TITLE |             |                |

MECHANICAL TITLE  
SHEET

SHEET NUMBER

M-001

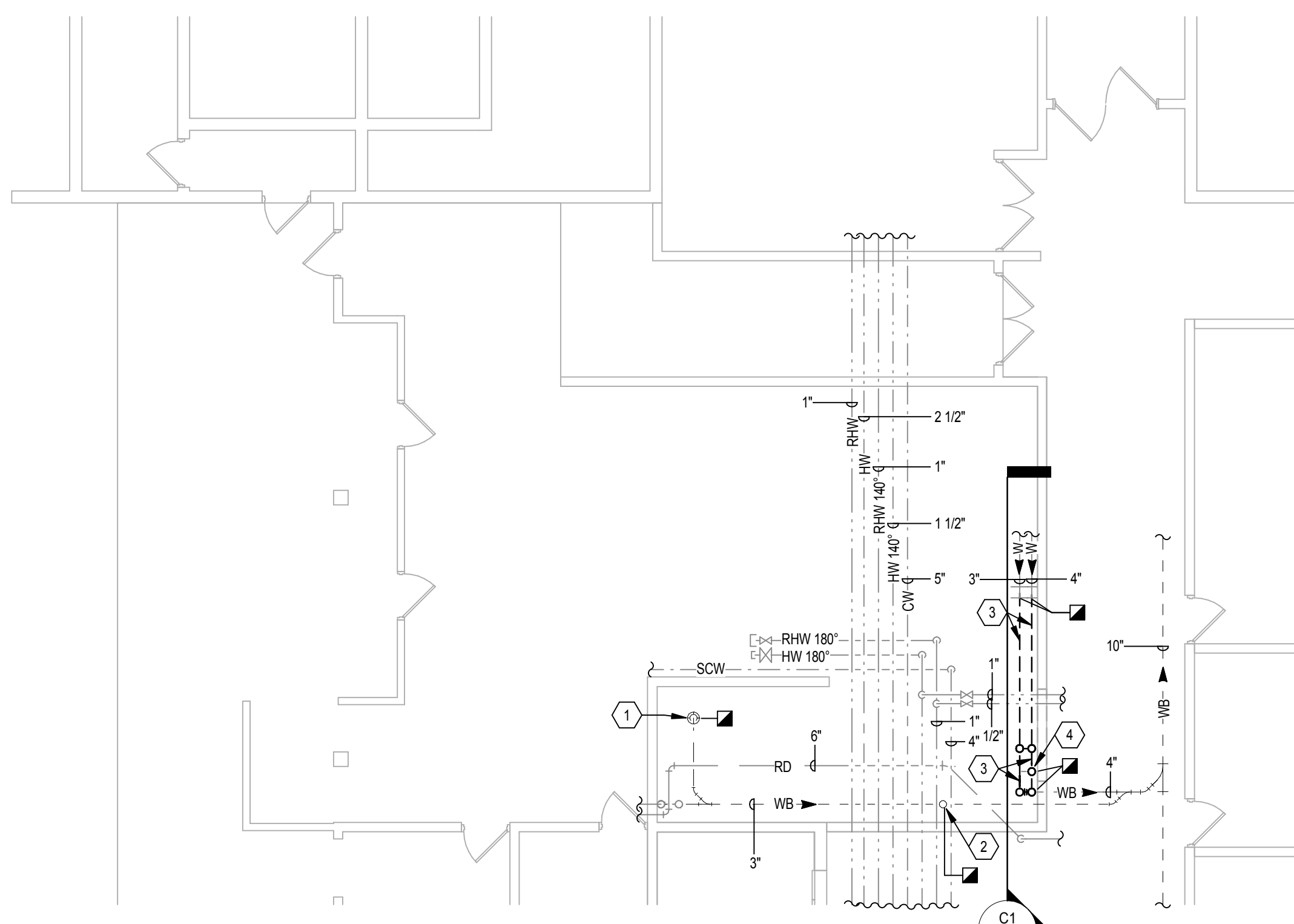
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BID DOCUMENTS

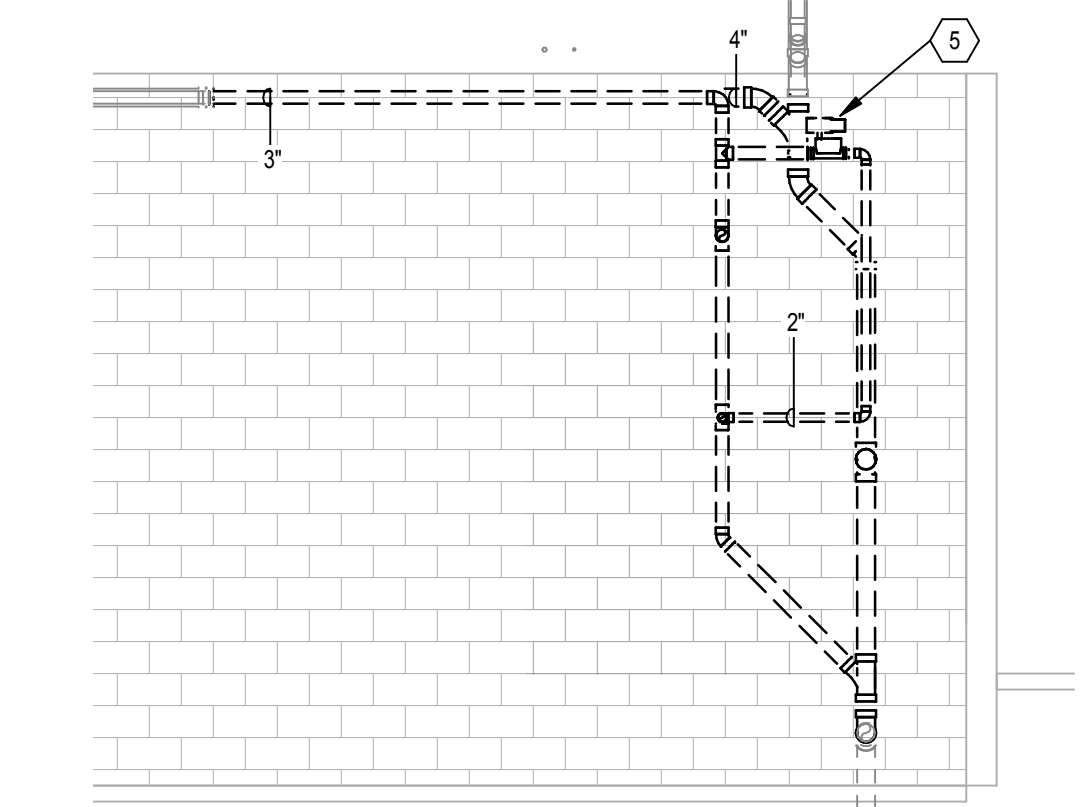
LISTED DRAWINGS SCALES UNLESS REDUCED FROM ORIGINAL 31" x 42" FORMAT

| GENERAL MECHANICAL SYMBOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PLUMBING AND PIPING SYMBOLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| <p>POINT WHERE NEW CONNECTS TO EXISTING</p> <p>NUMBER OF DETAIL ON SHEET</p> <p>NUMBER OF SHEET WHERE DETAIL APPEARS</p> <p>KEYNOTE</p> <p>CONTINUATION SYMBOL</p> <p>ROOM NAME AND NUMBER</p> <p><b>HVAC SYMBOLS</b></p> <p>SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)</p> <p>OVAL DUCT SIZE TAG (WIDTH x HEIGHT)</p> <p>ROUND DUCT SIZE TAG (DIAMETER)</p> <p>RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE</p> <p>ROUND SUPPLY/OUTSIDE AIR DUCT RISE</p> <p>RECTANGULAR RETURN/TRANSFER AIR DUCT RISE</p> <p>ROUND RETURN/TRANSFER AIR DUCT RISE</p> <p>RECTANGULAR EXHAUST/RELIEF AIR DUCT RISE</p> <p>ROUND EXHAUST/RELIEF AIR DUCT RISE</p> <p>RETURN / EXHAUST INLET</p> <p>SUPPLY OUTLET</p> <p>LINEAR DIFFUSER</p> <p>GRILLES, REGISTERS, AND DIFFUSERS TAG</p> <p>TYPE (SEE SCHEDULE)</p> <p>CFM</p> <p>MECHANICAL EQUIPMENT</p> <p>MECHANICAL EQUIPMENT TAG</p> <p>EXISTING MECHANICAL EQUIPMENT</p> <p>EXISTING MECHANICAL EQUIPMENT TAG (TYPICAL FOR ALL EXISTING TAGS)</p> <p>MECHANICAL EQUIPMENT FOR REFERENCE</p> <p>MECHANICAL EQUIPMENT TAG (REFER TO OTHER DISCIPLINE FOR ADDITIONAL INFORMATION)</p> <p>CARBON DIOXIDE SENSOR</p> <p>TEMPERATURE &amp; HUMIDITY SENSOR</p> <p>CARBON MONOXIDE SENSOR</p> <p>TEMPERATURE SENSOR</p> <p>NITROGEN DIOXIDE SENSOR</p> <p>THERMOSTAT</p> <p>HUMIDITY SENSOR</p> <p>MANUAL SWITCH</p> <p>HUMIDISTAT</p> <p>SENSOR</p> <p>FIRE DAMPER</p> <p>MANUAL BALANCING DAMPER</p> <p>SMOKE DAMPER</p> <p>BACKDRAFT DAMPER</p> <p>MOTORIZED DAMPER</p> <p>COMBINATION FIRE/SMOKE DAMPER</p> <p><b>LAB AND MEDICAL SYMBOLS</b></p> <p>LAB AIR</p> <p>LAB DEIONIZED WATER</p> <p>LAB DISTILLED WATER</p> <p>LAB GAS</p> <p>LAB VACUUM</p> <p>MEDICAL AIR</p> <p>MEDICAL CO2</p> <p>MEDICAL GAS</p> <p>MEDICAL HYDROGEN</p> <p>MEDICAL NITROGEN</p> <p>MEDICAL NITROUS OXIDE</p> <p>MEDICAL OXYGEN</p> <p>MEDICAL VACUUM</p> <p>FIRE PROTECTION SYMBOLS</p> <p>FIRE PROTECTION DRY</p> <p>FIRE PROTECTION OTHER</p> <p>FIRE PROTECTION PREACTION</p> <p>FIRE PROTECTION WET</p> <p>COMBINATION FIRE &amp; DOMESTIC</p> <p>UPRIGHT SPRINKLER HEAD</p> <p>PENDENT SPRINKLER HEAD</p> <p>RECESSED SPRINKLER HEAD</p> <p>CONCEALED SPRINKLER HEAD</p> <p>REPRESENTS DRY SPRINKLER HEAD</p> <p>SIDEWALL SPRINKLER HEAD</p> <p>EXTENDED COVERAGE SIDEWALL SPRINKLER HEAD</p> <p>OBSTRUCTION FROM DUCTWORK 48" AND GREATER</p> | <p>PIPE SIZE TAG (DIAMETER)</p> <p>ABOVE GROUND PIPING</p> <p>PIPE SLOPE TAG</p> <p>BELOW GROUND PIPING</p> <p>PIPE INVERT ELEVATION TAG</p> <p>EXISTING PIPE TAG</p> <p>PIPING BEING DEMOLISHED</p> <p>ACID VENT</p> <p>ACID WASTE</p> <p>ACID WASTE BELOW</p> <p>CHILLED WATER RETURN</p> <p>CHILLED WATER SUPPLY</p> <p>COMBINATION WASTE &amp; VENT</p> <p>COMPRESSED AIR</p> <p>CONDENSATE DRAINAGE</p> <p>CONDENSATE RETURN</p> <p>CONDENSER WATER RETURN</p> <p>CONDENSER WATER SUPPLY</p> <p>DISTILLED WATER</p> <p>DOMESTIC COLD WATER</p> <p>DOMESTIC COLD WATER-FILTERED</p> <p>DOMESTIC COLD WATER-HARD</p> <p>DOMESTIC COLD WATER-SOFT</p> <p>DOMESTIC HOT WATER</p> <p>DOMESTIC HOT WATER 140°</p> <p>DOMESTIC HOT WATER RECIRCULATING</p> <p>DUAL TEMP WATER RETURN</p> <p>DUAL TEMP WATER SUPPLY</p> <p>GEOHERMAL RETURN</p> <p>GEOHERMAL SUPPLY</p> <p>GLYCOL HOT WATER RETURN</p> <p>GLYCOL HOT WATER SUPPLY</p> <p>GREASE VENT</p> <p>GREASE WASTE</p> <p>HEATING WATER RETURN</p> <p>HEATING WATER SUPPLY</p> <p>MITIGATION VENT</p> <p>NATURAL GAS</p> <p>NATURAL GAS 2LB</p> <p>OIL VENT</p> <p>OIL WASTE</p> <p>PROPANE GAS</p> <p>PUMP DISCHARGE</p> <p>REFRIGERANT</p> <p>REFRIGERANT LIQUID</p> <p>REFRIGERANT SUCTION</p> <p>REFRIGERANT HOT GAS</p> <p>STEAM - HP</p> <p>STEAM - HP CONDENSATE</p> <p>STEAM - MP</p> <p>STEAM - MP CONDENSATE</p> <p>STEAM - LP</p> <p>STEAM - LP CONDENSATE</p> <p>SANITARY VENT</p> <p>SANITARY WASTE</p> <p>SANITARY WASTE-BELOW</p> <p>STORM DRAINAGE</p> <p>STORM DRAINAGE OVERFLOW BELOW</p> <p>STORM DRAINAGE OVERFLOW</p> <p>STORM DRAINAGE OVERFLOW BELOW</p> <p>PLUG</p> <p>REDUCING 45 DEGREE TEE</p> <p>45 DEGREE TEE</p> <p>1. SIDE CONNECTION</p> <p>2. ELBOW DOWN</p> <p>3. ELBOW UP</p> <p>4. SHUT OFF VALVE</p> <p>5. BALANCING VALVE</p> <p>6. CONTROL VALVE</p> <p>7. PRESSURE REDUCING VALVE</p> <p>8. PRESSURE RELIEF VALVE</p> <p>9. CHECK VALVE</p> <p>10. AIR VENT</p> <p>11. PRESSURE GAUGE</p> <p>12. THERMOMETER</p> <p>13. PIPE ANCHOR</p> <p>14. PIPE GUIDE</p> <p>15. CONCENTRIC REDUCER</p> <p>16. ECCENTRIC REDUCER</p> <p>17. STRAINER</p> <p>18. UNION</p> <p>19. DIRECTION OF FLOW</p> <p>20. PITCH PIPE DOWN</p> <p>21. 3-WAY CONTROL VALVE PREVENTER</p> <p>22. PUMP</p> <p>23. FLOW SWITCH</p> <p>24. PRESSURE TEMPERATURE TAP</p> <p>25. MANUAL CALIBRATED BALANCING VALVE</p> <p>26. AUTOMATIC FLOW CONTROL VALVE</p> <p>27. MEDICAL GAS OUTLET</p> <p>28. HOSE BIB OR WALL HYDRANT</p> <p>29. INSERTION FLOW METER</p> <p>30. FLOW METER</p> <p>31. REVOLVED PRESSURE BACKFLOW</p> <p>32. AQUASTAT</p> <p>33. 3-WAY VALVE</p> <p>FLOOR</p> <p>WALL</p> <p>W.C. CLEAN OUT</p> <p>FLOOR DRAIN</p> <p>FLOOR WATER METER</p> <p>GAS METER</p> <p>END CAP</p> <p>PIPE BREAK</p> <p>ROOF DRAIN FIXTURE</p> <p>DRAIN SIZE</p> <p>DRAIN TAG</p> <p>TYPE (SEE SCHEDULE)</p> <p>DOWNSPOUT NOZZLE</p> <p>PLUMBING FIXTURE</p> <p>PLUMBING FIXTURE TAG</p> <p>TYPE (SEE SCHEDULE)</p> | <p>&amp; AND ROUND</p> <p>∅ AIR CONDITIONING</p> <p>AC ACUSTICAL</p> <p>AD ADD</p> <p>ADDL ADDITIONAL</p> <p>AF ABOVE FINISHED FLOOR</p> <p>AFLE ANNUAL FUEL UTILIZATION EFFICIENCY</p> <p>AG ABOVE GROUND</p> <p>ALT ALTERNATE</p> <p>ALUM ALUMINUM</p> <p>AP ACCESS PANEL</p> <p>APPROX APPROXIMATE</p> <p>ARCH ARCHITECTURAL</p> <p>AV ACID RESISTANT VENT</p> <p>AW ACID RESISTANT WASTE</p> <p>AUTO AUTOMATIC</p> <p>BFF BELOW FINISHED FLOOR</p> <p>BLDG BUILDING</p> <p>BLV BELOW</p> <p>BM BEAM</p> <p>BO BY OTHER</p> <p>BOT BOTTOM</p> <p>BSMT BASEMENT</p> <p>BTU BRITISH THERMAL UNITS</p> <p>BTUH BRITISH THERMAL UNITS PER HOUR</p> <p>BTWN BETWEEN</p> <p>CAP CAPACITY</p> <p>CB CATCH BASIN</p> <p>CCW COUNTER CLOCKWISE</p> <p>CCV CONSTANT FLOW CONTROL VALVE</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CHW CIRCULATING HOT WATER</p> <p>CI CAST IRON</p> <p>CLG CEILING</p> <p>CLD COOLING</p> <p>CO CLEAN OUT</p> <p>COOL COOL</p> <p>COMB COMBINATION</p> <p>CONC CONCRETE</p> <p>COND CONDENSATE</p> <p>CONF CONFERENCE</p> <p>CONN CONNECT</p> <p>CONSTR CONSTRUCTION</p> <p>CONT CONTINUE/CONTINUATION</p> <p>CONTR CONTRACTOR</p> <p>COORD COORDINATE</p> <p>CTR CENTER</p> <p>CUFT CUBIC FEET</p> <p>CY CUBIC YARD</p> <p>CW COLD WATER</p> <p>CLW CLOCKWISE</p> <p>D DEGREE</p> <p>DB DRY BULL</p> <p>DET DETAIL</p> <p>DIA DIAMETER</p> <p>DIAG DIAGONAL</p> <p>DI DIVISION</p> <p>DIW DEIONIZED WATER</p> <p>DMPR DAMPER</p> <p>DN DOWN</p> <p>DWG DRAWING</p> <p>EA EACH</p> <p>EAT ENTERING AIR TEMPERATURE</p> <p>EL ELBOW</p> <p>ELEC ELECTRICAL</p> <p>ELEV ELEVATION</p> <p>EP EXPLOSION PROOF</p> <p>EQ EQUAL</p> <p>EQUIP EQUIPMENT</p> <p>EW ELECTRIC WATER COOLER</p> <p>EWI EXHAUST WATER TEMPERATURE</p> <p>EIA EXHAUST</p> <p>EAH EXHAUST HOOD</p> <p>EXST EXISTING</p> <p>EXP EXPANSION</p> <p>EXJT EXPANSION JOINT</p> <p>F FLOOR</p> <p>F1 FLOOR CLEAN OUT</p> <p>F2 FLOOR DRAIN</p> <p>FD FIRE DAMPER</p> <p>FDV FIRE DEPARTMENT VALVE</p> <p>FL FLOOR</p> <p>FL FIRE HOSE CABINET</p> <p>FL FLEXIBLE</p> <p>FLN FLANGE</p> <p>FO FUEL OIL</p> <p>FOV FUEL OIL VENT</p> <p>FOR FUEL OIL RETURN</p> <p>FOS FUEL OIL SUPPLY</p> <p>FP FEET PER MINUTE</p> <p>FRP FIBERGLASS REINFORCED PIPE</p> <p>FS FULL SIZE</p> <p>FS FLOOR SINK</p> <p>FT FOOTING</p> <p>FTG FOOTING</p> <p>FTR FN TUBE RADIATION</p> <p>GA GAGE/GAUGE</p> <p>GAL GALLON</p> <p>GALV GALVANIZED</p> <p>GC GENERAL CONTRACTOR</p> <p>GEN GENERATOR</p> <p>GENL GENERAL</p> <p>GPM GALLONS PER MINUTE</p> <p>GR GRADE</p> <p>GW GREASE WASTE</p> <p>HBI HOSE BIB</p> <p>HORZ HORIZONTAL</p> <p>HP HORSE POWER</p> <p>HP HIGH PRESSURE</p> <p>HTG HEATING</p> <p>HTR HEATER</p> <p>HW HOT WATER</p> <p>HYD HYDRANT</p> <p>ID INDIRECT</p> <p>IN INCH</p> <p>INL INLET</p> <p>INSUL INSULATION</p> <p>INT INTERIOR</p> <p>INW INCHES WATER GAUGE</p> <p>JT JOINT</p> <p>LAB LABORATORY</p> <p>LB POUNDS</p> <p>LBR POUNDS PER HOUR</p> <p>LF LEAF FOOT</p> <p>LF LIQUID REFRIGERANT</p> <p>LP LOW PRESSURE</p> <p>LPG LIQUEFIED PETROLEUM GAS</p> <p>LR LEAK RATE</p> <p>LS LAWN SPRINKLER</p> <p>LTV LEAVING WATER TEMPERATURE</p> <p>MIA MIXED AIR</p> <p>MAN MANUAL</p> <p>MATL MATERIAL</p> <p>MAV MANUAL AIR VENT</p> <p>MAX MAXIMUM</p> <p>MD MOTOR/RED BYPASS DAMPER</p> <p>MBH ONE THOUSAND BTU PER HOUR</p> <p>MCF ONE THOUSAND CUBIC FEET</p> <p>MCM MAKE-UP COLD WATER</p> <p>MD MOTOR/RED DAMPER</p> <p>MECH MECHANICAL</p> <p>MFR MANUFACTURER</p> <p>MH MANHOLE</p> <p>MIN MINIMUM</p> <p>MISC MISCELLANEOUS</p> <p>MTR MOTOR</p> <p>MUA MAKE-UP AIR</p> <p>N NECK</p> <p>NC NOISE CRITERIA</p> <p>NC NORMALLY CLOSED</p> <p>NC NOT IN CONTACT</p> <p>NO NUMBER</p> <p>NO NORMALLY OPEN</p> <p>NOM NOMINAL</p> <p>NTS NOT TO SCALE</p> <p>O OXYGEN</p> <p>OC OUTSIDE DIA</p> <p>OC ON CENTER</p> <p>OF OVERFLOW</p> <p>OP OPENING</p> <p>ORD OVERFLOW ROOF DRAIN</p> <p>PD PUMP DROP</p> <p>PV PRESSURE REDUCING VALVE</p> <p>PLBG PLUMBING</p> <p>PAR PARALLEL</p> <p>PR PRESSURE</p> <p>PRM PRIMARY</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>PSI POUNDS PER SQUARE INCH</p> <p>PSIG POUNDS PER SQUARE INCH GAUGE</p> <p>PW POTABLE WATER</p> <p>R RADIANT</p> <p>R2 RADIANT CEILING PANEL</p> <p>RD ROOF DRAIN</p> <p>RE RECESSED</p> <p>RED REDUCER</p> <p>REFR REFRIGERATION</p> <p>RH RELATIVE HUMIDITY</p> <p>REQ REQUIRED</p> <p>REV REVERSE</p> <p>RIA RELIEF AIR ROOM</p> <p>RM ROOM</p> <p>RPM REVOLUTIONS PER MINUTE</p> <p>RW RAIN WATER</p> <p>SF SQUARE FOOT</p> <p>SA SUPPLY AIR</p> <p>SAN SANITARY</p> <p>SCHED SCHEDULE</p> <p>SECT SECTION</p> <p>SHT SMOKE DAMPER</p> <p>SD SIMILAR</p> <p>SLV SLEEVE</p> <p>SM SURFACE MOUNT</p> <p>SP STANDPIPE</p> <p>SP STATIC PRESSURE SPECIFICATION</p> <p>SP STATIONARY</p> <p>SPS STATIONARY PRESSURE STATION</p> <p>SQ SQUARE</p> <p>SR SUCTION REFRIGERANT</p> <p>SSD SOL SUBDRAN</p> <p>SS STAINLESS STEEL</p> <p>STD STANDARD</p> <p>STM STEAM</p> <p>STR STRUCTURAL</p> <p>SUCT SUCTION</p> <p>SUSP SUSPENDED</p> <p>TEMP TEMPERATURE CONTROL PANEL</p> <p>TD TEMPERATURE DROP</p> <p>TDR TRENCH DRAIN</p> <p>TEMP TEMPERATURE</p> <p>TYP TYPICAL</p> <p>UG UNDER FLOOR DUCT</p> <p>UG UNDERGROUND</p> <p>VAC VACUUM</p> <p>VENT VENT</p> <p>VAV VARIABLE AIR VOLUME</p> <p>VEL VELOCITY</p> <p>VENT VENT</p> <p>VERT VERTICAL</p> <p>VOL VOLUME</p> <p>VTR VENT THROUGH ROOF</p> <p>W WASTE</p> <p>WB WET BULL</p> <p>WCO WALL CLEAN OUT</p> <p>WH WALL HYDRANT</p> | <p>DEM1 WHERE EQUIPMENT AND/OR FIXTURES ARE INDICATED TO BE REMOVED, THE EXISTING SERVICES SHALL BE CAPPED AND CONCEALED BEHIND FINISHED SURFACES. ABANDONED BRANCH SERVICES SHALL BE REMOVED BACK TO THE MAINS AND CAPPED, UNLESS OTHERWISE INDICATED.</p> <p>DEM2 CAP ANY ABANDONED OR UNUSED PIPE AND/OR DUCT OPENINGS.</p> <p>DEM3 THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND PAINTING TO MATCH EXISTING WALLS, FLOORS, AND CEILING.</p> <p>DEM5 WHERE MATERIAL IS INDICATED TO BE REMOVED, IT SHALL REMAIN THE PROPERTY OF THE OWNER. THIS CONTRACTOR SHALL DISPOSE OF MATERIAL AS DIRECTED BY THE OWNER.</p> <p>DMEO4 HYDRONIC AND DOMESTIC PIPING SHALL BE THOROUGHLY CLEANED BEFORE PUTTING INTO PERMANENT SERVICE.</p> <p>EXST1 REMOVE ALL UNUSED PIPING, DUCTWORK AND ACCESSORIES.</p> <p>EXST2 THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING, PRIOR TO FINAL BID, ALL EXISTING CONDITIONS FOR PLUMBING AND MECHANICAL SYSTEMS.</p> <p>EXST3 WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK.</p> <p>NEW1 COORDINATE AND COOPERATE WITH THE OTHER TRADES ON THE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS.</p> <p>NEW2 THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.</p> <p>NEW3 FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM AND SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANICAL CODE.</p> <p>NEW4 LOCATE EQUIPMENT REQUIRING ACCESS 2'-2" MAXIMUM ABOVE CEILING.</p> <p>NEW5 ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.</p> <p>NEW6 LOCATE DUCTWORK, PIPING AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS, TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT.</p> <p>NEW7 ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT.</p> <p>NEW8 REFER TO PLUMBING SERIES DRAWINGS FOR GAS AND A.C. CONDENSATE DRAIN PIPING.</p> <p>NEW9 PIPE SIZES SHOWN SHALL BE CONTINUED IN THE DIRECTION OF FLOW UNTIL ANOTHER SIZE IS SHOWN.</p> <p>NEW10 FOR DETAILS, EQUIPMENT CONNECTIONS, AND PIPE SIZES NOT SHOWN ON THE SECTIONS, REFER TO DETAILS, SCHEDULES, AND SPECIFICATIONS.</p> <p>NEW11 INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.</p> <p>NEW12 LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE FIELD.</p> <p>NEW13 INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILING.</p> <p>NEW14 MATERIALS AND EQUIPMENT SHOWN ON PLANS SHALL BE NEW AND FURNISHED BY THIS CONTRACTOR UNLESS OTHERWISE INDICATED.</p> <p>NEW15 THIS CONTRACTOR IS RESPONSIBLE FOR ALL SLEEVES AND/OR OPENINGS WHERE REQUIRED TO RUN PIPES AND DUCTS THROUGH FOUNDATIONS, FLOOR SLABS, WALLS, BRIDGING AND BEAMS EXCEPT WHERE OTHERWISE INDICATED.</p> <p>NEW16 CEILING ACCESS IS REQUIRED AT ALL REHEAT COILS, VALVES, FIRE DAMPERS, MANUAL AND MOTORIZED DAMPERS LOCATED ABOVE CEILING. CEILING ACCESS PANELS WILL BE PROVIDED UNDER THE GENERAL SECTION OF CONSTRUCTION AND SHALL BE MINIMUM OF 24" X 24" UNLESS OTHERWISE INDICATED. COORDINATE WITH GENERAL CONTRACTOR.</p> <p>NEW17 THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.</p> <p>NEW18 WHERE NEW SERVICES ARE SHOWN CONNECTING TO EXISTING, VERIFY EXACT LOCATION AND SIZE OF EXISTING.</p> <p>NEW19 EXISTING SERVICES SHALL BE MAINTAINED UNLESS OTHERWISE INDICATED.</p> <p>NEW20 ALL DUCTS, PIPING, FIXTURES, ETC., WHICH ARE DASHED AND/OR INDICATED BY NOTE ON DEMOLITION PLANS SHALL BE REMOVED.</p> <p>NEW21 ALL PLUMBING SHALL BE MAINTAINED AND INSTALLED IN ACCORDANCE WITH NATIONAL, STATE, AND LOCAL CODES.</p> <p>NEW22 SEAL ALL SHEET METAL DUCTWORK JOINTS.</p> <p>NEW23 BALANCING OF AIR AND HYDRONIC SYSTEMS SHALL BE PERFORMED BY AN NEBS OR AABC CERTIFIED TEST AND BALANCE AGENCY.</p> <p>NEW24 PIPE PENETRATIONS OF RATED WALLS AND FLOORS SHALL BE SLEEVED AND PROPERLY FIRE SEALED.</p> <p>NEW26 ALL PIPE AND DUCT PENETRATIONS OF SMOKE PARTITION WALLS SHALL BE PROPERLY SEALED TO RESIST THE PASSAGE OF SMOKE AS REQUIRED BY THE LOCAL AUTHORITY.</p> <p>NEW27 INSTALL FLUSH VALVE OPERATORS ON WIDE SIDE OF ACCESSIBLE STALLS.</p> <p>NEW28 THE HEATING AND/OR COOLING HYDRONIC SYSTEM SHALL BE PROVIDED AND FILLED WITH AN ANTIFREEZE GLYCOL SOLUTION AS INDICATED ON THE EQUIPMENT SCHEDULE(S) BY THE PIPING CONTRACTOR WHO SHALL BE RESPONSIBLE FOR DETERMINING THE AMOUNT OF GLYCOL REQUIRED.</p> <p>NEW29 GREASE DUCTS: PROVIDE 2-HOUR FIRE RATED DUCT WRAP ON GREASE DUCTS BETWEEN CEILING AND ROOF PENETRATION.</p> | <p>NEW1 SUPPLY AND RETURN PIPING TO COILS ARE THE SAME SIZE.</p> <p>NEW2 CONTRACTOR SHALL LOCATE THERMOSTATS, CO2, AND TEMPERATURE SENSORS AT 4'-0" AFF. A MINIMUM OF 8" FROM LIGHT SWITCH.</p> <p>NEW3 REFER TO PIPING DRAWINGS FOR THERMOSTAT, CO2, AND TEMPERATURE SENSOR LOCATIONS.</p> <p>NEW4 CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE "L" COPPER.</p> <p>NEW5 PROVIDE A 4" HOUSEKEEPING PAD FOR EACH PIECE OF MECHANICAL EQUIPMENT. COORDINATE SIZES WITH MECHANICAL EQUIPMENT SELECTED.</p> <p>NEW6 THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.</p> | <p><b>FIRE PROTECTION GENERAL NOTES</b></p> <p>EXST1 PROVIDE ALTERATIONS TO THE EXISTING FIRE SUPPRESSION SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW FLOOR PLAN AND NEW CEILING TYPES. PROVIDE A COMPLETE WET TEST SYSTEM INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. REUSE EXISTING SYSTEM EQUIPMENT WHERE APPLICABLE. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND AS PER REQUIREMENTS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.</p> <p>EXST2 THE BUILDINGS COMPLETE OPERATIONAL FIRE SUPPRESSION SYSTEMS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.</p> <p>EXST3 THIS CONTRACTOR SHALL COORDINATE PHASING OF WORK WITH THE CONSTRUCTION MANAGER OR GENERAL CONTRACTOR PRIOR TO STARTING WORK.</p> <p>NEW1 PROVIDE A COMPLETE WET TYPE FIRE SUPPRESSION SYSTEM AS REQUIRED TO ACCOMMODATE THE FLOOR PLAN AND CEILING TYPES INCLUDING MAINS, BRANCHES, HEADS, VALVES, AND ACCESSORIES AS REQUIRED. THE SYSTEM SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS OF THE STATE BUILDING CODE, LOCAL FIRE DEPARTMENT, AND ALL FEDERAL, STATE, AND LOCAL AUTHORITIES, NFPA, AND FACTORY MUTUAL.</p> <p>NEW2 THE FIRE SUPPRESSION SYSTEM SHALL BE DESIGNED BASED UPON ACTUAL WATER FLOW WITH FIRE SPRINKLER SYSTEM.</p> <p>NEW3 DIVISION 21 CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR FOR PROPER INSTALLATION OF THE FIRE SUPPRESSION SYSTEMS ALARM DEVICES INVOLVED WITH FIRE SPRINKLER SYSTEM.</p> <p>NEW4 ALL FIRE SUPPRESSION SYSTEM PIPING SHALL BE CONCEALED ABOVE THE SUSPENDED CEILING SYSTEM, UNLESS NOTED OTHERWISE. WRITTEN AUTHORIZATION SHALL BE OBTAINED FROM THE ARCHITECT PRIOR TO EXPOSING ANY PIPING IN ANY ROOM WHICH HAS A SUSPENDED CEILING.</p> <p>NEW5 AUXILIARY DRAINS SHALL BE EXPOSED WITH 1" DRAIN VALVES. WHEN 5 OR MORE GALLONS ARE TRAPPED, THIS CONTRACTOR SHALL PROVIDE FIXED PIPING TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE DRAIN, WHEN LESS THAN 5 GALLONS ARE TRAPPED, A HOSE BIB SHALL BE PROVIDED AT THE DRAIN VALVE.</p> <p>NEW6 AUXILIARY DRAINS SHALL NOT BE LOCATED ABOVE PLASTER OR GYPSUM BOARD CEILING SYSTEMS.</p> <p>NEW7 AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED FOR EACH FIRE SUPPRESSION SYSTEM. THIS CONTRACTOR SHALL PROVIDE FIXED PIPING FROM THE TEST CONNECTION TO AN ADEQUATELY SIZED RECEPTOR WHICH IS CAPABLE OF ACCEPTING THE FULL FLOW OF THE TEST. EXTERIOR DISCHARGE OF THE TEST CONNECTION SHALL BE PERMITTED ONLY BY SPECIFIC WRITTEN INSTRUCTIONS FROM THE ENGINEER.</p> <p>NEW8 SHOW ALL ROOM NAMES &amp; NUMBERS ON SHOP DRAWING PLANS.</p> <p>NEW9 THE CONTRACTOR SHALL PERFORM A FIRE FLOW TEST IN ACCORDANCE WITH NFPA 291.</p> <p>NEW10 ROUTE PIPING SUCH THAT IT DOES NOT RUN ABOVE ELECTRICAL PANELS, SWITCHGEAR, OR SIMILAR EQUIPMENT. MAINS SHALL NOT RUN THROUGH ELECTRICAL OR COMMUNICATION ROOMS. SPRINKLERS IN THESE ROOMS SHALL BE SERVED BY A DEDICATED BRANCH LINE FOR EACH ROOM.</p> <p>NEW11 THIS CONTRACTOR SHALL DETERMINE THE PIPE ROUTING AND SIZING REQUIRED AND COORDINATE WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS.</p> <p>NEW12 THIS CONTRACTOR SHALL PREPARE HYDRAULIC CALCULATIONS BASED UPON THE CONFIGURATION OF THE ACTUAL SYSTEM DESIGN AS SHOWN ON THIS CONTRACTOR'S SHOP DRAWINGS.</p> <p>NEW13 FIRE STOPPING &amp; SEALING: ALL PIPE AND DUCT WHICH PENETRATE RATED WALLS AND OR CEILING ASSEMBLIES SHALL BE PROPERLY FIRE STOPPED AND SEALED AS REQUIRED BY THE LOCAL BUILDING CODE AUTHORITIES. SEE DETAILS.</p> <p>NEW14 THE FIRE SUPPRESSION CONTRACTOR SHALL SUBMIT DETAILED WORKING PLANS SHOWING PROPER SPRINKLER PLACEMENT, HYDRAULIC CALCULATIONS AND PIPE SIZE FOR THIS PROJECT PRIOR TO COMMENCING INSTALLATION.</p> <p>NEW15 FIRE SUPPRESSION CONTRACTOR SHALL VERIFY ALL EXISTING FIRE SUPPRESSION PIPING AND SPRINKLERS WITH RESPECT TO ALL NEW MECHANICAL EQUIPMENT LOCATION. IF THERE IS ANY INTERFERENCE NOTED, THE FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE TO RELOCATE EXISTING PIPING AND SPRINKLERS TO MEET REQUIREMENTS.</p> <p>NEW16 SPRINKLER AND PIPING INSTALLATION SHALL BE COORDINATED CAREFULLY WITH NEW AND EXISTING LIGHTS, GRILLES, SPEAKERS, ETC., TO AVOID CONFLICTS.</p> <p>NEW17 CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND REINSTALLATION OF EXISTING CEILING(S) REQUIRED TO INSTALL PIPING (UNLESS NOTED OTHERWISE).</p> |
| <b>SHEET INDEX - MECHANICAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| <p><b>PLUMBING GENERAL NOTES</b></p> <p>EXST1 FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.</p> <p>NEW1 PITCH UNDERFLOOR SANITARY WASTE AND STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. PITCH ALL OTHER WASTE PIPING AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.</p> <p>NEW2 FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.</p> <p>NEW3 PROVIDE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFER TO CIVIL PLANS.</p> <p>NEW4 WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM.</p> <p>NEW5 PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING RISERS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| <p>*NOTE*</p> <p>ALL OF GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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06180243.00 Malloy Laundry Chute, ITH.dwg 2/22/2019 4:48:15 PM



**D1 PLUMBING DEMOLITION PLAN - LOWER LEVEL**  
SCALE: 1/8" = 1'-0"



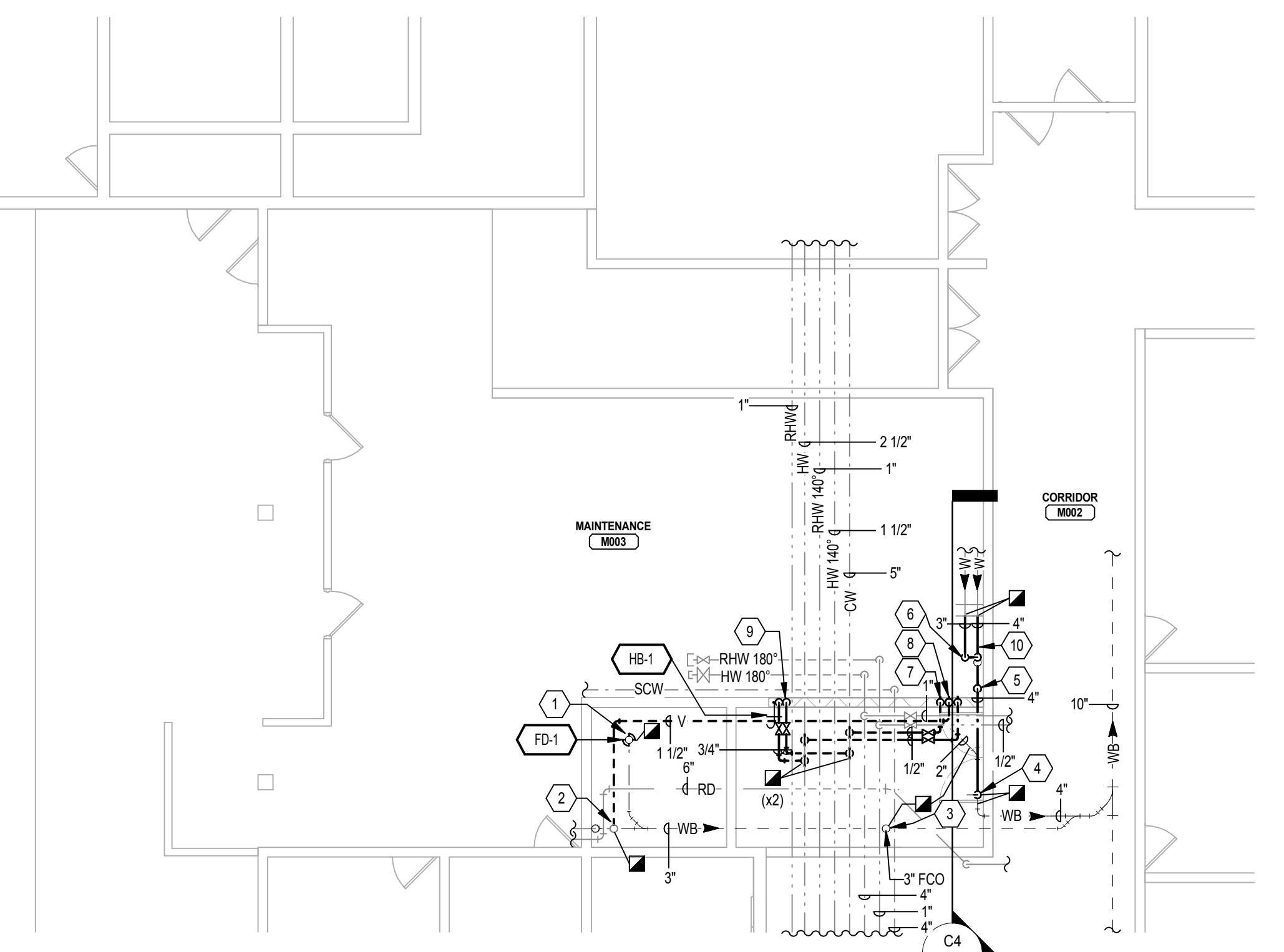
**C1 PLUMBING ELEVATION VIEW - EXISTING WASTE STACK REMOVAL**  
SCALE: 1/4" = 1'-0"

**SHEET GENERAL NOTES**

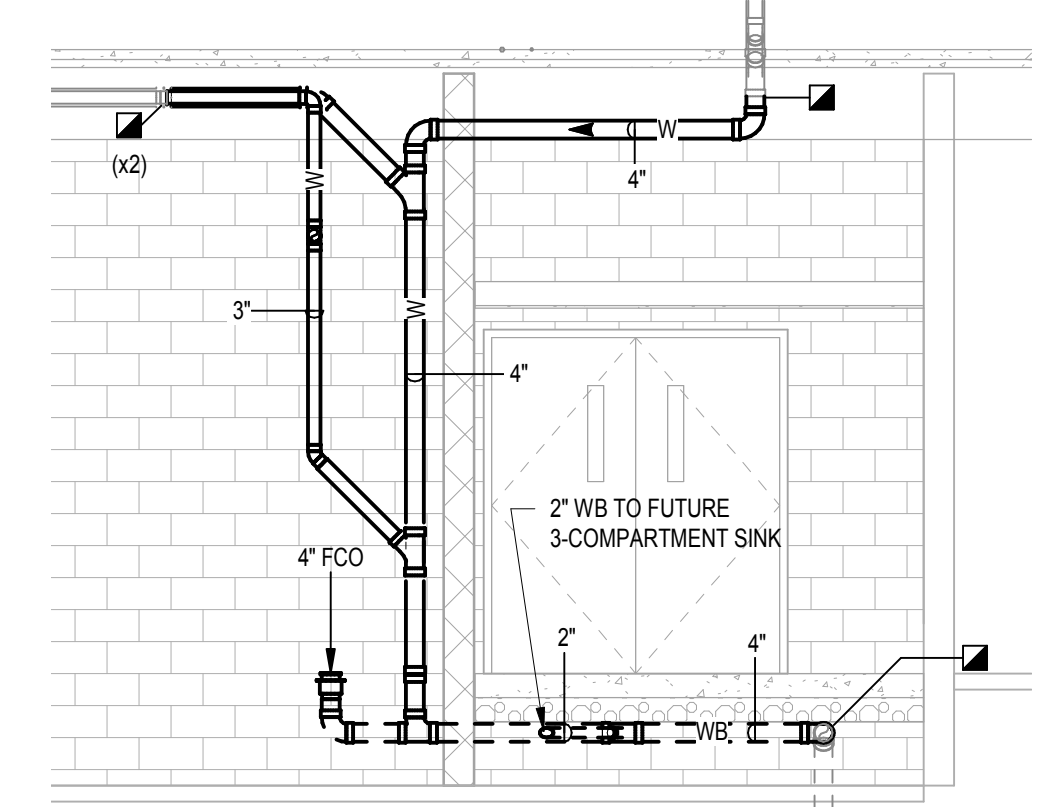
- EQUIPMENT, DUCTWORK, PIPING, ETC. TO BE REMOVED OR RELOCATED IS SHOWN IN HEAVY DASHED LINES, UNLESS NOTED OTHERWISE.
- EQUIPMENT, DUCTWORK, PIPING, ETC. TO REMAIN IS SHOWN IN LIGHT LINES, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL CONFIRM LOCATION AND SIZE OF EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC.
- COORDINATE WORK WITH ALL OTHER TRADES. UNCOORDINATED WORK WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- COORDINATE ALL SYSTEM SHUTDOWNS WITH OWNER'S REPRESENTATIVE.
- COORDINATE WORK IN ALL OCCUPIED PROJECT AREAS WITH OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.

**KEYNOTES**

- REMOVE FLOOR DRAIN AND EXTEND WASTE PIPING TO MATCH NEW FLOOR ELEVATION. CUT AND PATCH CONCRETE AS REQUIRED. COORDINATE REQUIREMENTS WITH G.C.
- REMOVE CLEAN OUT AND EXTEND WASTE PIPING TO MATCH NEW FLOOR ELEVATION. CUT AND PATCH CONCRETE AS REQUIRED. COORDINATE REQUIREMENTS WITH G.C.
- 4" WASTE STACK TO BE RELOCATED TO AVOID CONFLICT WITH NEW DOOR LOCATION. REMOVE 4" CAST IRON WASTE PIPING FROM FLOOR ABOVE DN TO FLOOR LEVEL. PREPARE WASTE FOR NEW CONNECTION TO RELOCATED PIPING. REFERENCE SECTION C1, SHEET M-101 FOR FURTHER INFORMATION. 3" COPPER PIPING SHALL ALSO BE RELOCATED. CONTRACTOR TO FIELD VERIFY THAT SERVICES CONNECTED TO COPPER PIPING ARE STILL OPERATIONAL. 2" COPPER PIPING BYPASS AND SOLENOID VALVE CAN BE REMOVED ENTIRELY.
- 4" W & 2" V UP TO REMAIN. PREPARE PIPE FOR NEW CONNECTION.
- REMOVE SOLENOID VALVE AND COPPER BYPASS PIPING COMPLETELY. REMAINING 3" COPPER PIPING SHALL BE REROUTED TO MAINTAIN SERVICES.



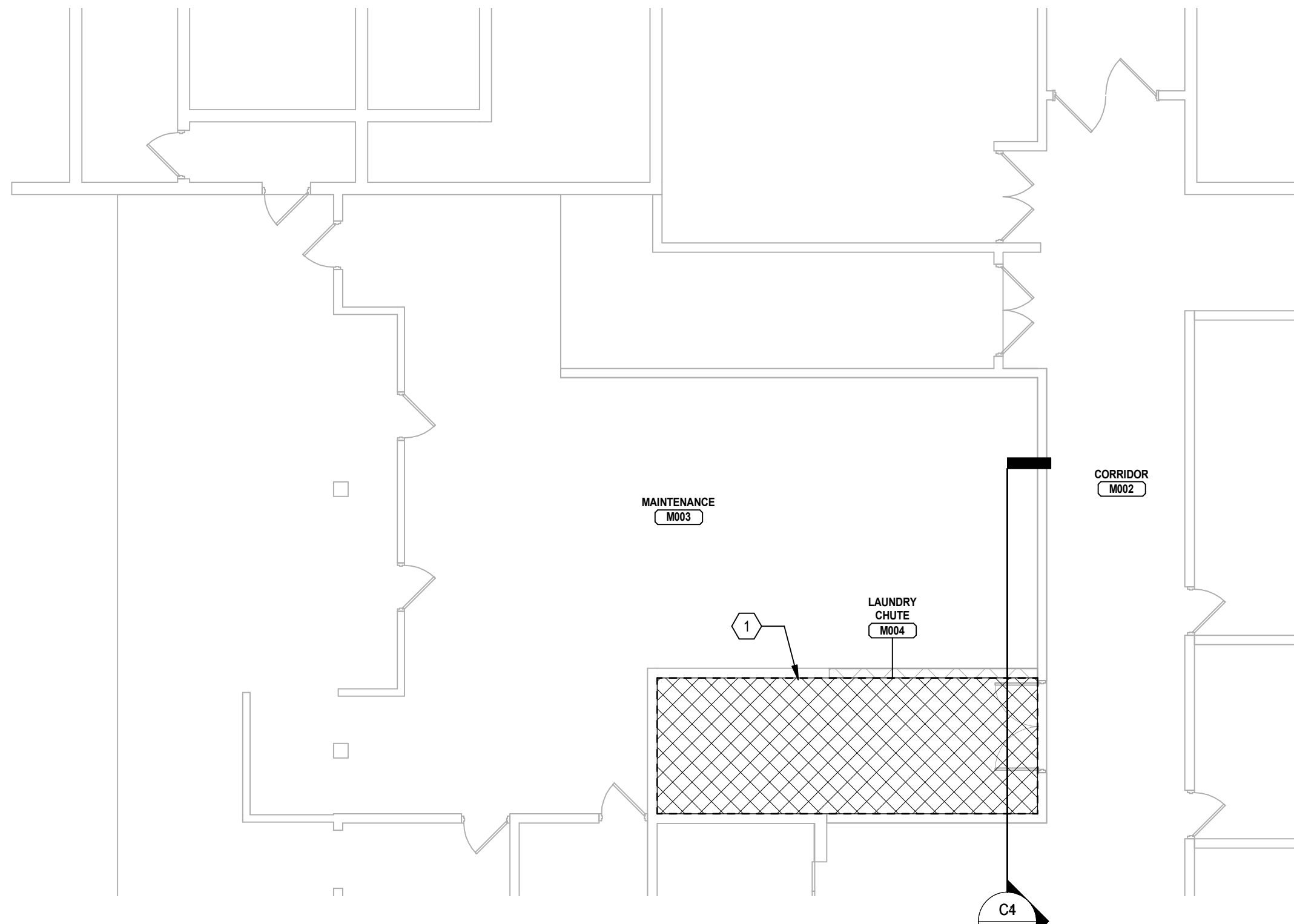
**D4 PLUMBING PLAN - LOWER LEVEL**  
SCALE: 1/8" = 1'-0"



**C4 PLUMBING ELEVATION VIEW - WASTE STACK RELOCATION**  
SCALE: NOT TO SCALE

**KEYNOTES**

- INSTALL NEW FLOOR DRAIN AT SAME LOCATION IN RAISED FLOOR. COORDINATE ANY ASSOCIATED CONCRETE WORK WITH G.C.
- CONTRACTOR TO FIELD VERIFY EXISTING FLOOR DRAIN VENTING. CONTACT AHJ REGARDING REUSE OF EXISTING VENT LOCATED AT 8'-0" AFF. IF REQUIRED, PROVIDE NEW VENT FOR FLOOR DRAIN A MAXIMUM OF 6'-0" FROM TRAP WEIR. CUT AND PATCH CONCRETE AS REQUIRED. COORDINATE REQUIREMENTS WITH G.C.
- INSTALL NEW FLOOR CLEANOUT AT SAME LOCATION IN RAISED FLOOR. COORDINATE ANY ASSOCIATED CONCRETE WORK WITH G.C.
- CONNECT NEW 4" W TO EXIST. 4" W UP.
- 4" W DN TIGHT TO WALL THRU FLOOR CONNECT TO EXIST. 4" WB.
- 3" W DN BELOW 4" W TIGHT TO WALL.
- 1/2" HW & 1/2" CW DN TO ROUGH IN FOR FUTURE 3-COMPARTMENT SINK VALVES SHALL REMAIN CLOSED UNTIL FIXTURE IS INSTALLED.
- 2" W DN, 1 1/2" V UP TO FUTURE 3-COMPARTMENT SINK.
- 3/4" HW & CW DN TO HB-1.
- 4" FCO



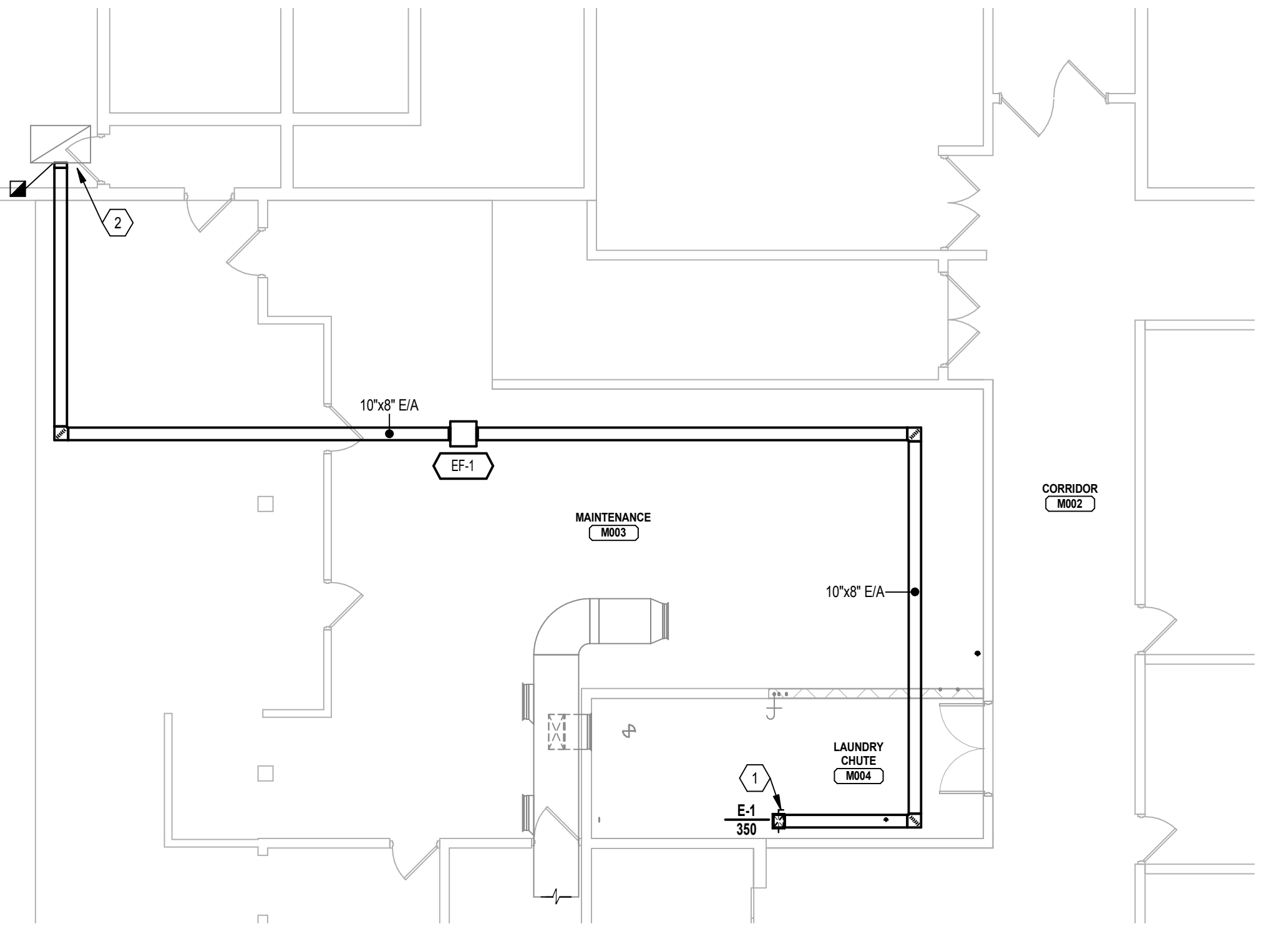
**A1 FIRE PROTECTION PLAN - LOWER LEVEL**  
SCALE: 1/8" = 1'-0"

**SHEET GENERAL NOTES**

- PROVIDE BRASS UPRIGHT HEADS IN AREAS WHERE THE STRUCTURE IS EXPOSED.
- REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR AREAS WITH CEILINGS OR AREAS THAT ARE EXPOSED.

**KEYNOTES**

- REVISE FIRE SUPPRESSION SYSTEM IN HATCHED AREA AS REQUIRED TO PROVIDE 100% COVERAGE TO REMODELED AREA AND TO ACCOMMODATE NEW DUCTWORK, PIPING, LIGHTS, ETC. COORDINATE SPRINKLER LOCATIONS WITH NEW CEILING, LIGHTING, DIFFUSER LAYOUT, ETC. MATCH EXISTING SPRINKLER HEADS.



**A4 MECHANICAL HVAC PLAN - LOWER LEVEL**  
SCALE: 1/8" = 1'-0"

**KEYNOTES**

- 12"x8" EXHAUST DUCTWORK DN TO E-1. PROVIDE FIRE DAMPER AT TOP PENETRATION OF FIRE RATED CEILING.
- TAP INTO EXIST. CAPPED 48 x 30" EA RISER. CONTRACTOR TO FIELD VERIFY THAT EXHAUST DUCTWORK IS NOT ABANDONED AND SERVICES ARE STILL OPERATIONAL. CONTACT ENGINEER IF CONDITIONS ARE NOT AS EXPECTED.



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PROJECT TITLE

**IVH**

**MALLOY LAUNDRY CHUTE**

IDAS Project # 8890.00

**Marshalltown, Iowa**

ISSUES

| MARK        | DATE       | DESCRIPTION |
|-------------|------------|-------------|
| ISSUE DATE  | DRAWN BY   |             |
| 02/22/2019  | JLP        |             |
| PROJECT #   | CHECKED BY |             |
| 06180243.00 | SMT        |             |

SHEET TITLE  
**MECHANICAL FLOOR PLANS**

SHEET NUMBER

**M-101**

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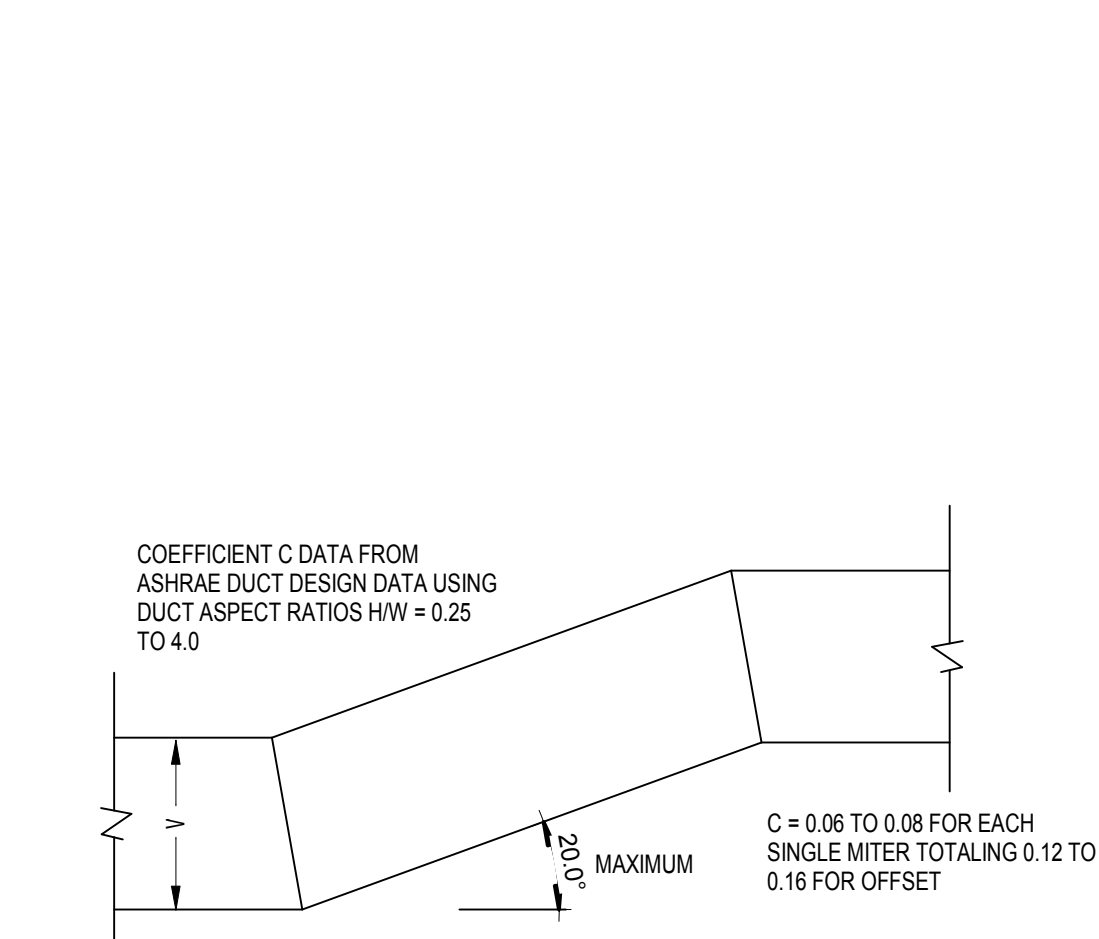
| EXHAUST FAN & POWER ROOF VENT SCHEDULE |                 |                   |              |           |                             |         |            |      |             |                         |                 |        |             |                     |            |      |          |            |         |            |            |    |               |        |  |
|----------------------------------------|-----------------|-------------------|--------------|-----------|-----------------------------|---------|------------|------|-------------|-------------------------|-----------------|--------|-------------|---------------------|------------|------|----------|------------|---------|------------|------------|----|---------------|--------|--|
| EQUIPMENT REQUIREMENTS                 |                 |                   |              |           |                             |         |            |      |             | ELECTRICAL REQUIREMENTS |                 |        |             |                     |            |      |          |            |         |            |            |    |               |        |  |
| UNIT NO.                               | LOCATION        | SERVES            | MANUFACTURER | MODEL NO. | TYPE                        | AIRFLOW | TSP        | RPM  | BRAKE POWER | POWER                   | EQUIPMENT NOTES | VOLTPH | MIN CKT AMP | WIRE SIZE / CONDUIT | CONTROLLER |      |          |            | CONTROL | DISCONNECT | ELECTRICAL |    |               |        |  |
|                                        |                 |                   |              |           |                             |         |            |      |             |                         |                 |        |             |                     | TYPE       | SIZE | LOCATION | CTL DEVICE | AUX     | BY         | BY         | BY | NOTES         |        |  |
| EF-1                                   | MAINTENANCE MOB | LAUNDRY CHUTE MOB | GREENHECK    | SQ-86-VG  | IN-LINE CENTRIFUGAL EXHAUST | 350 CFM | 0.75 ft-wg | 1638 | 0.16 hp     | 0.25 hp                 | 1.2.3           | 115/1  | 7.25        | #12 / 3/4" CONDUIT  | -          | -    | -        | -          | -       | -          | DIV 23     | E1 | TOGGLE SWITCH | DIV 23 |  |

MECH NOTES:  
 1. PROVIDE WITH EC MOTOR AND 0-10V DC EXTERNAL FAN SPEED CONTROLLER WITH SEAMLESS BMS INTEGRATION.  
 2. PROVIDE INTEGRAL DISCONNECT.  
 3. PROVIDE WITH VIBRATION ISOLATORS.

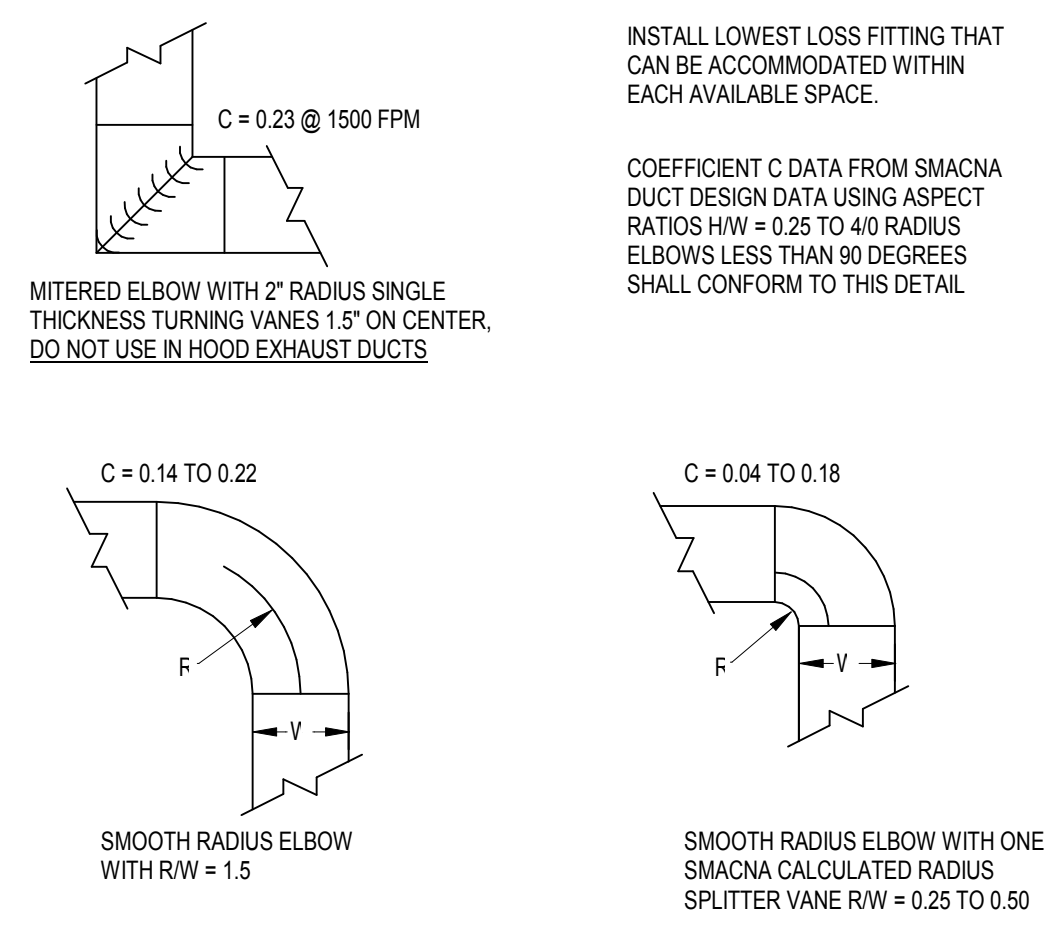
ELEC NOTES:  
 E1. FAN TO RUN 24/7 OPERATION.

| PLUMBING FIXTURE SCHEDULE |             |              |          |                                                                                                                                                                                                                                                                                     |                       |           |             |      |       |        |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|-------------|--------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------|-------------|------|-------|--------|-----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| UNIT NO.                  | DESCRIPTION | MANUFACTURER | MODEL    | SPECIFICATIONS                                                                                                                                                                                                                                                                      | FLUSH VALVE OR FAUCET | ACCESSORY | CONNECTIONS |      |       |        | MOUNTING HEIGHT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                           |             |              |          |                                                                                                                                                                                                                                                                                     |                       |           | CW          | HW   | WASTE | VENT   |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FD-1                      | FLOOR DRAIN | SILOUX CHIEF | 833      | CAST IRON, NICKEL BRONZE ADJUSTABLE STRAINER, FLASHING COLLAR CLAMP AND P-TRAP.                                                                                                                                                                                                     |                       |           | -           | -    | -     | 1 1/2" |                 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HB-1                      | HOSE BIBB   | ZURN         | Z1327-EZ | STAINLESS STEEL RECESSED HOT AND COLD HOSE BIBB SUPPLY BOX WITH WALL FLANGE, HINGED DOOR, AND VACUUM BREAKER ON BOTH HOT AND COLD OUTLETS. VALVES SHALL BE CASTROSE OPERATED TYPE WITH VANDAL RESISTANT LOCKSHIELD, REMOVABLE LOOSE KEY WHEEL HANDLE AND SCREWDRIVER OPERATED STOP. |                       |           | 3/4"        | 3/4" | -     | -      | 24" ABOVE FLOOR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

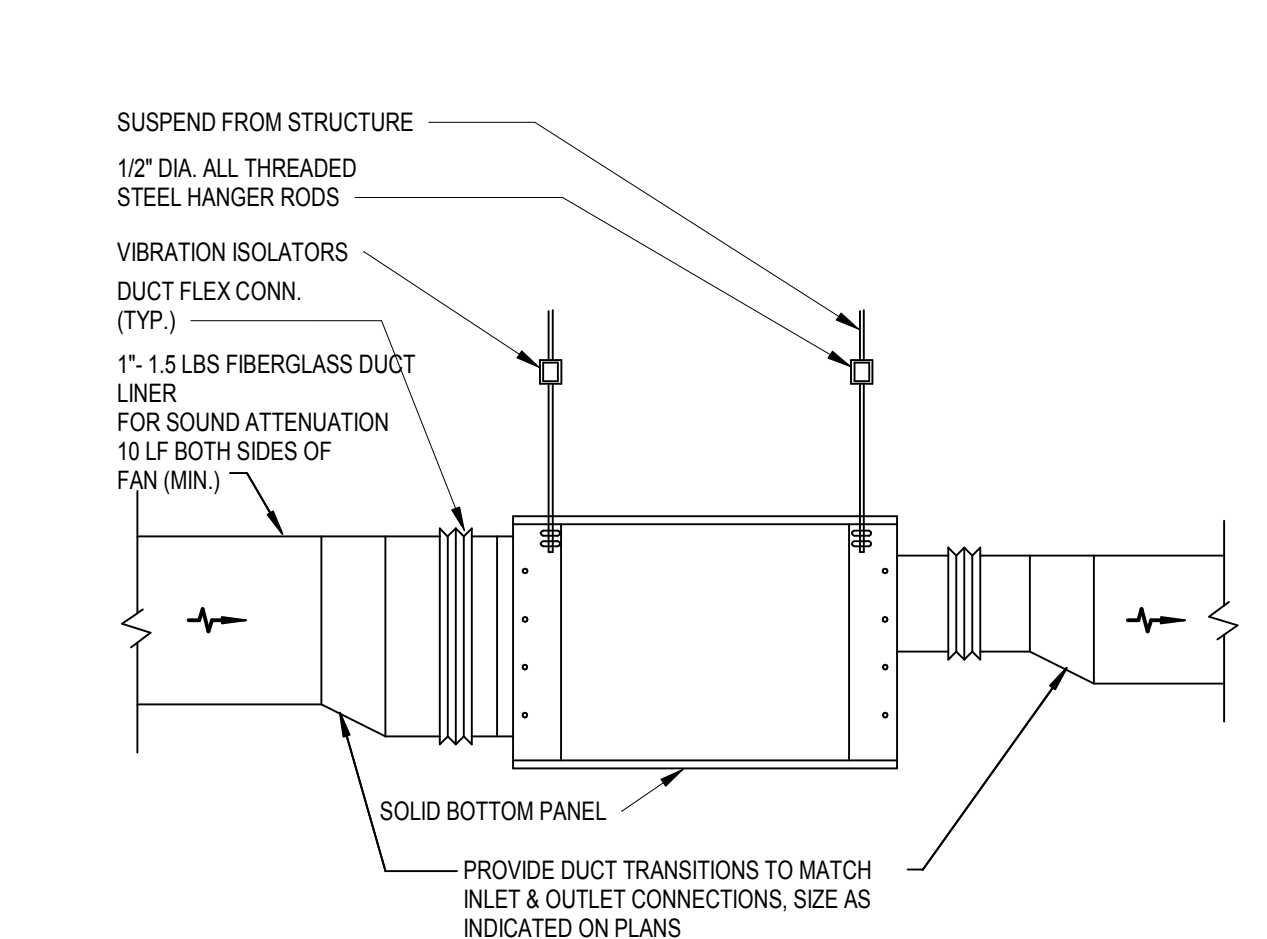
| GRILLES, REGISTERS AND DIFFUSERS SCHEDULE |         |              |           |           |               |                                  |             |             |                 |              |          |         |
|-------------------------------------------|---------|--------------|-----------|-----------|---------------|----------------------------------|-------------|-------------|-----------------|--------------|----------|---------|
| TYPE                                      | SYSTEM  | MANUFACTURER | MODEL NO. | NECK SIZE | MOUNTING TYPE | SPECIFICATION                    | MAX HC (IN) | MAX PD (IN) | INTEGRAL DAMPER | FINISH COLOR | MATERIAL | REMARKS |
| E-1                                       | EXHAUST | KRUEGER      | EGG15     | 12X10     | SURFACE       | 1/2"X1/2"X1" CUBE CORE, 1" FRAME | 20          | 0.08        | -               | WHITE        | ALUMINUM |         |



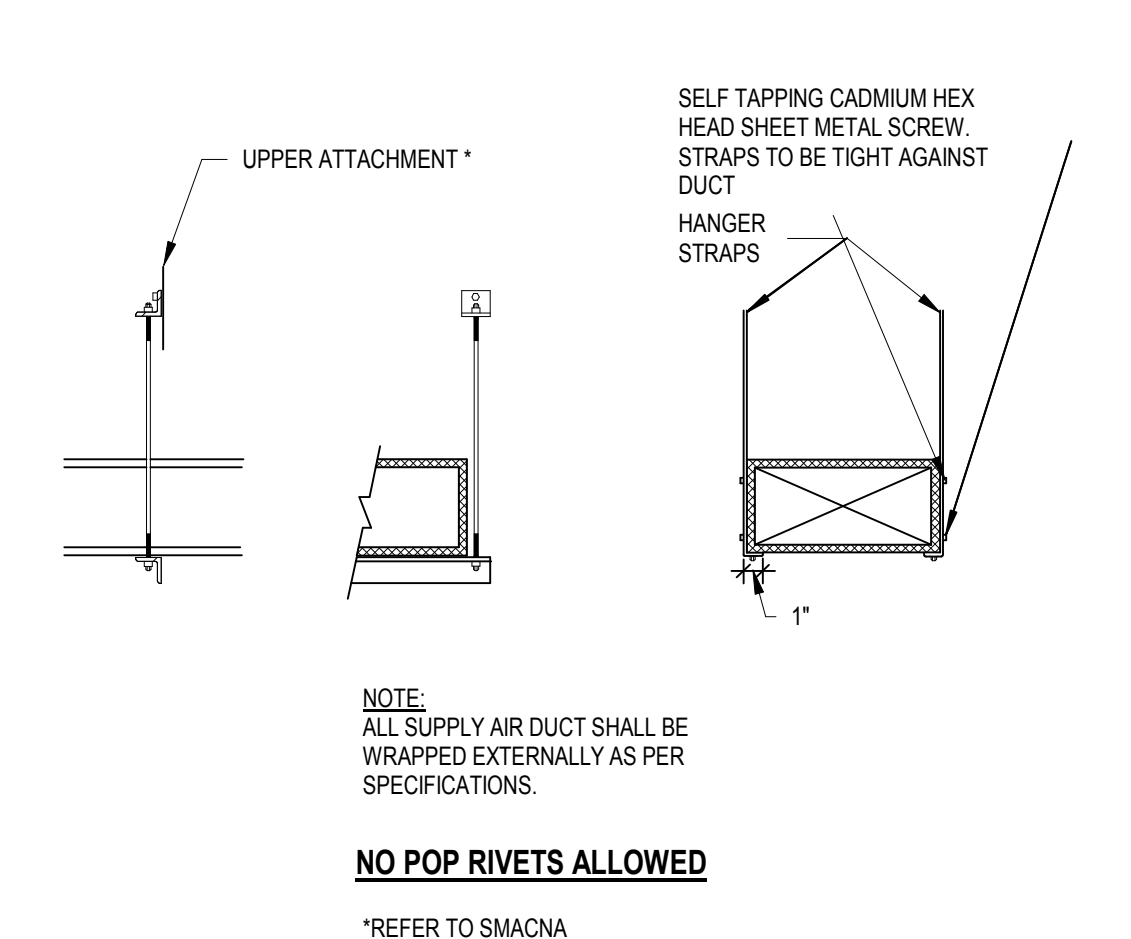
**B1** SINGLE MITER OFFSETS  
SCALE: NOT TO SCALE



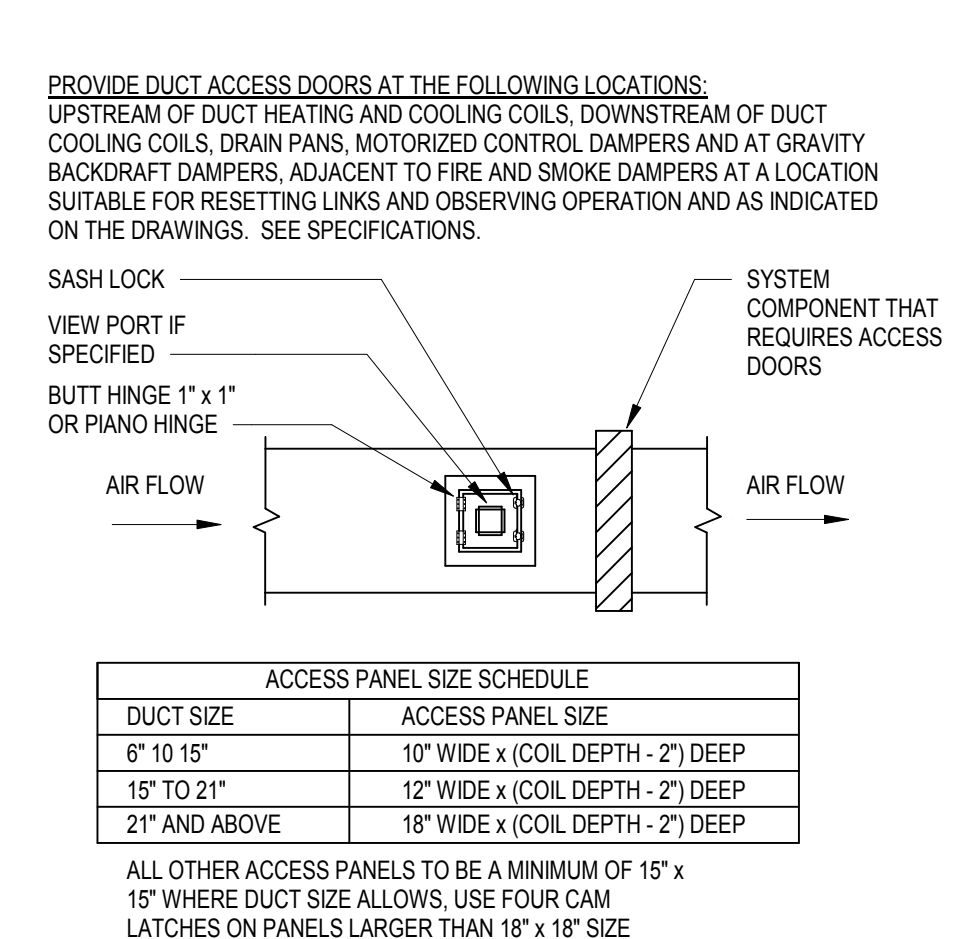
**B2** DUCT ELBOWS  
SCALE: NOT TO SCALE



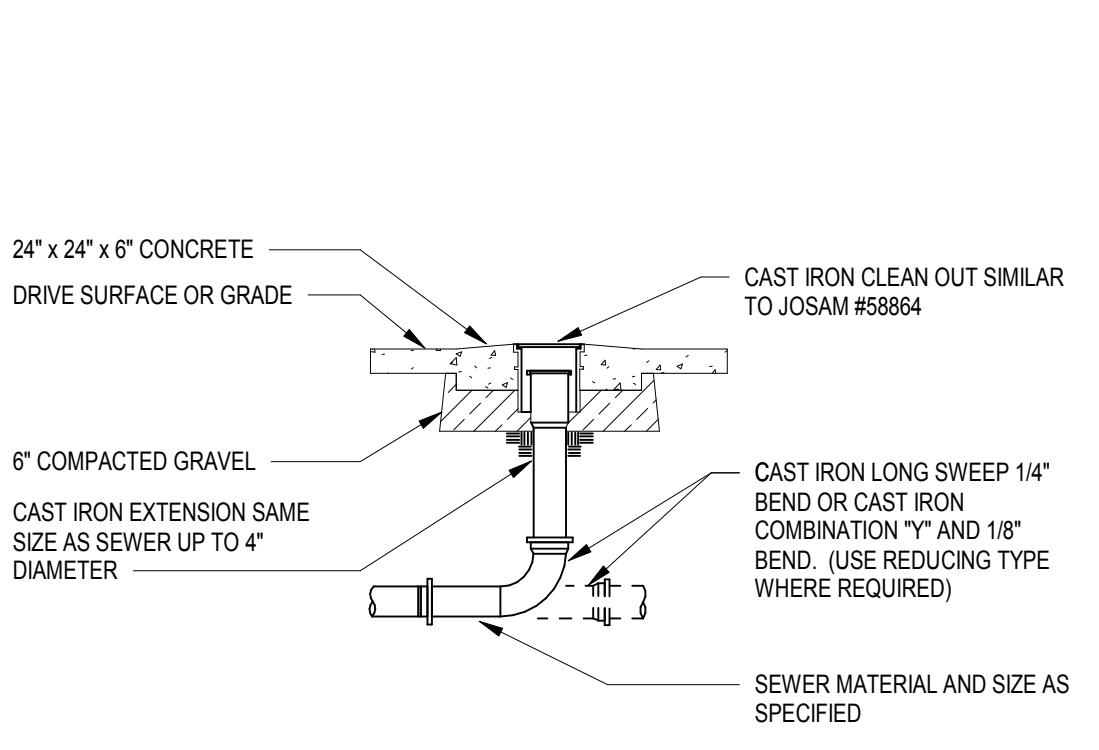
**B3** IN-LINE EXHAUST FAN  
SCALE: NOT TO SCALE



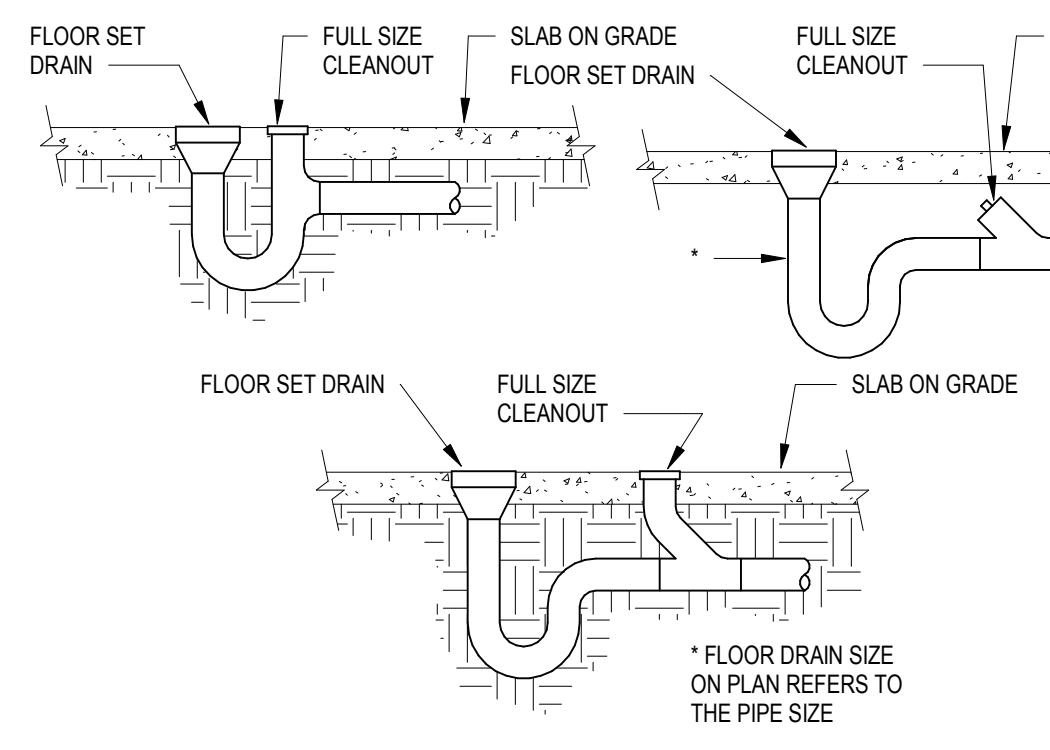
**B4** DUCT STRAP HANGER  
SCALE: NOT TO SCALE



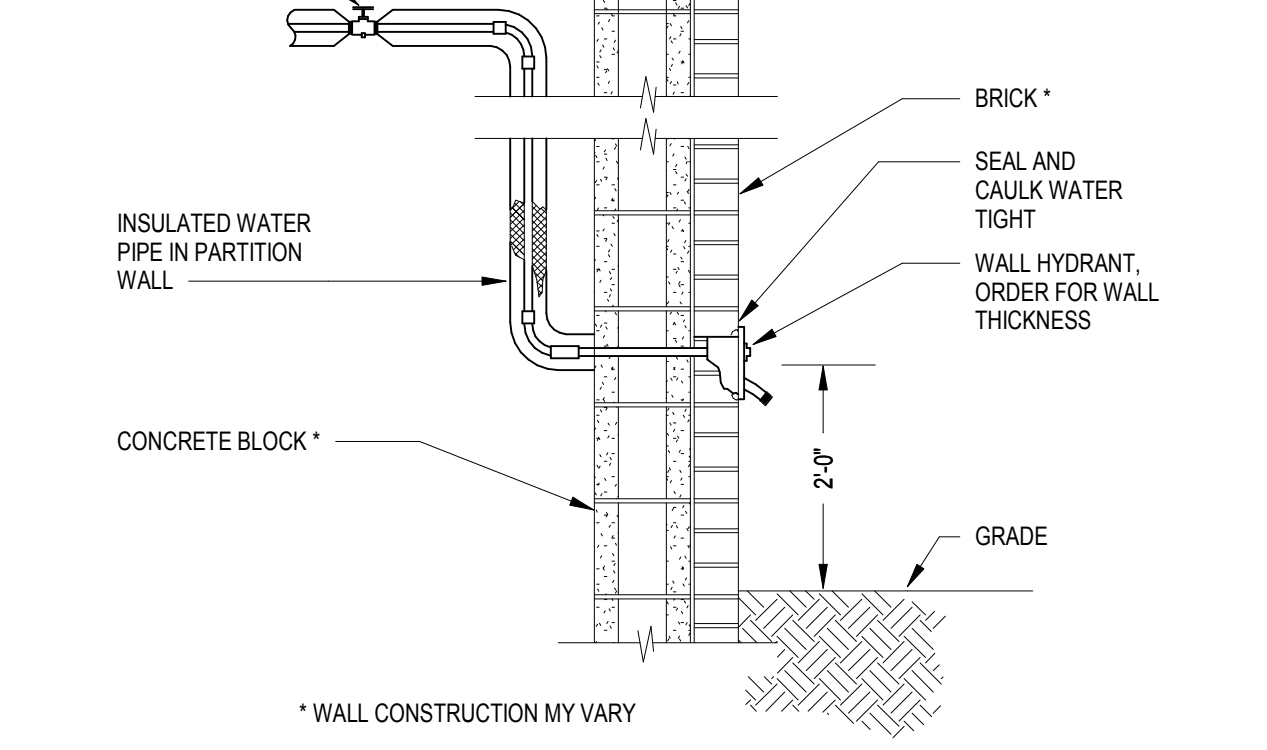
**B5** DUCT SYSTEM ACCESS DOORS  
SCALE: NOT TO SCALE



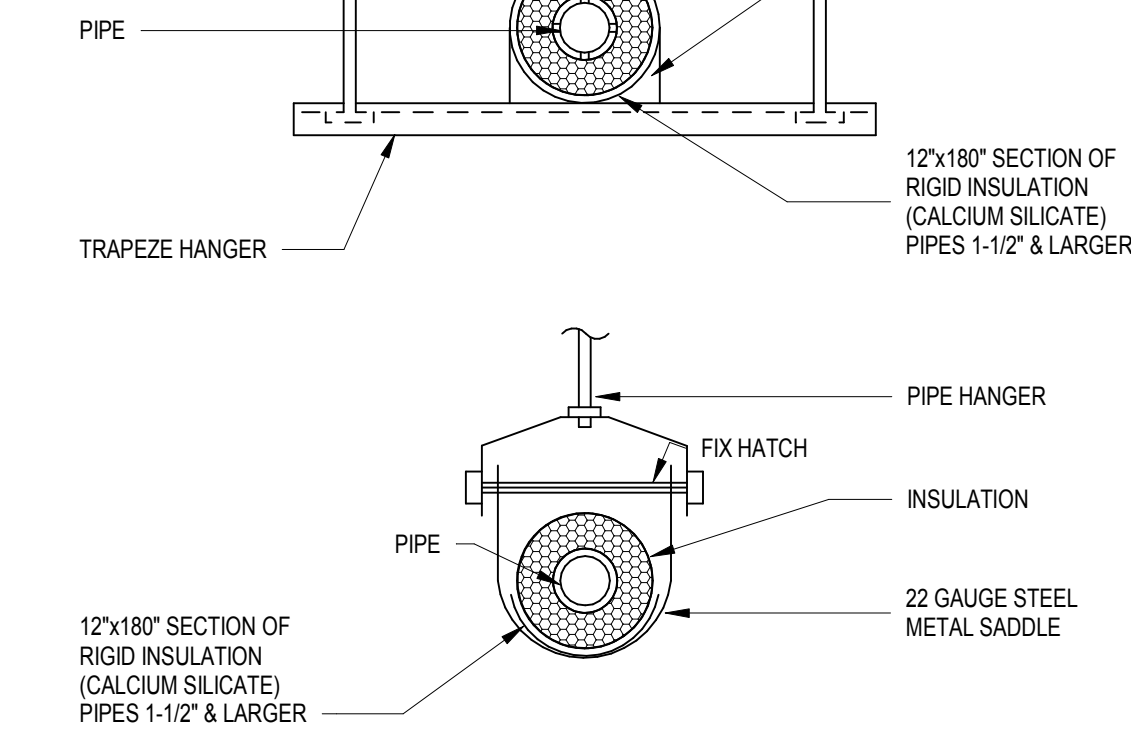
**A1** EXTERIOR CLEANOUT  
SCALE: NOT TO SCALE



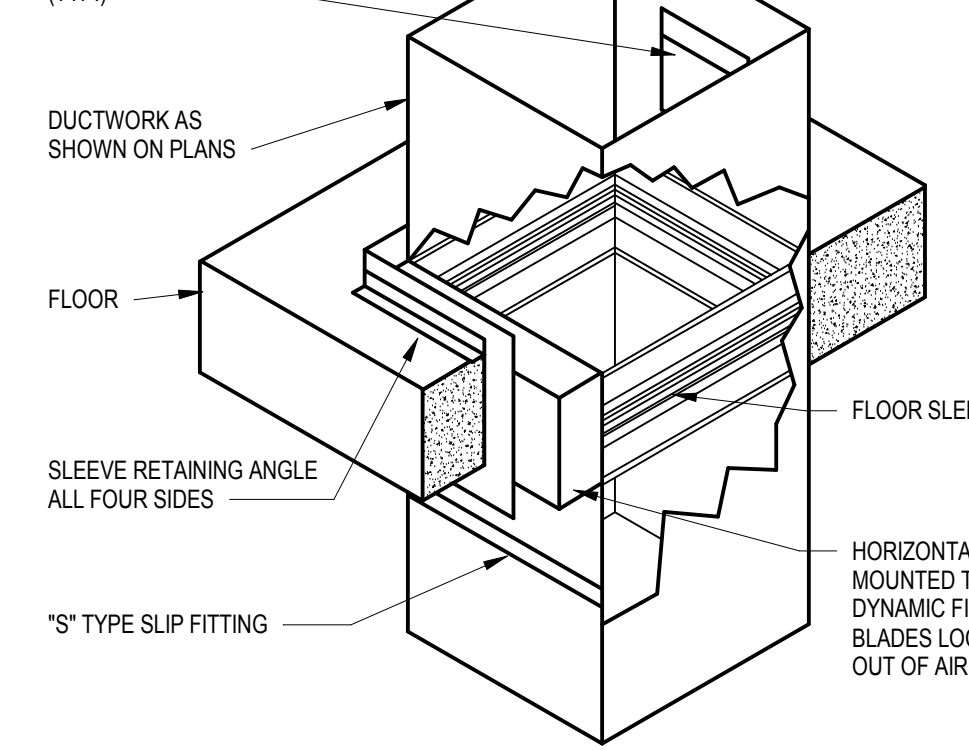
**A2** FLOOR DRAIN  
SCALE: NOT TO SCALE



**A3** WALL HYDRANT  
SCALE: NOT TO SCALE



**A4** HANGER AND INSULATION SADDLES  
SCALE: NOT TO SCALE



**A5** FIRE DAMPER  
SCALE: NOT TO SCALE

06180208 JPH/Melby/Laundry Chute, MIT, attached.rvt  
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**IVH**  
**MALLOY LAUNDRY CHUTE**  
 IDAS Project # 8890.00  
**Marshalltown, Iowa**

| MARK       | DATE         | DESCRIPTION    |
|------------|--------------|----------------|
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| PROJECT #  | 061802043.00 | CHECKED BY SMT |

SHEET TITLE  
**MECHANICAL SCHEDULES & DETAILS**

SHEET NUMBER  
**ME601**

LISTED DRAWINGS SCALES UNLESS REDUCED FROM ORIGINAL 30" x 42" FORMAT

BID DOCUMENTS



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LISTED DRAWING SCALES UNLESS REDUCED FROM ORIGINAL 31" x 42" FORMAT

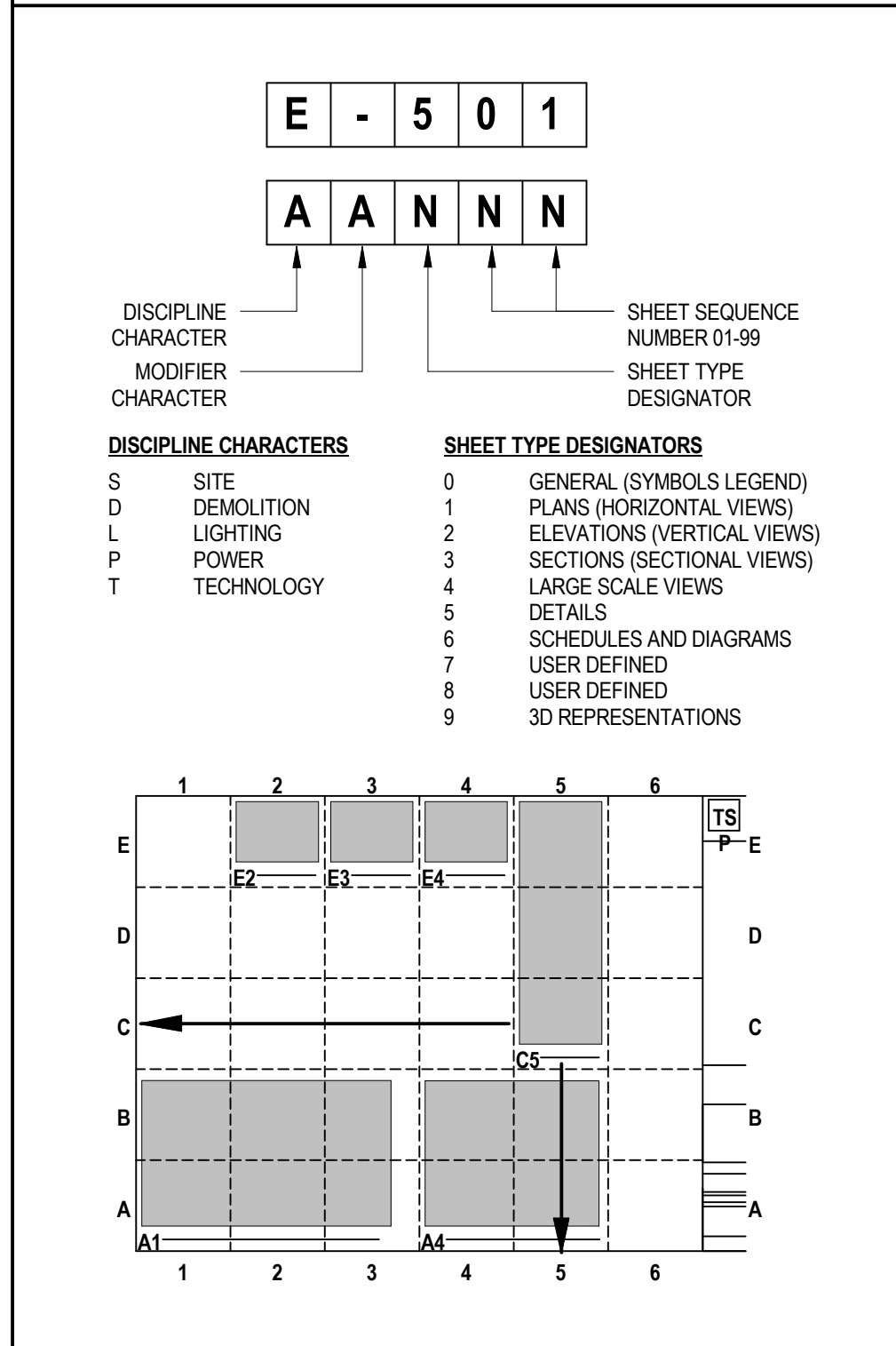
### ELECTRICAL ABBREVIATIONS LIST

|         |                                         |        |                                  |      |                                           |                           |                                          |        |                                        |             |
|---------|-----------------------------------------|--------|----------------------------------|------|-------------------------------------------|---------------------------|------------------------------------------|--------|----------------------------------------|-------------|
| 1P      | 1 POLE (3P, 4P, ETC.)                   | DCP    | DOMESTIC WATER CIRCULATING PUMP  | HT   | HEARTH                                    | NEMA                      | NATIONAL ELECTRICAL CODE                 | SUF    | SURFACE MOUNTED SWITCH                 |             |
| A       | AMPERE                                  | DEPT   | DEPARTMENT                       | HTR  | HEATER                                    | MANUFACTURERS ASSOCIATION | SYMB                                     | SYMBOL | SWB                                    | SWITCHBOARD |
| AC      | AIR CONDITIONER                         | DIS    | DISCONNECT                       | HV   | HIGH VOLTAGE                              | NFOS                      | NON-FUSED SAFETY SYSTEM                  | TEL    | TELEPHONE TERMINAL                     |             |
| AFC     | ABOVE FINISHED COUNTER                  | DIST   | DISTRIBUTION                     | HVAC | HEATING, VENTILATING AND AIR CONDITIONING | NIC                       | NOT IN CONTRACT                          | TR     | TAMPERS RESISTANT THERMOSTAT           |             |
| AFF     | ABOVE FINISHED FLOOR                    | DN     | DOWN                             | HWP  | HYDRONIC WATER PUMP                       | NL                        | NIGHT LIGHT                              | TSTAT  | THERMOSTAT                             |             |
| AFI     | ARC FAULT CIRCUIT INTERRUPTER           | DT     | DOUBLE THROW                     | IC   | INTERRUPTING CAPACITY                     | N.O.                      | NORMALLY OPEN                            | TY     | TYPICAL                                |             |
| AHU     | AIR HANDLING UNIT                       | DWG    | DRAWING                          | IG   | ISOLATED GROUND                           | NTS                       | NOT TO SCALE                             | UC     | UNDER COUNTER UNDERGROUND ELECTRICAL   |             |
| AI      | AVAILABLE INTERRUPTING FAULT CURRENT    | EC     | ELECTRICAL CONTRACTOR            | MC   | METAL CLAD                                | OH                        | OVERHEAD                                 | UE     | UNDERGROUND ELECTRICAL                 |             |
| AL      | ALUMINUM                                | ELEC   | ELECTRIC ELECTRICAL              | IR   | INFRARED                                  | OL                        | OVERLOADS                                | UG     | UNDERGROUND UNIT HEATER                |             |
| ALT     | ALTERNATE                               | ELEV   | ELEVATOR                         | IN   | INTERLOCK                                 | OS                        | OCCUPANCY SENSOR                         | UH     | UNDERGROUND UNDERGROUND TELEPHONE      |             |
| AMP     | AMPERE                                  | EM     | EMERGENCY                        | IR   | INTERLOCK WITH                            | OR                        | OVERLOADS                                | UL     | UTILITY UNIT VENTILATOR OR ULTRAVIOLET |             |
| AMP     | AMPLIFIER                               | EMS    | ENERGY MANAGEMENT SYSTEM         | JBOX | JUNCTION BOX                              | PA                        | PUBLIC ADDRESS                           | UN     | UNDERGROUND UNDERGROUND                |             |
| ANN     | ANNUNCIATOR                             | EMT    | ELECTRICAL METAL TUBING          | KB   | KILOVOLT                                  | PE                        | PEDESTAL                                 | UTL    | UTILITY UNIT VENTILATOR OR ULTRAVIOLET |             |
| APPROX  | APPROXIMATELY                           | EQUIP  | EQUIPMENT                        | KV   | KILOVOLT                                  | PF                        | POWER FACTOR                             | UV     | ULTRAVIOLET                            |             |
| ADJSTAT | ADJUSTABLE                              | EHIC   | ELECTRIC WATER COOLER            | KVA  | KILOVOLT-AMPERE                           | PH                        | PHASE                                    | V      | VOLT                                   |             |
| ARCH    | ARCHITECT, ARCHITECTURAL                | EXIST  | EXISTING                         | KVAR | KILOVOLT-AMPERE REACTIVE                  | PI                        | PASSIVE INFRARED                         | VA     | VOLT-AMPERES                           |             |
| ATS     | AUTOMATIC TRANSFER SWITCH               | EDH    | EXHAUST                          | KWH  | KILOWATT HOUR                             | PIV                       | POTENTIAL TRANSFORMER (PANTULOOM GANTRY) | VDF    | VARIABLE FREQUENCY DRIVE               |             |
| AUTO    | AUTOMATIC                               | EDP    | EXHAUST PROOF                    | KW   | KILOWATT                                  | PV                        | POST INDICATING VALVE                    | VL     | VOLUME                                 |             |
| AUX     | AUXILIARY                               | FA     | FIRE ALARM                       | LAN  | LOCAL AREA NETWORK                        | PNL                       | PANEL                                    | VS     | VACUUM SENSOR                          |             |
| AV      | AUDIO VISUAL                            | FACP   | FIRE ALARM CONTROL PANEL         | LOC  | LOCATE OR LOCATION                        | PP                        | POWER POLE                               | W      | WATT                                   |             |
| AWG     | AMERICAN WIRE GAUGE                     | FBX    | FLOOR BOX (SEE SCHEDULE)         | LT   | LIGHT                                     | PR                        | PRIMARY                                  | WAP    | WIRELESS ACCESS POINT                  |             |
| BATT    | BATTERY                                 | FCU    | FAN COIL UNIT                    | LTG  | LIGHTING                                  | PRQJ                      | PRODUCTION                               | WBXX   | RECESSED WALL BOX (SEE SCHEDULE)       |             |
| BD      | BOARD                                   | FIXT   | FIXTURE                          | LTNG | LIGHTING                                  | PRV                       | POWER ROOF VENTILATOR                    | WBT    | WIRE BUSHING                           |             |
| BLDG    | BUILDING                                | FLR    | FLOOR                            | LTV  | LOW VOLTAGE                               | PT                        | POTENTIAL TRANSFORMER (PANTULOOM GANTRY) | VERT   | VERTICAL                               |             |
| BMS     | BUILDING MANAGEMENT SYSTEM              | FUR    | FLOOR FLOURESCENT                | MAX  | MAXIMUM                                   | PTZ                       | POLY VINYL CHLORIDE (CONDUIT)            | VFD    | VARIABLE FREQUENCY DRIVE               |             |
| C       | CIRCUIT                                 | FUSE   | FUSE                             | MAGS | MAGNETIC STARTER                          | PVC                       | POLY VINYL CHLORIDE (CONDUIT)            | W      | WATT                                   |             |
| CAB     | CABINET                                 | FNVR   | FULL VOLTAGE NON-REVERSING       | MC   | MOMENTARY CONTACT                         | PWR                       | POWER                                    | WAP    | WIRELESS ACCESS POINT                  |             |
| CAT     | CATALOG                                 | GA     | GAUGE                            | MC   | MOMENTARY CONTACT                         | QUAN                      | QUANTITY                                 | WBXX   | RECESSED WALL BOX (SEE SCHEDULE)       |             |
| CATV    | CABLE TELEVISION                        | GAL    | GALVANIZED                       | MCB  | MAIN CIRCUIT BREAKER                      | REC                       | RECEPTACLE                               | WBT    | WIRE BUSHING                           |             |
| CB      | CIRCUIT BREAKER                         | GALV   | GALVANIZED                       | MCC  | MOTOR CONTROL CENTER                      | REQ                       | REQUIRED                                 | WP     | WEATHERPROOF                           |             |
| CBX     | RECESSED CIRCULATING BOX (SEE SCHEDULE) | GEN    | GENERATOR                        | MCC  | MAN DISTRIBUTION CENTER                   | RNC                       | ROOF TOP UNIT                            | XFR    | TRANSFORMER                            |             |
| CCTV    | CLOSED CIRCUIT TELEVISION               | GF     | GROUND FAULT PROTECTOR           | MFC  | MAN FUSED DISCONNECT                      | RM                        | ROOM                                     | XFR    | TRANSFORMER                            |             |
| CKT     | CIRCUIT                                 | GFICP  | GROUND FAULT CIRCUIT INTERRUPTER | MFR  | MANUFACTURER                              | RMT                       | ROOM METAL CONDUIT                       | Y      | WYE-CONNECTED                          |             |
| CM      | CORNER MOUNT                            | GRP    | GROUNDING RIGID STEEL (CONDUIT)  | INT  | INTERFERE                                 | RTU                       | ROOF TOP UNIT                            |        |                                        |             |
| COMP    | COMPRESSOR                              | GND    | GROUND                           | INT  | INTERFERE                                 | SI                        | SHIELD                                   |        |                                        |             |
| COMB    | COMBINATION                             | GRS    | GALVANIZED RIGID STEEL (CONDUIT) | MIN  | MINIMUM                                   | SM                        | SIMILAR                                  |        |                                        |             |
| CONN    | CONNECTION                              | DYP BD | CONTROL PANEL                    | MIS  | MISCELLANEOUS                             | SN                        | SOLID NEUTRAL                            |        |                                        |             |
| CONT    | CONTINUOUS                              | CONTR  | CONSTRUCTION                     | MIS  | MISCELLANEOUS                             | SPR                       | SPEAKER                                  |        |                                        |             |
| CONTR   | CONTRACTOR                              | HOA    | HANDS-OFF AUTOMATIC              | MIS  | MISCELLANEOUS                             | SR                        | SURFACE RACEWAY                          |        |                                        |             |
| CP      | CIRCUIT BREAKER                         | HOA    | HANDS-OFF AUTOMATIC              | MIS  | MISCELLANEOUS                             | SS                        | STAINLESS STEEL                          |        |                                        |             |
| CT      | CATHODE RAY TUBE                        | HRZ    | HORIZONTAL                       | MSP  | MOTOR STARTER PANELBOARD                  | SSW                       | SELECTOR SWITCH                          |        |                                        |             |
| CTR     | CENTER                                  | HP     | HORSEPOWER                       | MTR  | MOTOR                                     | STB                       | STOP/START PUSHBUTTONS                   |        |                                        |             |
| CU      | COPPER                                  |        |                                  | MTR  | MOTOR                                     | STD                       | STANDARD                                 |        |                                        |             |

### CONVENTIONS LEGEND

|  |                              |                               |
|--|------------------------------|-------------------------------|
|  | NAME                         | SPACE TAG                     |
|  | REVISION TAG                 |                               |
|  | KEYNOTE TAG                  |                               |
|  | SECTION TAG                  |                               |
|  | DETAIL TAG                   |                               |
|  | ELEVATION TAG                |                               |
|  | EXISTING WORK                |                               |
|  | NEW WORK                     |                               |
|  | EXISTING ITEMS TO BE REMOVED |                               |
|  | PLAN NORTH                   |                               |
|  | GRID                         | COLUMN/GRID INDICATOR         |
|  | MATCH LINE INDICATOR         |                               |
|  | SHEET XXXXX                  | DETAIL/SECTION PLAN INDICATOR |

### SHEET IDENTIFICATION



### ELECTRICAL SYMBOL NOTES

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | THE LIGHTING FIXTURE TYPE IS INDICATED BY AN UPPER CASE LETTER. THE CIRCUIT DESIGNATION IS INDICATED BY A LOWER CASE LETTER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: LIGHTING FIXTURE TYPE "A2" IS CONNECTED TO CIRCUIT 12 AND CONTROLLED BY SWITCH "A".                                                                                                                                                                                                                         |
|  | EXIT LIGHTS: STEM INDICATES WALL MOUNTING. NO STEM INDICATES CEILING MOUNTING. SHADDED AREA INDICATES ILLUMINATED FACE(S). ARROW INDICATES DIRECTIONAL ARROW ON ILLUMINATED FACE(S). THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. EXAMPLE: THE WALL MOUNTED EXIT LIGHT TYPE "E" WITH SINGLE FACE AND DIRECTIONAL ARROW IS CONNECTED TO CIRCUIT 14.                                                                                                                                                       |
|  | DEVICES: THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER. THE SWITCH DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SPLIT DUPLEX RECEPTACLE IS CONNECTED TO CIRCUIT 16 AND ONE RECEPTACLE OUTLET IS CONTROLLED BY SWITCH "C".                                                                                                                                                                                                                                                                     |
|  | THE CONTROL DEVICE DESIGNATION IS INDICATED BY A LOWER CASE LETTER. EXAMPLE: SINGLE POLE SWITCH "D" TO CONTROL LIGHTING FIXTURES INDICATED BY "E".                                                                                                                                                                                                                                                                                                                                                            |
|  | SPECIAL RECEPT CONNECTIONS: THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT TO THE SYMBOL. SEE KEYNOTE FOR CONFIGURATION. EXAMPLE: 3 PHASE CONNECTION TO CIRCUITS 1, 3, 5.                                                                                                                                                                                                                                                                                                                       |
|  | MOTOR CONNECTIONS: THE MOTOR IS INDICATED BY A NUMBER WITHIN OR CHARACTERS ADJACENT TO THE MOTOR SYMBOL. THE CIRCUIT DESIGNATION IS INDICATED BY A NUMBER(S) ADJACENT TO THE SYMBOL. EXAMPLE: MOTOR SF-1, 3 PHASE CONNECTION TO CIRCUITS 2, 4, 6.                                                                                                                                                                                                                                                             |
|  | TRANSFORMERS: THE TRANSFORMER TYPE IS INDICATED BY A NUMBER FOLLOWING THE UPPER CASE LETTER "T". SEE THE SINGLE LINE DIAGRAM OR RISER FOR THE TRANSFORMER DESCRIPTION AND REQUIREMENTS. EXAMPLE: TRANSFORMER TYPE "T1".                                                                                                                                                                                                                                                                                       |
|  | PANELBOARDS: PANELBOARD DOORS MAY BE SHOWN TO INDICATE OPENING SIDE OF RECESSED PANELBOARDS. SEE PANELBOARD IDENTIFICATION FOR DESIGNATION CODES. CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION.                                                                                                                                                                                                                                                                                                      |
|  | HOME RUN TO BRANCH CIRCUIT PANELBOARD: THE PANELBOARD DESIGNATION IS SHOWN ADJACENT TO THE HOME RUN ARROW AS A NUMBER AND THE CIRCUIT DESIGNATION IS SHOWN AS THE DENOMINATOR. CIRCUIT BREAKER SIZES (AMPS/NUMBER OF POLES) ARE SHOWN IN THE PANELBOARD SCHEDULE WITH THE CORRESPONDING PANELBOARD AND CIRCUIT DESIGNATION. EXAMPLE: HOME RUN TO PANELBOARD L12, CIRCUITS 1, 3, 5. SYMBOL NOTATIONS: UPPER CASE LETTERS ADJACENT TO SYMBOLS INDICATE A UNIT TYPE. SEE APPROPRIATE SCHEDULE OR SPECIFICATIONS. |

### ELECTRICAL SYMBOL LEGEND

|  |                                                  |                           |                                                               |                           |                                                                                   |
|--|--------------------------------------------------|---------------------------|---------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------|
|  | HT AFF SYMBOL DESCRIPTION                        | HT AFF SYMBOL DESCRIPTION | HT AFF SYMBOL DESCRIPTION                                     | HT AFF SYMBOL DESCRIPTION |                                                                                   |
|  | AS NOTED SURFACE MOUNTED LIGHT (TYPE DENOTED)    |                           | AS NOTED RECEPT ON DROP CORD (DUPLEX SHOWN)                   |                           | CONDUIT CONCEALED IN WALL OR OVERHEAD                                             |
|  | AS NOTED FLOODLIGHT (TYPE DENOTED)               |                           | RECEPT ON CORD REEL (DUPLEX SHOWN)                            |                           | CONDUIT CONCEALED BELOW FLOOR                                                     |
|  | PER SCHED SURFACE LIGHT (TYPE DENOTED)           |                           | MULTI-OUTLET ASSEMBLY EQUIPMENT CONNECTION                    |                           | CONDUIT EXPOSED                                                                   |
|  | PENDANT OR HUNG LIGHT (TYPE DENOTED)             |                           | POWER POLE (OPEN OFFICE STYLE)                                |                           | CONDUIT TRANSITION UP                                                             |
|  | RECESSED LIGHT (TYPE DENOTED)                    |                           | JUNCTION BOX (WALL/FLOOR/CEILING)                             |                           | CONDUIT TRANSITION DOWN                                                           |
|  | TRACK LIGHT/FLOOD LIGHT (TYPES DENOTED)          |                           | PULL BOX                                                      |                           | CONDUIT STUBBED OUT                                                               |
|  | EMERGENCY BATTERY LIGHT (TYPE DENOTED)           |                           | CIRCUIT BREAKER PANEL                                         |                           | LOW VOLTAGE POWER WIRING                                                          |
|  | EXIT SIGN (TYPE DENOTED)                         |                           | LIFE SAFETY CIRCUIT BREAKER PANEL                             |                           | EXISTING CONDUIT                                                                  |
|  | LIGHT FIXTURE ON CRITICAL BRANCH                 |                           | CRITICAL CIRCUIT BREAKER PANEL                                |                           | UNDERGROUND ELECTRICAL                                                            |
|  | LIGHT ON CORD REEL (TYPE DENOTED)                |                           | EQUIPMENT CIRCUIT BREAKER PANEL                               |                           | UNDERGROUND HIGH VOLTAGE ELECTRICAL                                               |
|  | SPECIAL CABINET (TYPE DENOTED)                   |                           | POWER OR DISTRIBUTION PANEL                                   |                           | UNDERGROUND TELEPHONE                                                             |
|  | SINGLE POLE SWITCH                               |                           | SWITCHBOARD                                                   |                           | UNDERGROUND COMMUNICATIONS                                                        |
|  | 2 POLE SINGLE THROW SWITCH                       |                           | SPECIAL CABINET (TYPE DENOTED)                                |                           | UNDERGROUND CABLE (CATV OR CCTV)                                                  |
|  | 3-WAY SWITCH                                     |                           | TRANSFORMER (TYPE DENOTED)                                    |                           | UNDERGROUND FIBER OPTIC                                                           |
|  | 4-WAY SWITCH                                     |                           | GENERATOR (KVA DENOTED)                                       |                           | OVERHEAD ELECTRIC                                                                 |
|  | KEYED SWITCH                                     |                           | MOTOR                                                         |                           | OVERHEAD TELEPHONE                                                                |
|  | PILOT SWITCH                                     |                           | MAG. MOTOR STARTER                                            |                           | BRANCH CIRCUIT HOME RUN                                                           |
|  | DIMMER SWITCH                                    |                           | COMB. MOTOR STARTER (NON-FUSED)                               |                           | CABLE TRAY (TYPE DENOTED)                                                         |
|  | 3-WAY DIMMER SWITCH                              |                           | COMB. MOTOR STARTER (FUSED)                                   |                           | TELECOM. EQUIPMENT RACK (2-POST)                                                  |
|  | MOMENTARY CONTACT SWITCH                         |                           | SAFETY DISC. SW. (NON-FUSED)                                  |                           | TELECOM. EQUIPMENT RACK (4-POST)                                                  |
|  | TIMER SWITCH                                     |                           | SAFETY DISC. SW. (FUSED)                                      |                           | GROUNDING BUS BAR                                                                 |
|  | TIME DELAY SWITCH                                |                           | CONTACTOR                                                     |                           | CONDUIT SLEEVE (SIZE DENOTED)                                                     |
|  | FAN SPEED CONTROL                                |                           | BUS DUCT WITH PLUG-IN DISCONNECT (FUSED)                      |                           | TELEPHONE OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                |
|  | MOTOR HORSEPOWER RATED SWITCH                    |                           | VARIABLE FREQUENCY DRIVE                                      |                           | WALL TELEPHONE OUTLET                                                             |
|  | LOW-VOLTAGE SWITCH                               |                           | RELAY                                                         |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  | LOW-VOLTAGE DIMMING SWITCH                       |                           | ENCLOSED CIRCUIT BREAKER                                      |                           | COMBINATION VOICE / DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER) |
|  | MANUAL MTR. STR. (W/VERLOADS)                    |                           | OCCUPANCY SENSOR                                              |                           | TELECOM. EQUIPMENT RACK (4-POST)                                                  |
|  | DASH INDICATES MOUNTING ABOVE FINISHED COUNTER   |                           | PHOTOCELL/PHOTONSENSOR                                        |                           | GROUNDING BUS BAR                                                                 |
|  | SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER  |                           | HAND OR HAIR DRYER (SEE ARCH SPEC)                            |                           | CONDUIT SLEEVE (SIZE DENOTED)                                                     |
|  | SQUARE INDICATES MOUNTING ABOVE FINISHED COUNTER |                           | SOLENOID VALVE                                                |                           | TELEPHONE OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                |
|  | PUSH BUTTON                                      |                           | PUSH BUTTON                                                   |                           | WALL TELEPHONE OUTLET                                                             |
|  | POWER OPERATED DOOR ACTUATOR                     |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER) |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  | EMERGENCY POWER OFF PUSH BUTTON                  |                           | TELEVISION OUTLET                                             |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  | SPECIAL RECEPTACLE                               |                           | AUDIO VISUAL OUTLET                                           |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | OUTLET IN FLOOR (MICROPHONE SHOWN)                            |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | MULTI-SERVICE OUTLET                                          |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | SINGLE FACE CLOCK WALL MOUNTED                                |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | DOUBLE FACE CLOCK WALL MOUNTED                                |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | EQUIPOTENTIAL GROUND OUTLET                                   |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | BELL / CHIME / BUZZER                                         |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | SPEAKER                                                       |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | HORN TYPE SPEAKER                                             |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | VOLUME CONTROL                                                |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |
|  |                                                  |                           | ANTENNA                                                       |                           | DATA OUTLET (SLASH INDICATES MOUNTING ABOVE FINISHED COUNTER)                     |

### SHEET INDEX - ELECTRICAL

| SHEET # | SHEET NAME                                           |
|---------|------------------------------------------------------|
| E-001   | ELECTRICAL SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES |
| E-101   | LOWER LEVEL ELECTRICAL PLANS                         |

PROJECT TITLE

IVH

MALLOY LAUNDRY CHUTE

IDAS Project # 8890.00

Marshalltown, Iowa

ISSUES

| MARK       | DATE        | DESCRIPTION    |
|------------|-------------|----------------|
| ISSUE DATE | 02/22/2019  | DRAWN BY CRN   |
| PROJECT #  | 06180243.00 | CHECKED BY DLB |

SHEET TITLE

ELECTRICAL SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

SHEET NUMBER

E-001

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Architecture  
Engineering  
Planning



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ELECTRICAL PLANS**

SHEET NUMBER

**E-101**

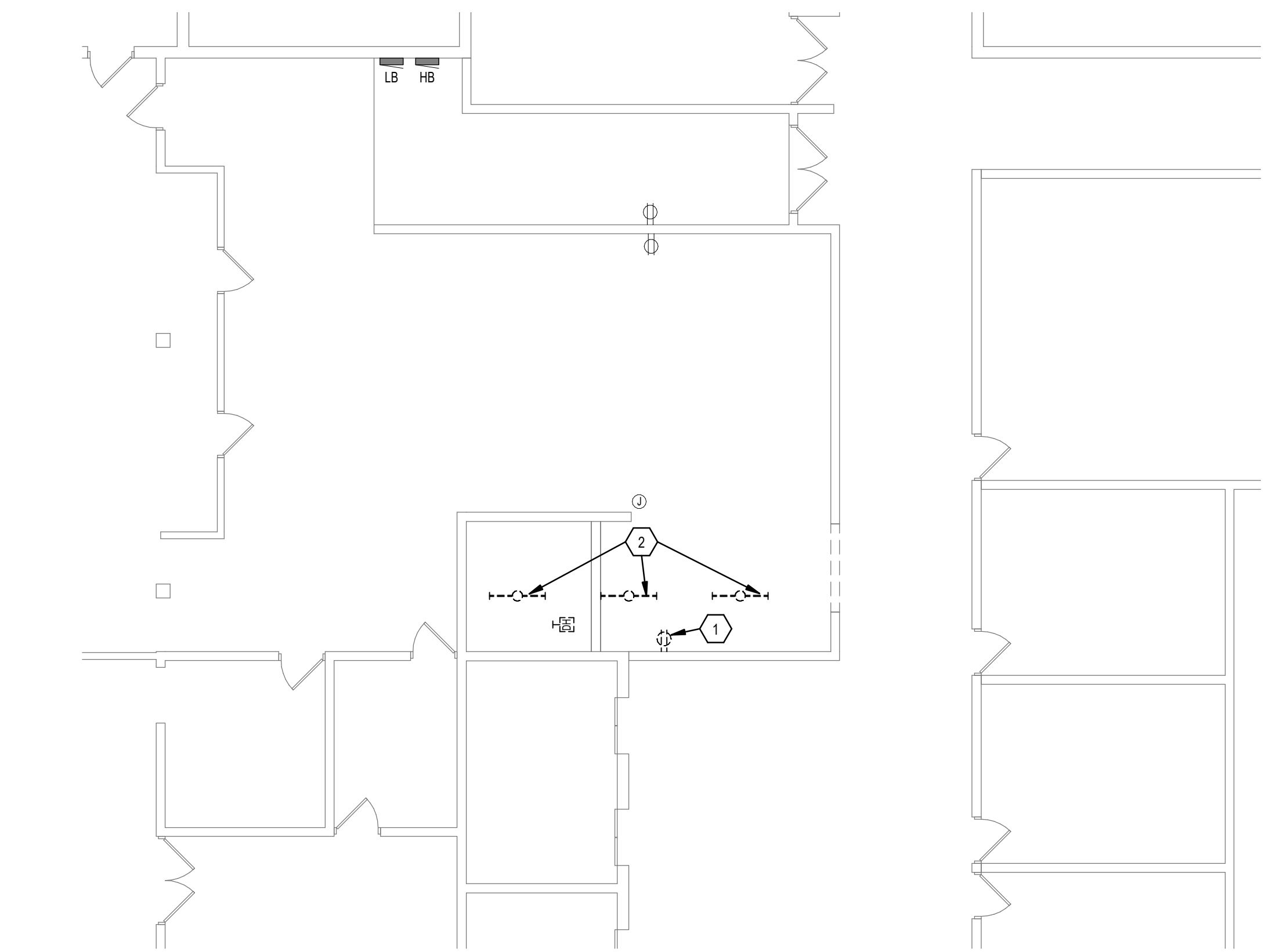
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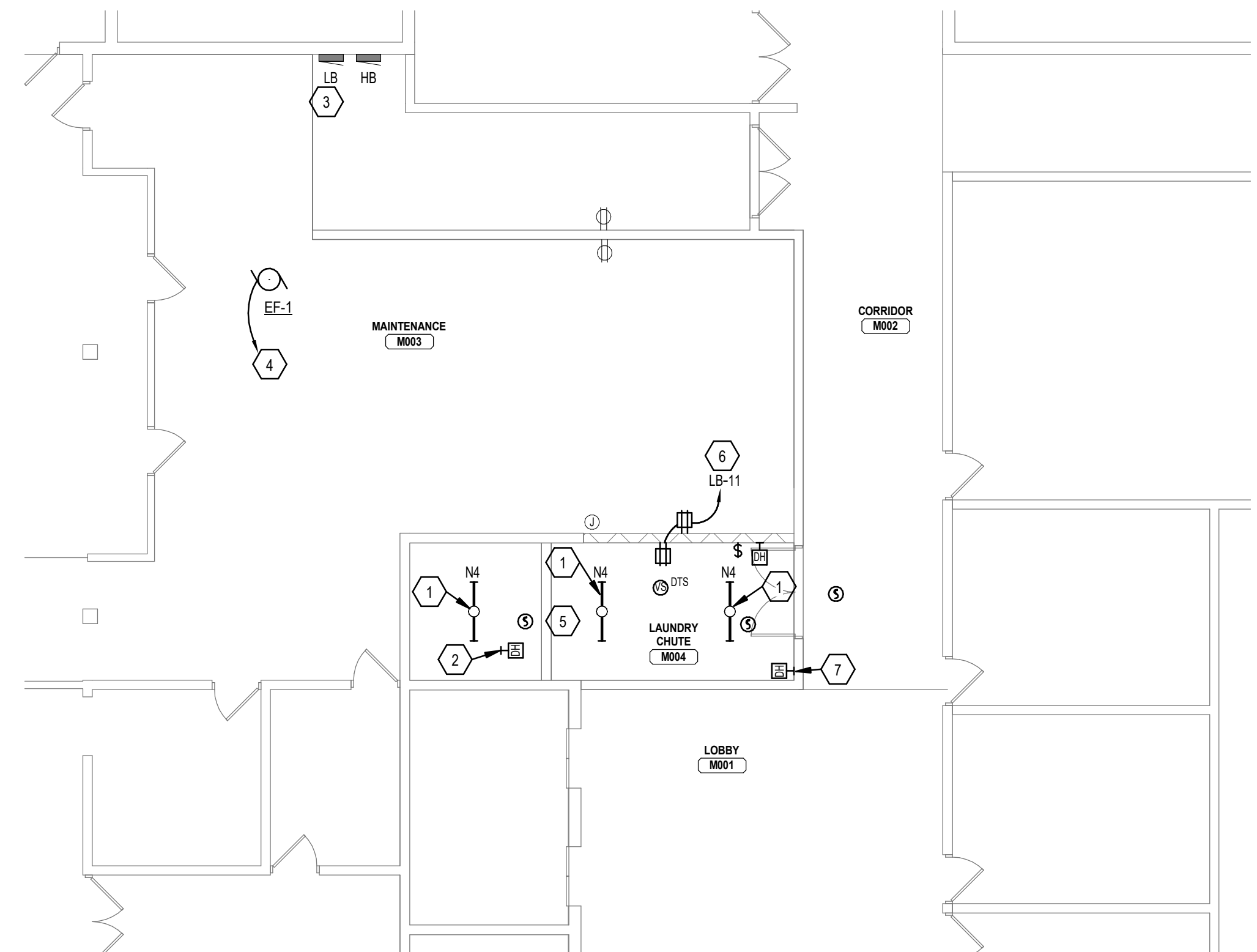
| KEY NOTES:                                                                                                                                                                                                       | ELECTRICAL PLAN |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. CHAIN HANG BOTTOM OF LIGHT FIXTURES IN ROOM AT 9'-0" AFF. COORDINATE EXACT LOCATIONS WITH NEW PIPING AND EXHAUST DUCTWORK. EXTEND EXISTING LIGHTING CIRCUIT TO NEW LIGHT FIXTURES, SWITCH AND VACANCY SENSOR. |                 |
| 2. PROVIDE NEW MAGNETIC HOLD OPEN ON LAUNDRY CHUTE DOOR. DOOR SHALL SHUT ON ALARM.                                                                                                                               |                 |
| 3. PROVIDE ONE NEW 15A, 1 POLE BREAKER AND ONE NEW 20A, 1 POLE BREAKER, IN EXISTING SQUARE D TYPE NQD PANELBOARD SPACES 5 AND 9. MATCH EXISTING PANELBOARD CHARACTERISTICS.                                      |                 |
| 4. PROVIDE POWER TO NEW EXHAUST FAN ECM MOTOR. MOTOR RATED TOGGLE SWITCH IS PROVIDED INTEGRAL TO UNIT BY DIVISION 23 FOR DISCONNECTING MEANS. PROVIDE NEW CIRCUIT FROM NEW 15A, 1 POLE BREAKER IN PANEL LB.      |                 |
| 5. CONNECT NEW FIRE ALARM DEVICES IN SPACE INTO EXISTING SIMPLEX FIRE ALARM SYSTEM.                                                                                                                              |                 |
| 6. PROVIDE CIRCUIT FROM NEW 20A, 1 POLE BREAKER IN PANEL LB.                                                                                                                                                     |                 |
| 7. PROVIDE CUSTOM ANGLED ARM BRACKET AND BOX EXTENSION ON SURFACE BOX AND CONDUIT FOR DOOR HOLD OPEN DOOR AT AN ANGLE. COORDINATE EXACT LOCATION OF DOOR HOLDER WITH GENERAL CONTRACTOR AND DOOR INSTALLATION.   |                 |

| LIGHTING FIXTURE SCHEDULE |              |                                                 |                                       |         |            |                |      |                  |         |                           |
|---------------------------|--------------|-------------------------------------------------|---------------------------------------|---------|------------|----------------|------|------------------|---------|---------------------------|
| TYPE                      | MANUFACTURER | CATALOG SERIES                                  | DESCRIPTION                           | VOLTAGE | MOUNTING   | BALLAST/DRIVER | LAMP | Luminaire Lumens | WATTAGE | EQUIVALENTS               |
| N4                        | EATON        | 4SNLED-LD5-37SL-LN-UNV-L835-CD1-UJ-AVC-CHAINSET | 4' LED STRIP, 3500K, CHAIN HANGER SET | 277 V   | CHAIN HANG | LED STANDARD   | LED  | 3809 lm          | 28 W    | SUBMIT FOR PRIOR APPROVAL |

| KEY NOTES:                                                                                                                      | DEMOLITION PLAN |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 1. REMOVE OUTLET AND CIRCUIT. PROVIDE COVERPLATE OVER EXISTING BACKBOX TO REMAIN.                                               |                 |
| 2. DISCONNECT CIRCUIT FROM LIGHT FIXTURES TO BE REMOVED. MAINTAIN EXISTING CIRCUIT IN SPACE TO EXTEND TO NEW LIGHTING FIXTURES. |                 |



**A2 LOWER LEVEL ELECTRICAL DEMOLITION PLAN**  
SCALE: 1/8" = 1'-0"



**A3 LOWER LEVEL ELECTRICAL PLAN**  
SCALE: 1/8" = 1'-0"

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