

SPECIFICATIONS

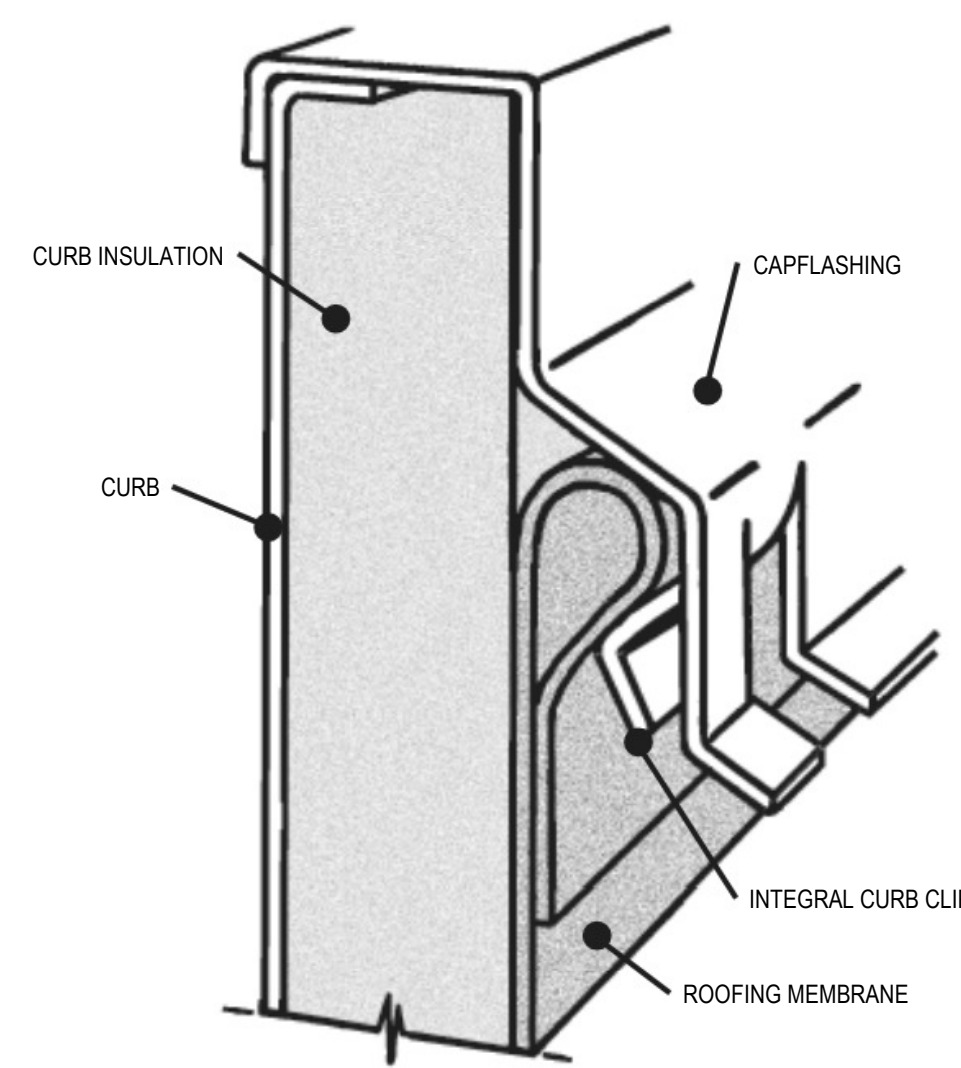
1. PART 1 - GENERAL
- 1.1 SUMMARY
- A. WORK INCLUDED: PROVIDE FACTORY-FABRICATED AUTOMATIC SMOKE VENT.
- 1.2 SUBMITTALS
- A. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA.
- B. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS INCLUDING PROFILES, ACCESSORIES, LOCATION, FUSIBLE LINKS, ADJACENT CONSTRUCTION INTERFACE, AND DIMENSIONS.
- C. WARRANTY: SUBMIT EXECUTED COPY OF MANUFACTURER'S STANDARD WARRANTY.
- 1.4 DELIVERY, STORAGE AND HANDLING
- A. DELIVER PRODUCTS IN MANUFACTURER'S ORIGINAL PACKAGING. STORE MATERIALS IN A DRY, PROTECTED, WELL-VENTED AREA. INSPECT PRODUCT UPON RECEIPT AND REPORT DAMAGED MATERIAL IMMEDIATELY TO DELIVERING CARRIER AND NOTE SUCH DAMAGE ON THE CARRIER'S FREIGHT BILL OF LADING.
- 1.5 WARRANTY
- A. MANUFACTURER'S WARRANTY: PROVIDE MANUFACTURER'S STANDARD WARRANTY. MATERIALS SHALL BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF FIVE YEARS FROM THE DATE OF PURCHASE. SHOULD A PART FAIL TO FUNCTION IN NORMAL USE WITHIN THIS PERIOD, MANUFACTURER SHALL FURNISH A NEW PART AT NO CHARGE.
- PART 2 - PRODUCTS
- 2.1 MANUFACTURER
- A. BASIS-OF-DESIGN MANUFACTURER: TYPE DSH AUTOMATIC ROOF SMOKE VENT BY THE BILCO COMPANY.
- 2.2 AUTOMATIC ROOF FIRE VENT
- A. FURNISH AND INSTALL WHERE INDICATED ON PLANS METAL FIRE VENT TYPE DSH, SIZE: WIDTH 66" x LENGTH 144". LENGTH DENOTES HINGE SIDE. THE ROOF FIRE VENT SHALL BE DOUBLE LEAF AND PREASSEMBLED FROM THE MANUFACTURER.
- B. PERFORMANCE CHARACTERISTICS:
- VENT SHALL BE UL LISTED. COMPLY WITH UL 793 AND UL 790 CLASS A (BURNING BRAND TEST).
 - OPERATION: VENT COVERS SHALL OPEN SIMULTANEOUSLY AGAINST A 10 PSF SNOW/WIND LOAD WHEN LATCH IS MANUALLY RELEASED OR WHEN HEAT BREAKS THE UL LISTED FUSIBLE LINK. OPENING SHALL BE IN A CONTROLLED MANNER TO AVOID DAMAGE TO SURROUNDING ROOF SURFACES.
 - LATCH OPERATION: WHEN HEAT PARTS THE UL LISTED FUSIBLE LINK, THE LATCH SHALL RELEASE INSTANTANEOUSLY, ALLOWING VENT COVER TO OPEN. THE LATCH SHALL BE DESIGNED FOR EASY RESETTING. AFTER A FIRE OR TEST, SO THAT THE COVER CANNOT BE LATCHED CLOSED UNLESS THE MECHANISM HAS BEEN RESET PROPERLY. MANUFACTURER SHALL PROVIDE INSTRUCTIONS FOR RESETTING THE LATCH WITH EACH UNIT. LATCH MECHANISM SHALL HOLD THE COVERS IN THE CLOSED POSITION WITHOUT OVERSTRESSING THE FUSIBLE LINK AND WITHSTAND 90 PSF WIND UPLIFT FORCES ACTING ON THE COVERS.
 - COVERS SHALL BE REINFORCED TO SUPPORT A MINIMUM LIVE LOAD OF 40 PSF WITH A MAXIMUM DEFLECTION OF 1/150TH OF THE SPAN OR 20 PSF WIND UPLIFT.
 - ENTIRE ROOF FIRE VENT SHALL BE WEATHER TIGHT WITH FULLY WELDED CORNER JOINTS ON COVER AND CURB.
- C. COVERS: SHALL BE 11 GAUGE ALUMINUM WITH A 3" BEADED FLANGE WITH FORMED REINFORCING MEMBERS.
- D. COVER INSULATION: SHALL BE FIBERGLASS OF 1" THICKNESS, FULLY COVERED AND PROTECTED BY A METAL LINER 18 GAUGE ALUMINUM.
- E. CURB: SHALL BE 12" IN HEIGHT AND OF 11 GAUGE ALUMINUM. CURBS SHALL BE FORMED WITH A 3-1/2" FLANGE WITH 7/16" HOLES PROVIDED FOR SECURING TO ROOF DECK. CURB SHALL BE EQUIPPED WITH INTEGRAL METAL CAPFLASHING OF THE SAME GAUGE AND MATERIAL AS THE CURB AND FEATURE THE BILCO® FLASHING SYSTEM INCLUDING STAMPED TABS, 6" (153MM) ON CENTER, TO BE BENT INWARD TO HOLD SINGLE-PLY ROOFING MEMBRANE SECURELY IN PLACE. CURB SHALL HAVE A HEAVY EXTRUDED EPDM RUBBER GASKET THAT IS MECHANICALLY FASTENED TO THE TOP OF THE CURB TO ASSURE A CONTINUOUS SEAL WHEN COMPRESSED BY THE COVERS.
- F. CURB INSULATION: SHALL BE RIGID, HIGH-DENSITY FIBERBOARD OF 1" THICKNESS ON THE OUTSIDE OF CURB.
- G. LIFTING MECHANISMS: MANUFACTURER SHALL PROVIDE HIGH PERFORMANCE GAS SPRING OPERATORS TO OPEN THE COVERS AGAINST A SNOW/WIND LOAD. GAS SPRINGS SHALL AUTOMATICALLY LOCK COVERS IN THE FULLY OPEN POSITION. A RELEASE MECHANISM SHALL BE PROVIDED TO ALLOW COVERS TO BE CLOSED. GAS SPRINGS SHALL HAVE INTEGRAL DAMPERS TO ASSURE A CONTROLLED RATE OF COVER OPENING AND HAVE A CYCLIC DURABILITY OF 20,000 CYCLES.
- H. LATCH MECHANISM: SHALL BE HOLD/RELEASE MECHANISM WITH A SEPARATE LATCHING POINT FOR EACH COVER CONTROLLED BY A SINGLE UL LISTED 165°F FUSIBLE LINK. FUSIBLE LINK SHALL BE CURB MOUNTED ON A NON-HINGED END TO ALLOW THE LATCHING MECHANISM TO BE EASILY RESET FROM THE ROOF LEVEL.
- I. HARDWARE
- HEAVY PINTLE HINGES SHALL BE PROVIDED.
 - GAS SPRINGS HAVE A POWDER COATED OUTER TUBE AND CHROMATE PLATED INNER ROD. ALL OTHER HARDWARE IS ZINC PLATED/CHROMATE SEALED OR GALVANIZED STEEL.
 - COVER HARDWARE SHALL BE BOLTED INTO HEAVY GAUGE CHANNEL REINFORCING WELDED TO THE UNDERSIDE OF THE COVER AND CONCEALED WITHIN THE INSULATION SPACE.
 - MANUAL PULL RELEASE CABLES: INTERIOR AND EXTERIOR CABLES WITH RED VINYL GRIPS SHALL BE PROVIDED AND ALLOW THE UNIT TO BE OPENED WITHOUT DISTURBING THE FUSIBLE LINK.
- K. FINISHES: FACTORY FINISH SHALL BE MILL FINISH ALUMINUM.
- PART 3 - EXECUTION
- 3.1 EXAMINATION
- A. EXAMINE SUBSTRATES AND OPENINGS FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 3.2 INSTALLATION
- A. INSTALL PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPROVED SUBMITTALS. LOCATE UNITS LEVEL, PLUMB, AND IN PROPER ALIGNMENT WITH ADJACENT WORK.
- TEST UNITS FOR PROPER FUNCTION AND ADJUST UNTIL PROPER OPERATION IS ACHIEVED.
 - TEST FUSIBLE LINK AND INSTALL REPLACEMENT FUSIBLE LINK AFTER TESTING.
 - REPAIR FINISHES DAMAGED DURING INSTALLATION.
 - RESTORE FINISHES SO NO EVIDENCE REMAINS OF CORRECTIVE WORK.
- 3.3 ADJUSTING AND CLEANING
- A. CLEAN EXPOSED SURFACES USING METHODS ACCEPTABLE TO THE MANUFACTURER WHICH WILL NOT DAMAGE FINISH.

SMOKE VENT SCHEDULE

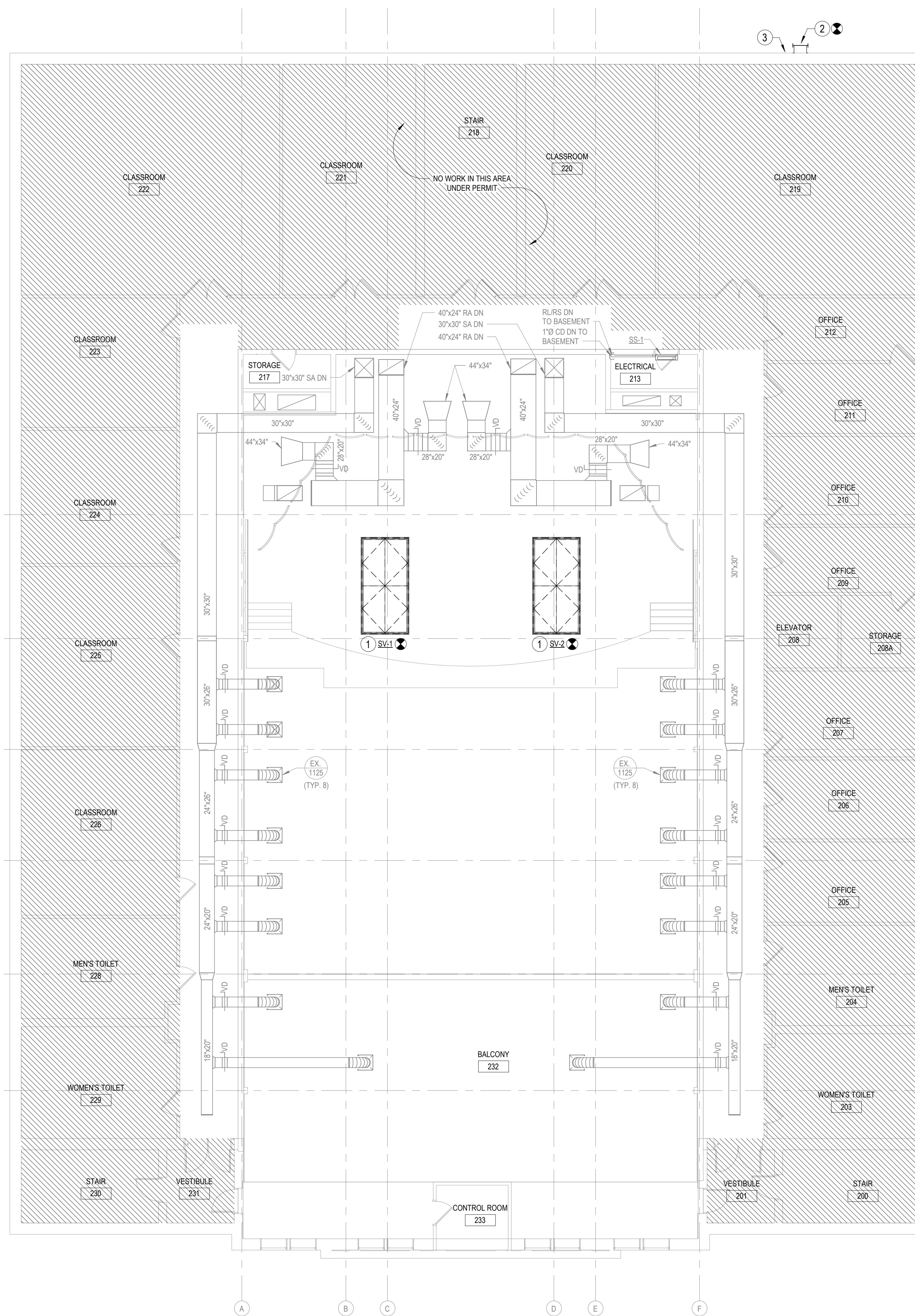
DESIGNATION	SERVICE	TYPE	SIZE (IN x IN)	WEIGHT (LBS)	BASIS OF DESIGN	REMARKS
SV-1	STAGE 122	AUTOMATIC	66 x 144	800	BILCO - DSH66144B	1, 2, 3, 4, 5, 6, 7, 8
SV-2	STAGE 122	AUTOMATIC	66 x 144	800	BILCO - DSH66144B	1, 2, 3, 4, 5, 6, 7, 8

REMARKS:

- VENT MUST AUTOMATICALLY OPEN UPON THE MELTING OF A UL-LISTED FUSIBLE LINK AT 165°F.
- ASSEMBLY SHALL BE UL-LISTED.
- FUSIBLE LINK SHALL BE ABLE TO BE RESET FROM ROOF LEVEL.
- VENT SHALL BE RATED TO OPEN UNDER THE INFLUENCE OF SNOW ACCUMULATION OR HIGH WIND CONDITIONS.
- PROVIDE VENT THAT IS FULLY INSULATED AND GASKETED.
- PROVIDE ALUMINUM CONSTRUCTION OF CURB AND VENT.
- PROVIDE WITH HANDLES FOR MANUAL OPERATION FROM ROOF LEVEL AND BELOW.
- VENT SHALL BE SUPPLIED WITH INTEGRAL ROOF CURB.



2 FLASHING DETAIL
SCALE: N.T.S.



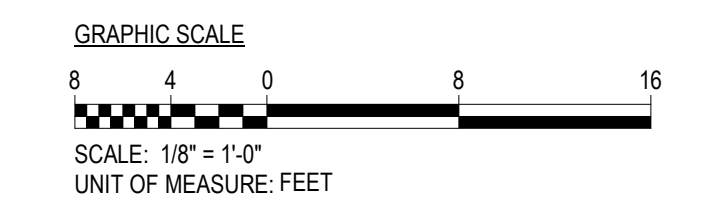
1 MECHANICAL FLOOR PLAN - LEVEL 02
SCALE: 1/8" = 1'-0"

FIXED LADDER NOTES

- CONTRACTOR TO PROVIDE A SINGLE FIXED STEEL ROOF ACCESS LADDER WITH WALK-THROUGH HANDRAILS, SUPPORTED FROM EXISTING EXTERIOR BUILDING WALL. LADDER DESIGN SHALL BE COMPLIANT WITH 2018 NC BUILDING CODES AND CURRENT OSHA STANDARDS. LADDER SHALL NOT BE INSTALLED WITH SAFETY CAGE.
- PROVIDE WITH FALL ARREST SYSTEM COMPLIANT WITH OSHA STANDARD 3124:
- SAFETY DEVICE MUST BE ABLE TO WITHSTAND, WITHOUT FAILURE, A DROP TEST CONSISTING OF A 500-POUND WEIGHT DROPPING 18 INCHES.
 - ALL SAFETY DEVICES MUST PERMIT THE WORKER TO ASCEND OR DESCEND WITHOUT CONTINUALLY HAVING TO HOLD, PUSH OR PULL ANY PART OF THE DEVICE, LEAVING BOTH HANDS FREE FOR CLIMBING.
 - ALL SAFETY DEVICES MUST BE ACTIVATED WITHIN 2 FEET AFTER A FALL OCCURS AND LIMIT THE DESCENDING VELOCITY OF AN EMPLOYEE TO 7 FEET/SECOND OR LESS.
- LADDER SHALL BE MAINTAIN REQUIRED DISTANCES FROM EXISTING PRECAST DECORATIVE PANELS, PROVIDE WALKING PLATFORM WITH HANDRAILS BETWEEN FIXED LADDER AND ROOF OVER PARAPET WALL. MANUFACTURER DESIGN & INSTALLATION DRAWINGS SHALL BE APPROVED BY STRUCTURAL ENGINEER PRIOR TO FABRICATION.

SHEET NOTES

- NEW AUTOMATIC SMOKE VENT INSTALLED ON EXISTING ROOF. FLASH CURB INTO EXISTING ROOF MEMBRANE.
- LOCATION FOR NEW FIXED ROOF ACCESS LADDER WITH WALK-THROUGH HANDRAILS. LADDER DESIGN TO BE PROVIDED BY LADDER FABRICATOR. CONTRACTOR TO PROVIDE REQUIRED DIMENSIONS AND COORDINATION. SEE LADDER NOTES FOR MORE INFORMATION. INSTALL LADDER BETWEEN EXISTING WINDOWS WITH REQUIRED CLEARANCES. PROVIDE LADDER GUARD AT BASE.
- RELOCATE EXISTING EXTERIOR FLOOD LIGHT AT THIRD FLOOR LEVEL ADJACENT TO NEW FIXED LADDER. PATCH EXISTING LOCATION TO MATCH SURROUNDINGS.



CONSTRUCTION DOCUMENTS

REV	DESCRIPTION	DATE	APPROVED

REVISIONS

THIS DRAWING AND ALL COPIES THEREOF IS THE PROPERTY OF RMF ENGINEERING, INC. THIS DRAWING MAY NOT BE USED OR REPRODUCED WITHIN ANY COMPUTER ENVIRONMENT OR BY ANY PRINT MEDIA FORMAT WITHOUT THE WRITTEN CONSENT OF RMF ENGINEERING, INC.

DESIGNED BY: LR DATE: 05/12/2020
 CHECKED BY: LR RMF JOB NO.: 220031.AD
 PROJ. MGR.: JIT CLIENT JOB #:

RMF ENGINEERING, INC.
8081 ARCO CORPORATE DRIVE
RALEIGH, NC 27617
P: 919.941.9876 www.rmf.com

05/12/2020

HOBSON PERFORMANCE CENTER SMOKE EVACUATION



MECHANICAL FLOOR PLANS, SCHEDULES & SPECIFICATIONS

rmf ENGINEERING, INC.
8081 ARCO CORPORATE DRIVE
RALEIGH, NC 27617
P: 919.941.9876 www.rmf.com

M100

C:\Revit Projects 2018\220031.AO_MEP_Central_18_RMF_RMF_LukeRichards.rvt 5/12/2020 6:29:20 PM