ATRIUM AREA: FIRST FLOOR

- O HALL BETWEEN SMOKE DOORS AT KITCHEN AND MAIN STAIRWAY
- O MAIN DINING ROOM O PRIVATE DINING
- O FRONT AND BACK FOYERS O CENTRAL LOUNGE
- O CLOSET UNDER STAIRS O HALL TO MEDIA ROOM SECOND FLOOR
- O HALL BETWEEN SMOKE DOORS AT ELEVATOR AND AT MULTIPURPOSE
- O MULTIPURPOSE ROOM
- O READING ROOM O TV ROOM
- O PC ROOM THIRD FLOOR O CORRIDOR AROUND ATRIUM BETWEEN
- SMOKE DOORS FOURTH FLOOR
- SMOKE DOORS WHEN ANY SINGLE SMOKE DETECTOR IN THE ATRIUM AREAS IS TRIPPED
- THE SMOKE EVACUATION SYSTEMS IS ACTIVATED AS FOLLOWS. • A GENERAL FIRE ALARM IS ACTIVATED.

O CORRIDOR AROUND ATRIUM BETWEEN

- THE TWO SETS OF SLIDING DOORS AT THE FRONT FOYER 150 OPEN TO PROVIDE MAKEUP AIR. TWO SETS OF DOUBLE SWINGING EXTERIOR DOORS AT REAR
- FOYER 156 OPEN TO PROVIDE MAKEUP AIR. MOTORIZED DAMPER IN THE TV ROOM FOR GRAVITY MAKEUP
- AIR OPEN. DOUBLE SWINGING EXTERIOR DOORS NEAR THE PRIVATE
- DINING 170 OPEN PROVIDING MAKEUP AIR. • SSF-1 LOCATED AT THE KITCHEN MECHANICAL WELL STARTS.
- A MOTORIZED DAMPER IN THE DUCTWORK FOR SSF-1 OPENS. SSF-1 PROVIDES 5,000 CFM OF MAKEUP AIR TO THE MULTIPURPOSE ROOM.
- TWO SEF-1 FANS LOCATED AT THE CUPOLA START.

ATRIUM SMOKE CONTROL OPERATING SEQUENCE

MECHANICAL CONTRACTOR:

SEE MECHANICAL EQUIPMENT SCHEDULE.

ELECTRICAL CONTRACTOR: ITEMS LISTED UNDER EACH SUBCONTRACTOR TO BE PROVIDED & INSTALLED BY THAT CONTRACTOR. ALL LINE VOLTAGE WIRING & CIRCUITING SHOWN ON ATRIUM SMOKE CONTROL

SCHEMATIC IS BY ELECTRICAL CONTRACTOR. AUTOMATIC DOOR OPENER - AUTOMATIC OPENING DEVICE FOR DOORS AS INDICATED ON DRAWINGS. PROVIDE CONTACT AS REQUIRED FOR TIE-IN TO ATRIUM SMOKE REMOVAL SYSTEM. PROVIDE LATCHING DEVICES WHERE REQUIRED. ACTIVATE BOTH DOORS ON ALARM FROM ATRIUM FIRE DETECTION SYSTEM.

RELAYS - R-1 THRU R-8 SPST, NO. 24V COIL. 10 AMP 110V CONTACTS. HONEYWELL R4222. R-2/R3 SPST, NC. 24V COIL. 10 AMP, 110V CONTACTS. HONEYWELL R4222B1082.

WHEN A SMOKE DETECTOR IN THE ATRIUM AREA ACTIVATES A SIGNAL IS SENT TO THE FIRE ALARM CONTROL PANEL (FACP).

THE (FACP) SENDS A 24v DC SIGNAL TO RELAYS, R-1 THRU R-8.

RELAYS R-1 THRU R-5 ACTIVATE THE DOOR OPENERS FOR FIVE SETS OF DOUBLE DOORS -TWO AT THE ENTRANCE FOYER, TWO AT THE REAR FOYER, AND ONE NEAR THE PRIVATE DINING ROOM.

RELAY R-6 OPENS SSF-1 OUTSIDE AIR DAMPER.

RELAY R-7 ACTIVATES THE ATRIUM SMOKE FANS (SSF-1). R-7 IS JUST BELOW THE SSF-1 MAGNETIC STARTER.

RELAY R-8 ACTIVATES THE TWO ATRIUM SMOKE FANS (SEF-1). R-8 IS JUST BELOW THE SEF-1 MAGNETIC STARTER.

RELAY R-9 OPENS THE OUTSIDE AIR MOTORIZED DAMPERS IN THE 2ND FLOOR TV ROOM.

FIRE SPRINKLER CONTRACTOR:

SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13 AND 13R AS SPECIFIED ON COVER SHEET AND ALL JURISDICTIONS HAVING AUTHORITY.

FIRE ALARM CONTRACTOR:

DAMPER

DOOR 150

FIRE ALARM PANEL AND DETECTORS - SEPARATE ATRIUM ZONE. PROVIDE SIGNAL TO CLOSE RELAY R-1-R-8 ON ACTUATION OF ANY ATRIUM DETECTORS. ALL DETAILS PER NFPA 72.

SEF-1-1

DOOR 156

120V R1 120V R2 120V R3 120V R4 120V R5

SEF-1-2

DOOR 156

(F) SEF-1-3

DOOR 171

LOAD RELAY CONTROL SEQUENCE R1 FOYER 150 FRONT DOOR DOOR OPENS R2 FOYER 150 FRONT DOOR DOOR OPENS R3 FOYER 156 REAR DOOR DOOR OPENS R4 FOYER 156 REAR DOOR DOOR OPENS R5 DINING 171 DOOR DOOR OPENS R6 SSF-1 CNTL DAMPER OPENS TO START/RUN R7 SSF-1 SUPPLY FAN R8 SEF-1 FANS TO START/RUN R9 2ND FLOOR TV ROOM MAKE-UP AIR CNTL DAMPER OPENS

FIRE

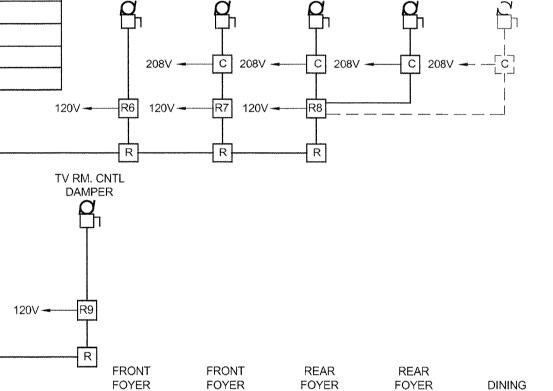
SPRINKLER

FLOW-

ATRIUM // SMOKE

SEE DETAIL 5/SC2.1

CONTROL PANEL



SSF-1

DOOR 150

ATRIUM SMOKE CONTROL SCHEMATIC

SCALE: N.T.S.

WHEN ANY SINGLE ATRIUM AREA

SMOKE DETECTOR IS ACTIVATED, THE ATRIUM SMOKE CONTROL PANEL SHALL AUTOMATICALLY ACTIVATE ALL

R1, R2, R3, R4, R5, R6, R7, R8 AND R9

DISPLAYED AT THE ATRIUM SMOKE

CONTROL PANEL VIA THE FDX-008

FAN/DAMPER CONTROL MODULES.

ATRIUM SMOKE DETECTOR

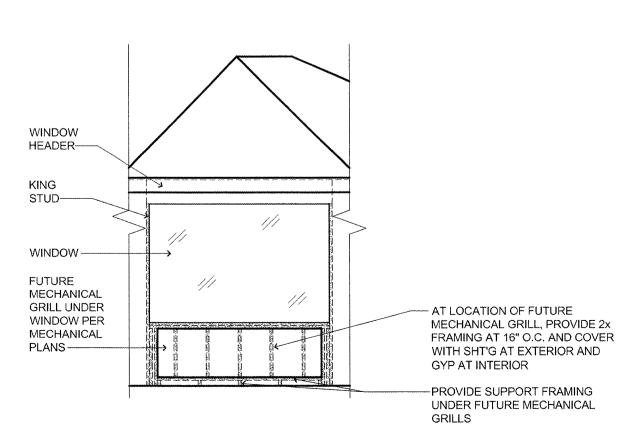
APPLICABLE CODES BY ALARM

COIL TO FACP ADVISE

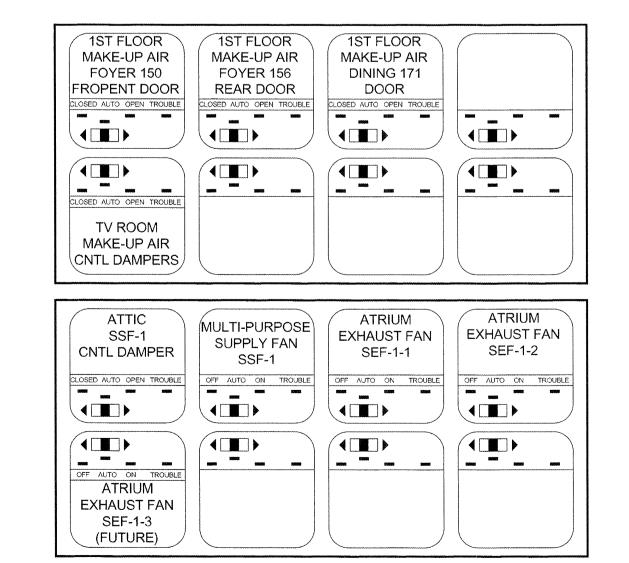
CONTRACTOR

RELAYS VIA THE ADDRESSABLE RELAY MODULES SHOWN. THE STATUS OF ALL CONTROL RELAYS FOR THE DAMPERS AND FANS SHALL BE

T:/16ELECT/910SMKCNTRL/ATRIUM SMOKE CONTRO



CUPOLA MECHANICAL WELL (WINDOW FRAMING AT FUTURE EQUIPMENT) T:/06WD&PLS/110FRAMG/06110240



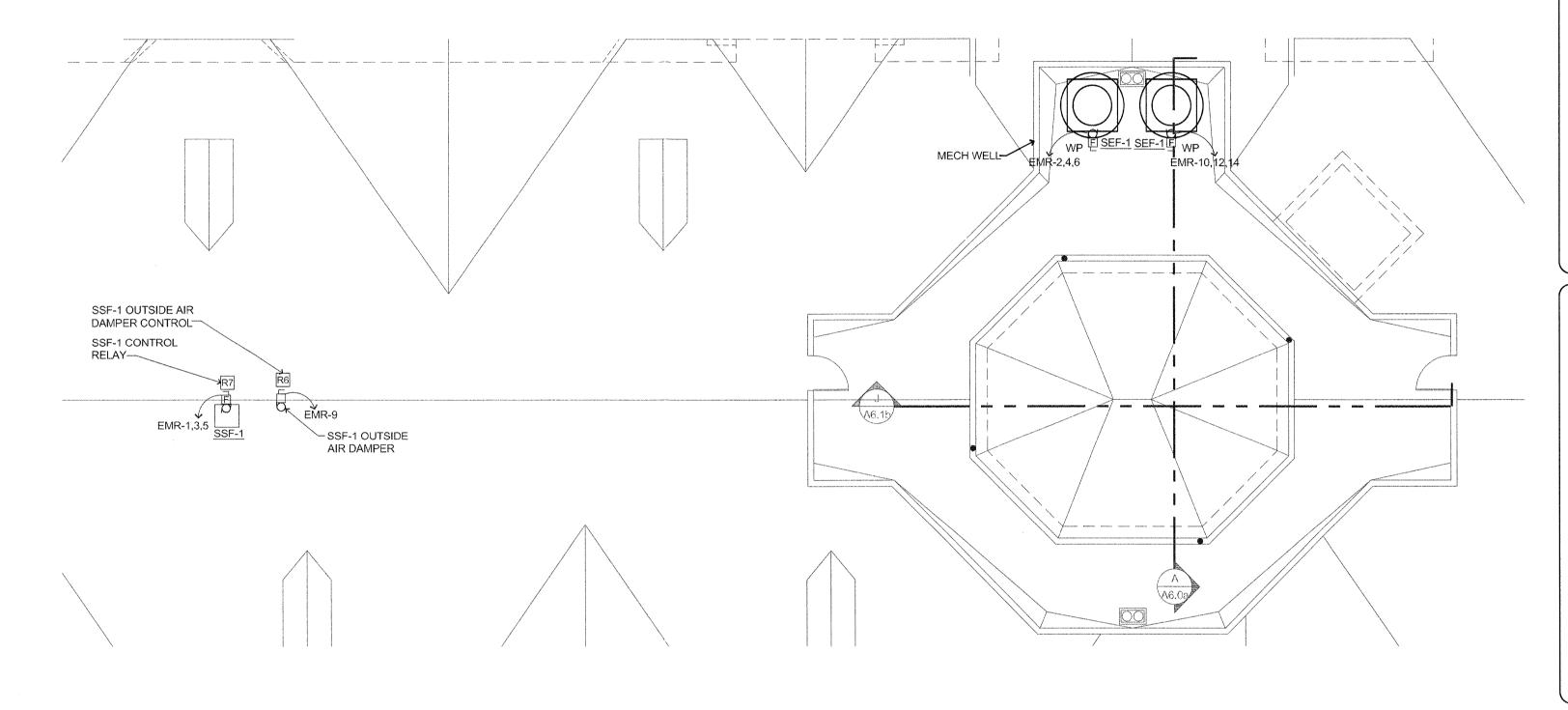
FAN / DAMPER PANEL CONTROL MODULES T:/16ELECT/910SMKCNTRL/FAN DAMPER CONTROL

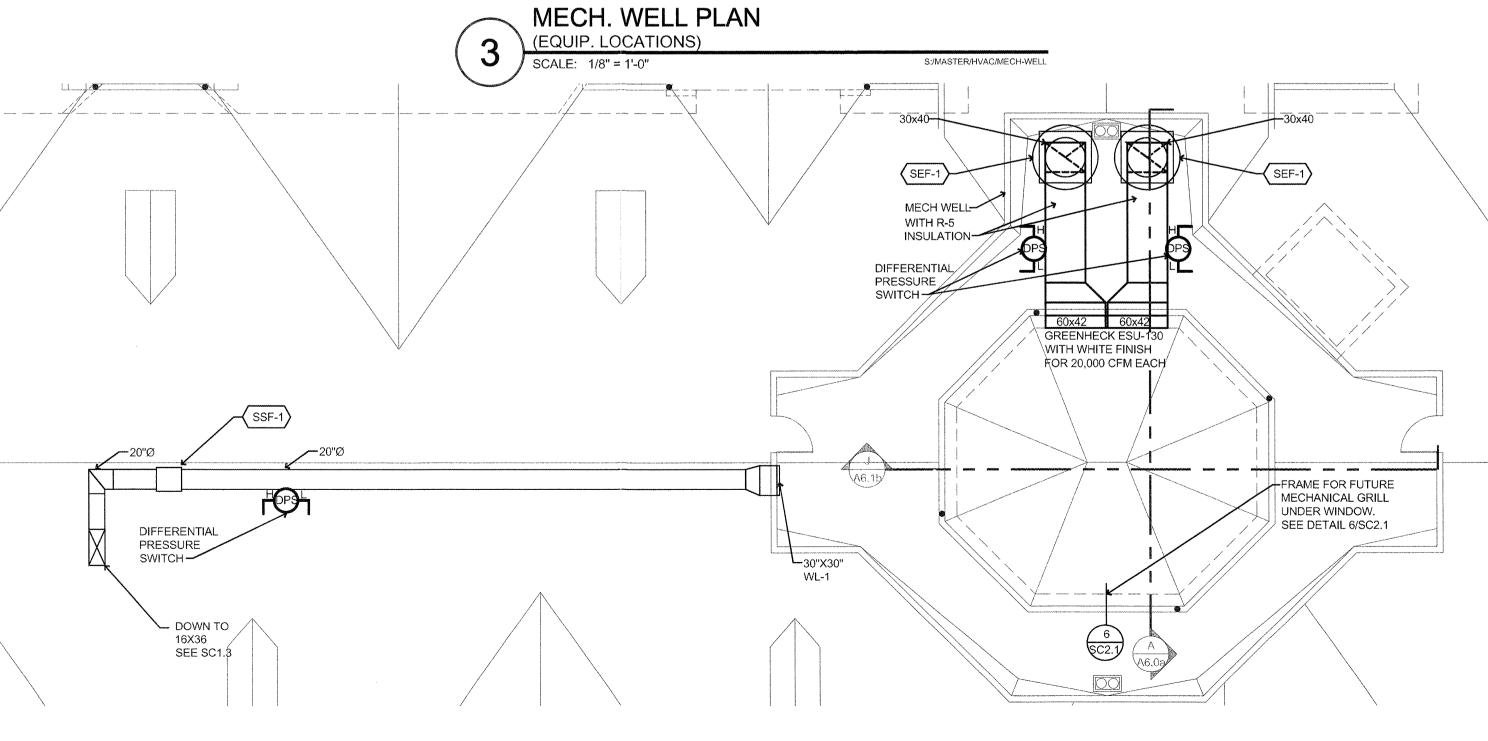
NOTE:

PENETRATIONS OF AREA SEPARATION WALLS SHALL BE PROTECTED WITH THROUGH PENETRATION FIRE STOPS AND MEMBRANE PENETRATION FIRE STOPS.

ALL WIRING REGARDLESS OF VOLTAGE SHALL BE FULLY ENCLOSED WITHIN CONTINUOUS RACEWAY.

EQUIPMENT SCHEDULE		
DESIG.	DESCRIPTION	ELECTRICAL
SEF-1	WEATHERPROOF UTILITY FAN (SMOKE RATED) ON ROOF CURB: 20,000 CFM @ 0.75" S.P. GREENHECK 420-75 CUBE BELT DRIVE UPBLAST CENTRIFUGAL FAN. PROVIDE WITH 14" HIGH FACTORY CURB. UL SMOKE RATED WITH BACKDRAFT DAMPER.	208V/3Ø 7-1/2 HP
SSF-1	BELT DRIVE IN-LINE SUPPLY FAN: 5,000 CFM @ 1.5" ESP WITH WEATHER HOUSING. GREENHECK BSQ-180.	208V/3Ø 3 HP





MECH. WELL PLAN (EQUIP. LOCATIONS) S:/MASTER/HVAC/MECH-WELL SCALE: 1/8" = 1'-0"

DENCI AINE 04103 POR RETIREMEN 802 OCEAN AVE. P

DATE 8/28/2015 REVISED DATE <u>/1</u> 9/22/2015

SHEET