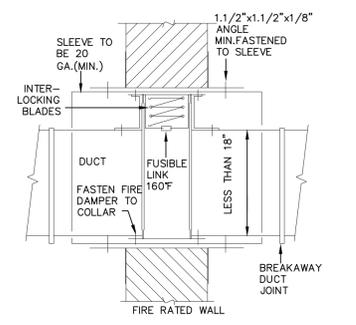
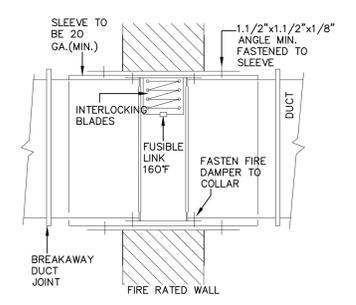


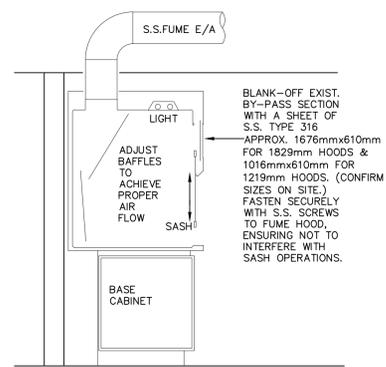
on sa **DILLON CONSULTING**
 Dillon, O'Neill, Scriven
 7071 Bayers Road, Suite 2001, Halifax, NS B3L 2C2
 p: 902.429.0701 f: 902.429.9729 w: www.dillon.ca
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 9 Tamarack Terrace, Moncton, NB E1A 5R1
 p: 506-883-8731



01 VERTICAL FIRE DAMPER
 H5 SCALE: N.T.S. (DUCTS LESS THAN 18")

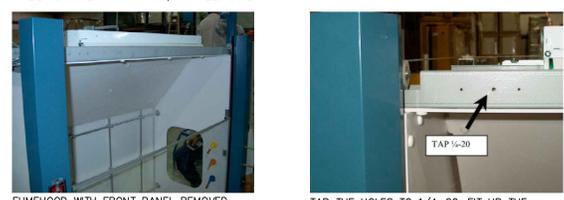


02 VERTICAL FIRE DAMPER
 H5 SCALE: N.T.S. (DUCTS LARGER THAN 18")

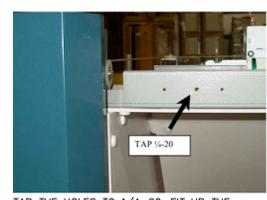


03 FUMEHOOD MODIFICATIONS
 H5 SCALE: N.T.S.

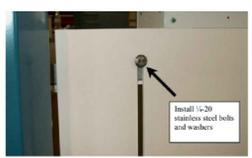
FIELD INSTALLATION INSTRUCTIONS:
 THE ADJUSTABLE BLANK OFF PLATE SHALL BE S.S. TYPE 316 STAINLESS AND CAN EITHER BE PURCHASED FROM SUPPLIER BY THE CONTRACTOR, OR FIELD BUILT.



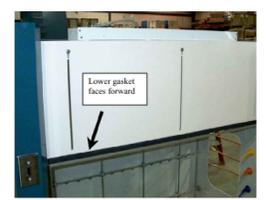
FUMEHOOD WITH FRONT PANEL REMOVED.



TAP THE HOLES TO 1/4"-20. FIT UP THE PANEL TO DETERMINE WHICH ONES NEED TAPPING.



INSTALL THE PANEL IN THE LOWERMOST POSITION. VAV CONTRACTOR MAY ADJUST TO ALLOW FOR MINIMUM FLOW REQUIREMENTS.



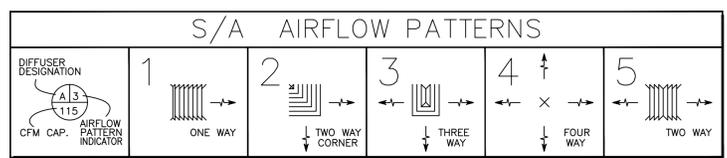
COMPLETED INSTALLATION. NOTE THAT THE GASKET ON THE LOWER EDGE FACES FORWARD.

AIR VALVE SCHEDULE							
DESIG.	MANUF.	MODEL	INLET DIA.	OUTLET DIA.	L/s RANGE		COMMENTS
					MIN.	MAX.	
AV1	PHOENIX CONTROLS	CELERIS MAV	200mm	200mm	16	330	REFER TO DRAWINGS & SPECIFICATIONS.
AV2	PHOENIX CONTROLS	CELERIS MAV	250mm	250mm	24	472	REFER TO DRAWINGS & SPECIFICATIONS.
AV3	PHOENIX CONTROLS	CELERIS MAV	300mm	300mm	42	708	REFER TO DRAWINGS & SPECIFICATIONS.
AV4	PHOENIX CONTROLS	CELERIS MAV	350mm	350mm	94	1,180	REFER TO DRAWINGS & SPECIFICATIONS.
AV5	PHOENIX CONTROLS	CELERIS EXV	200mm	200mm	16	330	REFER TO DRAWINGS & SPECIFICATIONS.
AV6	PHOENIX CONTROLS	CELERIS EXV	250mm	250mm	24	472	REFER TO DRAWINGS & SPECIFICATIONS.
AV7	PHOENIX CONTROLS	CELERIS EXV	300mm	300mm	42	708	REFER TO DRAWINGS & SPECIFICATIONS.
AV8	PHOENIX CONTROLS	CELERIS EXV	350mm	350mm	94	1,180	REFER TO DRAWINGS & SPECIFICATIONS.

CONSTRUCTION NOTES:

- SHALL BE DESIGNED AND CONSTRUCTED AS MEDIUM PRESSURE DEVICES WITH A MINIMUM AIR PRESSURE DROP OF 150 PA, NOT TO EXCEED 750 PA, WITH THE AIRFLOW RANGE NOTED ABOVE.
- ALL AIR VALVES LOCATED WITHIN LABORATORIES WITH FUME HOODS (AND FUME HOOD EXHAUST AIR VALVES) SHALL BE HIGH SPEED (i.e., <1 SECOND SPEED OF RESPONSE) ACTUATION. ALL AIR VALVES WITHIN LABORATORIES WITHOUT FUME HOODS (AND FUME HOOD EXHAUST AIR VALVES) SHALL HAVE BE NORMAL SPEED (i.e., LOWER) ACTUATION.
- ALL SUPPLY AIR VALVES (i.e. SAV#) SHALL BE CONSTRUCTED WITH UNCOATED AN ALUMINUM BODY AND CONE AND WITH AN UNCOATED STAINLESS 316 SHAFT. VALVES SHALL BE BE COMPLETE WITH FACTORY-INSTALLED INSULATION.
- ALL GENERAL EXHAUST AIR VALVES (i.e. EXV#) SHALL BE CONSTRUCTED WITH AN UNCOATED ALUMINUM BODY AND CONE AND WITH AN UNCOATED STAINLESS 316 SHAFT.
- ALL FUME HOOD EXHAUST AIR VALVES (i.e. HEV#) SHALL BE CONSTRUCTED OF BACKED PHENOLIC COATED ALUMINUM, INCLUDING THE BODY, CONE AND HARDWARE. THE SHAFT SHALL BE CONSTRUCTED OF PFA-COATED 316 STAINLESS STEEL.
- SHALL BE COMPLETE WITH ALL-ELECTRONIC CONTROLS COMPLETE WITH THE DIGITAL, HIGH-SPEED ELECTRIC CONTROL PACKAGES. ACTUATOR FAIL POSITIONS SHALL BE AS NOTED WITHIN SCHEMATICS. ROOM CONTROL PACKAGE SHALL INCLUDE THE FOLLOWING COMPONENTS:
 - VERTICAL SASH SENSORS FOR EACH FUME HOOD.
 - FUME HOOD DISPLAYS FOR EACH FUME HOOD.
 - ZONE PRESENCE SENSORS FOR EACH FUME HOOD.
 - EMCS COMMUNICATION INTEGRATORS.
 - FAN STATIC PRESSURE RESET KIT (WHERE INDICATED WITHIN CONTROL SCHEMATICS).
 - ROOM CONTROLLER w/ TEMPERATURE & HUMIDITY SET-POINT CONTROL, OCCUPIED/UNOCCUPIED, OVERRIDE, SET-POINT ADJUSTMENT AND LCD DISPLAY.
- SHALL BE INSTALLED COMPLETE WITH MANUFACTURER-SUPPLIED DRAW BAND CLAMPS. FUME HOOD EXHAUST AIR VALVES (i.e. HEV#) SHALL BE COMPLETED WITH PTFE SEALANT TAPE WITH SILICON ADHESIVE.
- A MINIMUM OF 15% OF THE NEW SUPPLY AIR VALVES AND 15% OF THE NEW GENERAL/FUME EXHAUST AIR VALVES SHALL BE COMPLETE WITH DIFFERENTIAL PRESSURE TRANSDUCERS (ANALOG) TO ALLOW FOR THE IMPLEMENTATION OF A STATIC PRESSURE RESET PROGRAM. THESE AIR VALVES SHALL BE IDENTIFIED AT THE TIME OF SHOP DRAWINGS. THE CONTROLS CONTRACTOR SHALL IMPLEMENT THE STATIC PRESSURE RESET PROGRAM FOR THE MAIN SUPPLY AND EXHAUST SYSTEMS.

DIFFUSER / GRILLE SCHEDULE						
DESIGNATION	MANUF.	MODEL	NECK	AIR CAP. mmxmm	AIR CAP. L/s	COMMENTS
R1	EH PRICE	10 SERIES	---	600x600	110	SQUARE, PERFORATED GRILLE, T-BAR
S/A DESIGNATION	AIR CAPACITY	AIR PATTERN	R/A DESIGNATION	AIR CAPACITY		
A14	100		R1	100		



1	ISSUED FOR TENDER	JUL 24 2020
revisions		date
project		project

ELLIS LABORATORY VENTILATION UPGRADES BEDFORD INSTITUTE OF OCEANOGRAPHY DARTMOUTH, N.S.

VENTILATION DESIGN DETAILS & SCHEDULES

designed D.G.I.	conçu
date JULY 24, 2020	
drawn D.G.I.	dessiné
date JULY 24, 2020	
approved D.G.I.	approuvé
date JULY 24, 2020	
Tender	Soumission
PWGSC Project Manager	Administrateur de projets TPWSC
project number	no. du projet
R.082149.003	
drawing no.	no. du dessin
H5	