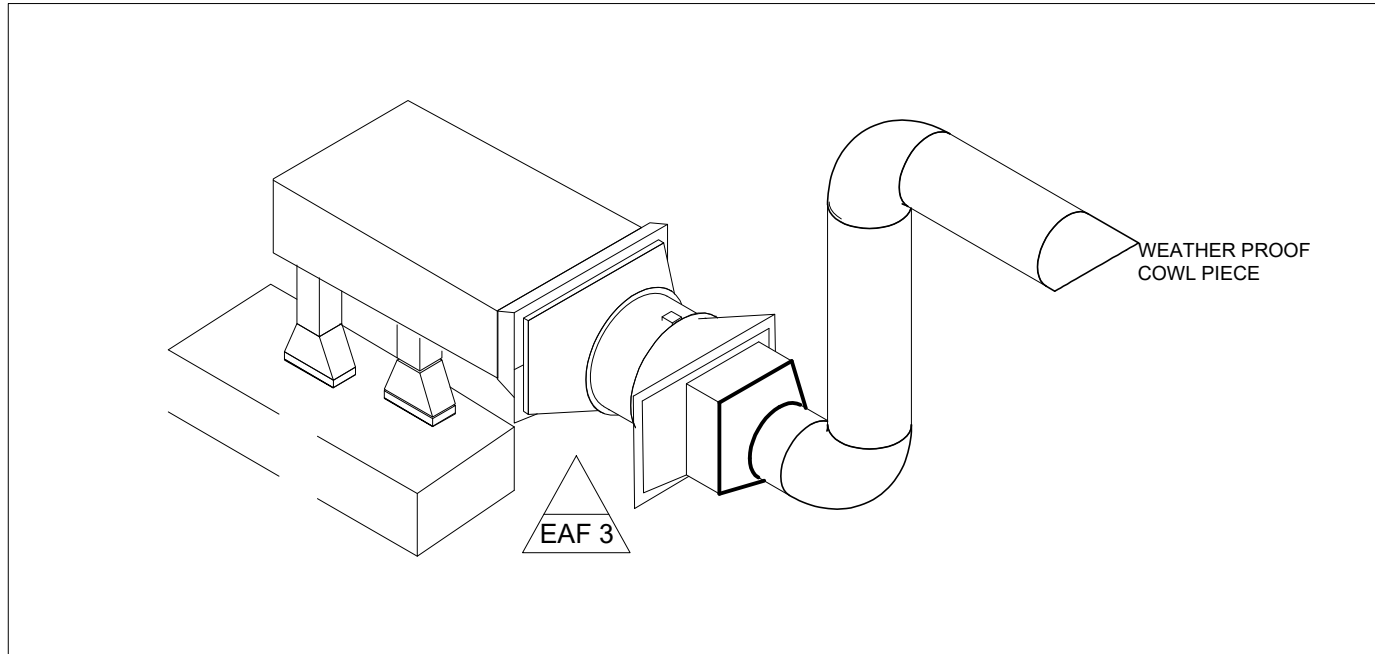


MULTI PURPOSE HALL  
SCALE 1:100



CANOPY EXTRACTION  
NTS

KITCHEN CANOPY INSTALLATION

- ALL WORK SHALL COMPLY WITH SANS 1850,HVCA (DW/172).
- FINAL DESIGNS AND LAYOUTS BY SPECIALIST CONTRACTOR TO BE APPROVED BY ENGINEER
- THE VELOCITY OF AIR FLOW THROUGH THE BAFFLE SLITS SHALL NOT BE LESS THAN 1,2M/S.
- THE FRAME SIZE OF BAFFLE FILTERS SHALL NOT EXCEED 500X500MM.
- DUCTING AIR VELOCITY SHALL BE A MINIMUM OF 5M/S AND A MAXIMUM OF 9M/S.
- UNDERSIDE OF THE CANOPY SHALL BE 2000 AND 2100MM ABOVE FFL.
- FIRE DAMPERS ARE PROHIBITED ON KITCHEN EXTRACTION CANOPY.
- FA=85% OF EXTRACT AIR BY NATURAL VENTILATION USE SHORT DUCTED INLET AT HIGHEST LEVEL C/W FILTRATION OR USE FILTERED CEILING, 15% INFILTRATED NATURALLY FROM SURROUNDING AREAS TO ENSURE KITCHEN REMAIN UNDER -VE PRESSURE.
- FOR MAKE UP AIR CANOPIES USE 30-35% VIA CANOPY AND 6-70% VIA DRAFT CEILING DIFFUSERS @ 0.9-1.2M/S.
- CANOPIES SHALL HAVE GREASE DRAWS WITH 500ML CAPACITY

ALL WORK MUST BE DONE BY PROPERLY TRAINED, QUALIFIED AND CERTIFIED PERSON(S) ALL WORK MUST BE DONE IN ACCORDANCE WITH SANS 1850, SANS 10139, STANDARDS AND RELATED CODES OF PRACTICE.

- OVERHANG FROM THE EDGE OF CATERING EQUIPMENT NORMAL COOKING 250MM ALL ROUND OVERHANG DEEP FRYING 600MM ALL ROUND OVERHANG CANOPY THICKNESS 1MM OR 1.2MM IF LENGTH>3M
- STAINLESS STEEL BAFFLE FILTERS TO REMOVE 5-10 MICRONS GREASE CONTAMINATION, WITH FRONT ACCESS AS PER UL 1046.
- MESH FILTERS MUST NOT BE USED MIN. 1.2M/S FACE VELOCITY THROUGH BAFFLE FILTERS.
- MAX SIZE TO SUIT LAYOUT AND CLEARLY INDICATED ON WORKSHOP DRAWING.
- CANOPY HEIGHT, MIN FFL TO UNDERSIDE OF CANOPY=2-2.1M(HEIGHT) FROM GREASE FILTER AND TOP OF THE COOKING SURFACE, MIN 900MM STAINLESS STEEL.
- USE S/S IF VISIBLE UNDERNEATH CEILING DUCTING NOT TO PASS ANY FIRE RESISTANCE OCCUPANCY MIN DUCTING CLEARANCE=500MM TO COMBUSTIBLE OR NON COMBUSTIBLE CONSTRUCTION (FIRE RESISTANCE BARRIERS) FOR MAINTENANCE , MIN DUCT SIZE=400X450MM.
- ACCESS PANELS EVERY 3M MAX. CENTERS @ SIDE OF DUCTS, RISERS OBD'S, SDA'S , FANS, SPIRAL DUCTING PROHIBITED ON EXTRACTION SYSTEMS DUCTING VELOCITY MIN 5M/S & 9M/S MAX.
- RISERS TO BE 300MM ABOVE ROOF TOP JOINTS, FLANGES, ACCESS PANELS, CORNERS TO BE GREASE TIGHT AND WIHSTAND EXTREME TEMPERATURES MAKE-UP AIR.
- IF NATURAL VENTILATION, TO HAVE SHORTEST DUCTING C/W FILTER AT HIGH LEVEL TO PREVENT CONTAMINATION + ADD FAN'S PRESSURE DROP MAKE-UP CANOPIES WITH 30-35% SUPPLY VIA CANOPY +65-70% VIA DOWN DRAFT DIFFUSERS @ 0.9-1.2M/S MAKE-UP IF MECHANICAL= 85% MIN OF TOTAL EXF + MIN OF TOTAL EXF + MIN 15% VIA INFILTRATION.
- CANOPY NOISE LEVEL @3m FROM FAN TO BE 50-55 dB(A)
- ALL KITCHEN CANOPY FINAL LAYOUTS MUST BE PRESENTED IN A WORKSHOP WORKSHOP FOR APPROVAL BY THE ENGINEER BEFORE INSTALLATION OR PROCUREMENT

Duct Accessory Schedule				
Mark	Description	Size (WxHxL)	Sound (dBA)@3m	Count
SDA 1	Sound Dampening attenuator	300x300x850	40-45	14

Air Terminal Schedule				
Mark	Description	Flow(L/S)	Size(WxHxD)	Count
DG 1	Door Grille c/w Vermin Proof	135.0	425x325	14
EDV 1	Extract Disc Valve	38.0	ø150	19
EDV 2	Extract Disc Valve	59-84.0	ø200	3
WL 3	Weather Louvre c/w Vermin Proof Mesh	450.0	600x500	6
EDV 3	Extract Disc Valve	120.0	ø300	4
WL 4	Weather Louvre c/w Vermin Proof Mesh	1400.0	900x900	1

Mechanical Equipment Schedule								
Mark	Description	Fan Speed (RPM)	Sound (dBA)@3m	Flow (L/s)	Pressure (Pa)	Voltage (V)	Input Current(A)	Count
EAF 3	Extraction fan	1400	63	1100	230	380	10	1
EAF 1	Extraction fan	1400	57	459	230	230	4.5	6

FOR  
TENDER

LEGEND:

		METAL EXHAUST VALVE
	DG	DOOR GRILLE
	EAF	TD FAN UNIT
		ISOLATOR UNIT

REV	DATE	DESCRIPTION	ISSUED BY	APPR. BY	SIGNATURE
A	17-07-20	UPDATED MECHANICAL LAYOUT UPDATED ARCHITECTURAL LAYOUT	RR	RR	
B	29-07-21	UPDATED MECHANICAL LAYOUT	RR	RR	

NOTES:

- THIS DRAWING MUST ONLY BE USED FOR THIS MECHANICAL PROJECT, FOR ANY OTHER DETAIL AND BUILDING LAYOUT SEE ARCHITECTS DRAWING.
- ALL DIMENSIONS MUST BE TAKEN ON SITE.
- THE EXACT POSITION OF EQUIPMENT WILL BE INDICATED ON SITE BY THE MECHANICAL ENGINEER
- DOORS UNDERCUT TO HAVE 25MM UNDERCUT.
- ALLOW 50MM WOODEN SLEEVES ALL ROUND ,UNLESS SPECIFIED OTHERWISE.
- ALL FANS SHALL BE INTERCONNECTED WITH FIRE DETECTION SYSTEM AND SHALL SHUT-OFF IN THE EVENT OF FIRE.
- CONTRACTOR TO REPORT UNFORSEEN CLASHES TO THE MECHANICAL ENGINEER.
- THIS DRAWING IS MERELY A GUIDE AND NO DIMENSIONS SHOULD BE TAKEN DIRECTLY FROM IT. ALL DIMENSIONS TO BE VERIFIED ON SITE.
- ALL WORK TO BE DONE IN ACCORDANCE WITH NATIONAL BUILDING REGULATIONS AND BUILDING STANDARDS ACT (ACT 107 OF 1977)
- DUCTING INSTALLATION IN ACCORDANCE TO SANS 1238
- ALL WEATHER LOUVRE OPENINGS COMPLETE WITH 50MM ALL ROUND TIMBER SLEEVE.
- ALL DOOR GRILLES TO BE 305MM ABOVE FFL.
- UNDERSIDE OF ALL TRANSFER GRILLES TO BE 2195MM ABOVE FFL, INCLUDING SLEEVE,UNLESS SPECIFIED OTHERWISE
- HARD-WIRED CONTROLS TO ALL AC UNITS.
- DEDICATED SWITCH FOR EXTRACT FANS AS SPECIFIED BY ELECTRICAL ENGINEER.
- NO GRATING, ANGLE SECTIONS, ETC MAY BE CUT, DRILLED OR WELDED AFTER GALVANIZING
- THE GULLEYS ARE TO BE LINED WITH A SMOOTH EPOXY SUITABLE FOR SERVICE BETWEEN 0° & 90° AND RESISTANT TO IMPACT AND DETERGENTS
- FANS TO BE SWITCHED ON FROM WALL MOUNTED SWITCHES NEXT TO THE LIGHT SWITCHES COORDINATED BY ARCHITECTS AND ELECTRICAL ENGINEER.

CLIENT:



CONSULTANT:



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	NAME	REG. NO.	SIGNATURE	DATE
DRAWN	C.T.P.K			
DESIGNED	R.R	20140432		
APPROVED	R.R	20140432		

PROJECT DESCRIPTION  
TROMPSBURG SPECIAL SCHOOL : **SCHOOL SECTION**

DRAWING TITLE  
MULTI PURPOSE HALL HVAC LAYOUT

STATUS LEGEND		SHEET SIZE	
I	= INFORMATION	A1	
CV	= CONCEPT AND VIABILITY	SCALE AS SPECIFIED	
D	= DESIGN DEVELOPMENT		
T	= TENDER		
C	= CONSTRUCTION		
AB	= AS BUILT		
DISCIPLINE	DRAWING NUMBER	STATUS	REVISION
MECHANICAL	92-ME-AC-006	T	B