

B.1.9	Ventilation Equipment														
B.1.9.1	Return Air Exhaust Fan (RAEF-Z1 RD-1), SISW Centrifugal Direct Drive with Backward Inclined Wheel complete with standard accessories, VFD compatible / BMS ready, 8000 CFM, 5.0 in.wc. (TSP), 12.0 kW, 400 V, 3 Ph, 60 Hz, mounted on 150 mm thk concrete pad, with canvass cloth connection to stainless steel exhaust ducting including supports and aluminum screen wire mesh Location: Roofdeck Area Served: Radioactive Areas (GF)	1	set												
B.1.9.2	Return Air Exhaust Fan (RAEF-Z1 RD-2), SISW Centrifugal Direct Drive with Backward Inclined Wheel complete with standard accessories, VFD compatible / BMS ready, 3000 CFM, 2.0 in.wc. (TSP), 4.0 kW, 400 V, 3 Ph, 60 Hz, bolted on concrete slab with 10 mm Ø full threaded rod hangers and angle bar supports Location: Roofdeck Area Served: Cyclotron Bunker (GF)	1	set												
B.1.9.3	Return Air Exhaust Fan [RAEF-Z1 2F-1 (duty); RAEF-Z1 2F-2 (standby)], Inline Cabinet Type Exhaust Fan with backdraft damper complete with standard accessories, VFD compatible / BMS ready, 200 CFM, 200 Pa (TSP), 73 W, 230 V, 1 Ph, 60 Hz, with metal support frame Location: Second Floor Area Served: Radioactive Material (RAM) Storage	2	sets												
B.1.9.4	Return Air Exhaust Fan (RAEF-Z1 2F-3), Ceiling Cassette Type Centrifugal Sirocco Fan with backdraft damper complete with standard accessories, VFD compatible / BMS ready, 100 CFM, 150 Pa (TSP), 33 W, 230 V, 1 Ph, 60 Hz, with metal support frame Location: Second Floor Area: Decontamination Room	1	set												
B.1.9.5	Return Air Exhaust Fan [RAEF-Z1 GF-1; RAEF-Z1 GF-2], Inline Cabinet Type Exhaust Fan with backdraft damper complete with standard accessories, VFD compatible / BMS ready, 240 CFM, 200 Pa (TSP), 73 W, 230 V, 1 Ph, 60 Hz, with metal support frame Location: Ground Floor Area Served: Radioactive Waste (RadWaste) Storage	2	sets												
B.1.9.6	Return Air Exhaust Fan (RAEF-Z1 GF-3), Inline Cabinet Type Exhaust Fan with backdraft damper complete with standard accessories, VFD compatible / BMS ready, 540 CFM, 200 Pa (TSP), 300 W, 230 V, 1 Ph, 60 Hz, with metal support frame Location: Ground Floor Area Served: Cyclotron Power / UPS Room	1	set												
B.1.9.7	Return Air Exhaust Fan (RAEF-Z1 GF-4; RAEF-Z1 GF-5), Inline Cabinet Type Exhaust Fan with backdraft damper complete with standard accessories, VFD compatible / BMS ready, 700 CFM, 200 Pa (TSP), 350 W, 230 V, 1 Ph, 60 Hz, with metal support frame Location: Ground Floor Area Served: Service Area	2	sets												
SUB-TOTAL (B.1.9)															
B.1.10	Air Filtration System (AFS) - BIBO Box														

B.1.10.1	RAFB-Z1 RD-1 , 8000 CFM, Bag-In / Bag-Out (BIBO) Housing Box with SS-304 material, PAO port, pressure gauge protection, motorized tight damper, filter scanner leak monitoring and verification scheme, BMS ready, Preliminary Filter = MERV 8 + MERV 13, Secondary Filter = H14, Final Filter = activated carbon (VOC) (see technical specifications for complete details), including mounting on 150 mm concrete pad Location: Roof Deck Area Served: Radioactive Areas	1	set																
B.1.10.2	RAFB-Z1 RD-2 , 3000 CFM, Bag-In / Bag-Out (BIBO) Housing Box with SS-304 material, PAO port, pressure gauge protection, motorized tight damper, filter scanner leak monitoring and verification scheme, BMS ready, Preliminary Filter = MERV 13, Secondary Filter = H14, Final Filter = activated carbon (VOC) (see technical specifications for complete details), bolted on concrete slab with 10 mm Ø full threaded rod hangers and angle bar supports Location: Roof Deck Unit Served: AHU-Z1 RD-1 Return Air Duct (RAD)	1	set																
B.1.10.3	RAFB-Z1 RD-2 , 750 CFM, Bag-In / Bag-Out (BIBO) Housing Box with SS-304 material, PAO port, pressure gauge protection, motorized tight damper, filter scanner leak monitoring and verification scheme, BMS ready, Preliminary Filter = MERV 13, Secondary Filter = H14, Final Filter = activated carbon (VOC) (see technical specifications for complete details), including mounting on 150 mm concrete pad Location: Roof Deck Area Served: Iodine-123 Hotcell	1	set																
SUB-TOTAL (B.1.10)																			
B.1.11	Air Diffusers, Grilles & Accessories																		
B.1.11.1	Location: Ground Floor Area: Cyclotron Bunker																		
B.1.11.1.1	Supply Air Diffuser (SAD) , 300 mm x 300 mm, Stainless Steel	1	unit																
B.1.11.1.2	Return Air Grille (RAG) , 300 mm x 300 mm, Stainless Steel	1	unit																
B.1.11.1.3	Fire Damper (FD) , 500 mm x 500 mm, Stainless Steel, Multi-blade type, Fusible Link, UL Listed, 165° F, Motorized integrated into the Fire Alarm System	2	units																
B.1.11.2	Location: Ground Floor Areas: Service Area, Hotcells, Radiochem Lab., Cyclotron UPS Room, Radioactive Waste Room																		
B.1.11.2.1	Exhaust Air Grille (EAG) , 500 mm x 300 mm, Hinge Type, Perforated Anodized Aluminum Ceiling Diffuser with Opposed Blade Volume Damper	7	units																
B.1.11.3	Location: Second Floor Area: Radioactive Material (RAM) Storage																		
B.1.11.3.1	Exhaust Air Grille (EAG) , 500 mm x 300 mm, Hinge Type, Perforated Anodized Aluminum Ceiling Diffuser with Opposed Blade Volume Damper	2	units																
B.1.11.4	Volume Damper (VD) , 500 mm x 500 mm, Extruded Aluminum, Motorized Control	7	units																
SUB-TOTAL (B.1.11)																			
B.1.12	Ducting & Piping Works (refer to mechanical plan for																		

