1 - This schedule must be read in conjunction with the Mechanical Services Specification and Drawings
2 - Equipment selection is to be manufactured by Toshiba or equal and approved and must be installed in accordance with manufacturer's instr
3 - Pipework related performance losses must be considered.
4 - A Black Pear combined with a Smart Touch Central Controller are to be installed in the Admin/Comms room along with the Banking Hall group
5 - Local controllers are to be located next to light switches where possible and installed to provide a neat, aesthetically pleasing appearance.
6 - All units are to shut down in the event of fire alarm or fog bandit operation.
7 - All indoor units to be fitted with integral lift pumps and supplementary condensate pumps (Aspen Hi-flow or similar) as required.
8 - Cassette unit panels on exposed units (not in a ceiling) in the banking hall are to be sprayed for aesthethics. Colour to be specified by the
9 - An RBC-SMIM2 Indicator Module is to be fitted to AC-06B to ensure that the heating capability (but not the fan) of the over door heater is

	Outdoor	Location	Outdoor	Outdoor	Weight	Dimensions W - D - H	Power Supply	Air Flow	Sound Power Level	Maximum Run Current	Total Cooling	Heating Capability
	Reference		Туре	Model	(kg)		(V/Ph/Hz) (L/s)	(L/s)	dB(A)	(A)	kW	kW
_	CU.01	Courtyard	RAV Digital Inverter RAV-SM404ATP-E	RAV-SM404ATP-E	39	780 x 290 x 550	230/1/50	616	65	5.14	3.40	2.50
_	CU.02	Courtyard	Courtyard RAV Digital Inverter RAV-SM304ATP-E	RAV-SM304ATP-E	33	780 x 290 x 550	230/1/50	500	62	3.86	2.40	2.20
_	CU.03	Courtyard	Courtyard RAV Digital Inverter RAV-SM304ATP-E	RAV-SM304ATP-E	33	780 x 290 x 550	230/1/50	500	62	3.86	2.40	2.20
_	CU.04	Courtyard	Courtyard RAV Digital Inverter RAV-SM804ATP-E	RAV-SM804ATP-E	44	780 x 290 x 550	230/1/50	750	69	11.4	8.00	9.00
_	CU.05	Courtyard	Courtyard RAV Digital Inverter RAV-SM304ATP-E	RAV-SM304ATP-E	33	780 x 290 x 550	230/1/50	500	62	3.86	2.40	2.20
	CU.06	Courtyard	Courtyard RAV Digital Inverter RAV-SM1603AT-E	RAV-SM1603AT-E	99	1,340 × 900 × 320 230/1/50 1,717	230/1/50	1,717	70	21.7	11.00	12.00
_												

Services Specification and Drawings and approved and must be installed design conditions: -10°C db ambient

LEGEND CC

NEW HARD WIRED LOCAL A/C CONTROLLER A/C CENTRAL CONTROLLER HARD WIRED TEMPERATURI

1. DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS.

2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT CONTRACT DOCUMENTS INCLUDING ALL MECHANICAL, ELECTRICAL, PUBLIC HEALTH, ARCHITECTURAL, STRUCTURAL AND CIVIL ENGINEERING DRAWINGS, SPECIFICATIONS AND SCHEDULES.

3. THIS DRAWING HAS BEEN PRODUCED FOR INFORMATION & DESIGN PURPOSES ONLY AND IS NOT TO BE USED AS A WORKING DRAWING. THE CONTRACTOR SHALL PRODUCE DIMENSIONED WORKING DRAWINGS FOR THE ENGINEER'S APPROVAL BEFORE SETTING OUT ON SITE.

4. THE SERVICES CONTRACTORS SHALL LIAISE WITH ALL OTHER CONTRACTORS TO ENSURE ADEQUATE PERMANENT FLOOR, WALL AND CEILING ACCESS PANELS FOR THE BUILDING SERVICES WITH ACL CO-ORDINATE MECHANICAL, ELECTRICAL, PUBLIC HEALTH AND FIRE PROTECTION SERVICES WITH ALL OTHER CONTRACTORS, SPECIALISTS AND TRADES.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND HANDOVER OF COMPLETE WORKING SYSTEMS.

7. THE LOCATION OF NEW PLANT & EQUIPMENT IS INDICATIVE ONLY AND SHALL BE AGREED WITH THE ARCHITECT & STRUCTURAL ENGINEER.

		4.7											. 7 7 ()	
		,	Ways	3	m		Drop	Level	Length	Width	Height	Spigot	:	
						l/s	Pa		mm	mm	mm	mm		
	Ctoff Doom	_	_	ა ნ	1E0 × 1E0	3	0	\ 0	1 0	450	450	1502	Socios DOA AEOCAEO NOD	Complete with suitably sized plenum and Neck
יטיטיטד פוט	Stall Rooll	1	4	2.0	430 X 430	30	0	6	UCI	450	450	φοςτ	Selles DG4-450X430-INRF	Reduction Plate (NRP) 150x150
	EMD	1	7) C	750 ~ 750	30	٦	730	150	750	750	150%	Socies DCA-ASO-ASO-NDD	Complete with suitably sized plenum and Neck
D.00.02 GIO		1	4	2.0	430 X 430	30	O	//	LJU	450	430	Ancı	Selles DG4-450X450-NKF	Reduction Plate (NRP) 150x150
	Admin / Commo	1	7	2 0	750 ~ 750	10	9	720	150	750	750	150%	Socios DCA-ASOCASO-NBB	Complete with suitably sized plenum and Neck
	Adilli / Collins	1	4	2.0	430 X 430	10	O	/	LJU	430	400	Anct	Selles DG4-450x450-NNF	Reduction Plate (NRP) 150x150
D.00.04 Grd	Banking Hall	1	1	3.0	-	220	6	<25	3700	181	305	200ø	GSLM 4 Slot	Complete with 3 No. suitably sized plenums
D.00.05 Grd	Banking Hall	1	1	3.0	-	220	6	<25	6200	181	305	200ø	GSLM 4 Slot	Complete with 3 No. suitably sized plenums
D 00 06 Grd	DMB	<u>.</u>	4)	450 > 450	ล	ת	\ ၁	150	450	450	150%	Sarias DGA-A50vA50-NBD	Complete with suitably sized plenum and Neck
\vdash	- 1911	-	-	7.0	× 100	۲		2	100	1,0	1,0	100%	UCICO DOT 1000100 NIA	Reduction Plate (NRP) 150x150
G.00.01 Grd	Staff Room	1	N/A	N/A	550 x 550	30	5	<30	150	550	550	150ø	Series GECA	Complete with suitably sized plenum

Reference Floor Location Qty	Floor	Location	Qty		Dimensions	าร	Power	Output	Power Output Running Air		Max Air Weight Noise Output	Weight	Noise	out	put	Emitter	Emitter Manufacture
				Height	Width	Depth	Height Width Depth Supply		Current Volume	Volume	1e Velocity		dB(A) @ 3m) @ ;	ĭ	Туре	& Notes
				mm	mm	mm	mm V/Ph/Hz	kW	Α	m3/hr	m/s	kg	Ŧ	X	L		
ODH-01	Grd	ODH-01 Grd Entrance 1	1	209	1133	394	209 1133 394 400v/3P&N 4.9 / 9 18.3	4.9 / 9	18.3	1200	9	19	50	48 '	46	C2-1000E	50 48 46 C2-1000E Thermoscree

ES:
his schedule must be read in conjunction with the Mechanical Services Specification and Drawings.
quipment is to be manufactured by Thermoscreens (as shown) or equal and approved.
he unit is to be provided with an Ecopower controller located within the Admin/Comms room.
Jnit is to be enabled by the Smart Touch/Black Pear using the INO switch contacts and provide fault reporting using the J1 contacts via a Ti
'he Over Door Heater is to be interlocked with the air conditioning systems to ensure that the heating capability (but not the fan) is only en

Reference	Floor	Reference Floor Location	Qty	D:	Dimensions	S	Power	Output Runr	Running	ΙP	Weight	Emitter	Manufacturer & Not
				Height mm	Width mm	Width Depth mm mm	Supply V/Ph/Hz	kW	Current A	Rating	k	Туре	
EH -01	Grd	Lobby	1	400	625	06	230/1/50 0.75	0.75	13	IP 24	IP 24 4.1	Electric Panel Heater Nobo - NTE4N07	Nobo - NTE4N07
EH -02	Grd	Female WC	1	400	625	90	230/1/50 0.75	0.75	13	IP 24	IP 24 4.1	Electric Panel Heater Nobo - NTE4N07	Nobo - NTE4N07
	-				1	00	0=/ 1/000	2 11	,				

Number of Units Location Service		
Control		
- 10:31:0		Conord WC
Internal/External		Internal
Operation		Supply
Manufacturer		Nuaire
Model		DS6A-EES
Construction		
Motor Type		EC
Overall Size	mm	1,152 L x 1,092 W x 459 H
Weight (Appprox.)	kg	90
Connection Size	mm	400Ø
Duty		
Design Airflow Rate	L/s	200
Design External Pressure Drop	Pa	150
Electrical Supply		
Phase	Ø	1
Frequency	Hz	50
Voltage	٧	230
Motor Rating	kW	0.45
Full Load Current	Amps	2.9
Starting Current	Amps	2.9
Maximum Motor Speed	RPM	1,710
No of Speeds		Inverter
Method of Start/Control		ES-LCD (Ecosmart LCD Touch Screen User Control)
Heater Current	Amps	40
Heater + Motor Current	Amps	42.9
Other		
Filter		G4
Max. Operating Temp	°C	40
		No
Timeclock		No

MAMPERS SHALL BE INSTALLED IN THE POSITIONS NUICATED.

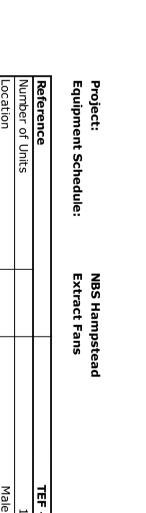
HE DUCTWORK AND EQUIPMENT SUPPORT SYSTEM HALL BE DESIGNED TO COMPLY WITH THE PECIFICATION OF SHEET METAL DUCTWORK WITH THE VARIED OR EACH SITUATION. THE MEED FOR ALTERNATIVE FIXING METHODS OR SHEET METAL DUCTWORK WITH THE VARIED OR EACH SITUATION. THE MEED FOR ALTERNATIVE FIXING METHODS.

RELIES AND DIFFUSERS SHALL BE SERVICES OR THE BUILDING.

RELIES AND DIFFUSERS SHALL BE SHALL B

alled in

1 - This schedule must be read in conjunction with the Mechanical Services Specificati
Drawings.
2 - All units are to be manufactured by Nuaire or equal and approved and must be insta
accordance with manufacturer's instructions.



Project:	NBS Hampstead	stead
Equipment Schedule:	extract Fans	ns
Reference		TEF - 01
Number of Units		1
Location		Male WC
Service		Male WC
Internal/External		Internal
Operation		Extract
Manufacturer		Nuaire
Model		Opus60S-ESF
Construction		
Motor Type		EC
Overall Size	mm	340 L x 255 W x 155 H
Weight (Appprox.)	kg	3.2
Connection Size	mm	100Ø
Duty		
Design Airflow Rate	L/s	30
Design External Pressure Drop	Pa	60
Electrical Supply		
Phase	Ø	1
Frequency	Hz	50
Voltage	٧	230
Motor Rating	KW	0.043
Full Load Current	Amps	0.32
Starting Current	Amps	0.32
Maximum Motor Speed	RPM	2,500
No of Speeds		N/A
Method of Start/Control		Lights
Auto-Changeover		N/A
Duty Share		N/A
Accessories		
Flexible Connections		Yes (2 x CFC20)
Resilient Mounts		Yes (NAV)
Attenuator/Silencer		No
Timeclock		No
		Complete with Ecosmart controls capable of providing a

EXISTING KITCHEN EXTRACT FAN TO BE RETAINED (SUJECT TO A VALIDATION BY THE CONTRACTOR).

M/W

S

INDICATIVE ROUTE OF REFRIGERATION FINAL ROUTE TO BE DECIDED ON SITE.

EXISTING KITCHEN EXTRACT LOUVRE TO BE RETAINED. SUBJECT TO VALIDATION BY THE CONTRACTOR.

INDICATIVE ROUTE OF REFRIGERATION PIFINAL ROUTE TO BE DECIDED ON SITE.

EXISTING FRESH AIR INTAKE LOUVRE TO BE RETI SUBJECT TO VALIDATION BY THE CONTRACTOR.

EXISTING WC EXTRACT LOUVRE TO BE RETAINED. SUBJECT TO VALIDATION BY THE CONTRACTOR.

NEW TOILET EXTRACT FAN CONNECT — TO EXISTING DUCTWORK. SUBJECT TO VALIDATION BY THE CONTRACTOR.

NOTES:
${f 1}$ - This schedule must be read in conjunction with the Mechanical Services Specification and Drawings.
2 - All units are to be manufactured by Nuaire or equal and approved and must be installed in accordance with manufacturer's instructions.

Miscellaneous	Timeclock	Attenuator/Silencer	Resilient Mounts	Flexible Connections	Accessories	Duty Share	Auto-Changeover	Method of Start/Control	No of Speeds	Maximum Motor Speed	Starting Current	Full Load Current	Motor Rating	Voltage	Frequency	Phase	Electrical Supply	Design Exter	Design Airflow Rate	Duty	Connection Size	Weight (Appprox.)	Overall Size	Motor Type	Construction	Model	Manufacturer	Operation	Internal/External	Service	Location	Number of Units	Reference	rquipilient ochedule:
<u>σ</u>		Silencer	ınts	nections	5		eover	tart/Control	S	tor Speed	rent	rrent					upply	Design External Pressure Drop	w Rate		Size	prox.)			ň		7		ernal			nits		ociicadie.
										RPM	Amps	Amps	kW	<	Hz	Ø		Pa	L/s		mm	kg	mm											Extract Falls
Complete with Ecosmart controls capable of provid fault signal to Modbus system via TXIO module link Black Pear. Run-on timer to be set to 10 minute	No	No	Yes (NAV)	Yes (2 x CFC20)		N/A	N/A	Lights	N/A	2,500	0.32	0.32	0.043	230	50	H		65	50		100Ø	3.2	340 L x 255 W x 155 H	EC		Opus60S-ESF	Nuaire	Extract	Internal	Female WC	Female WC	1	TEF - 02	

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PRELIMINARY

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NOTES:
1 - This schedule must be read in conjunction with the Mechanical Services Specification and
Drawings.
2 - All units are to be manufactured by Nuaire or equal and approved and must be installed in
accordance with manufacturer's instructions.

NATIONWIDE BUILDING SOCIETY

HAMPSTEAD

Ref Location Qty Airflow Costruction NR Size Weight Manufacturer/Notes ATT-01 Void over male WC 1 200 LG01V/1E/L/S NR38 @ 1.5m 1220 450 41 400ø Spigot end connection	Equipment Schedule:	Schedule:	Attenuators	lators							
L/s Level Length Width Height kg 1 200 LG01V/1E/L/S NR38 @ 1.5m 1220 450 450 41	Ref	Location	Qty	Airflow	Costruction	NR		Size		Weight	Manufacturer/Notes
1 200 LG01V/1E/L/S NR38 @ 1.5m 1220 450 450 41				L/s		Level	Length	Width	Height	kg	
1 200 LG01V/1E/L/S NR38 @ 1.5m 1220 450 450 41							mm	mm	mm		
	ATT-01	Void over male WC	1	200	LG01V/1E/L/S	NR38 @ 1.5m		450		41	400ø Spigot end connections.

Trawing Number:

5102/M/221

Designed: Fz | Cad: JUNE 2017 Scale: Checked By: JSW

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P2

GROUND FLOOR HVAC LAYOUT