Comm		N oning L	.td	Project: Holloway Head		Date:	Feb-23	
Tel: 07813	<u> 437803</u>			Girl Guides				
Sheet	1	of	3	Job Ref: 3137 System: Lower Ground		Enginee	er: AS	
				EF2		Client:	TNA	
Fan Ref:		EF2		Test Inst Type:	Micro			
				FAN TEST DIRE	CT DRIVE			
Technica	<b>I</b> Detail	s:	•					
Fan Manufa	acturer			NIΙΔΙRΕ	Motor Power		N/S	k\٨/

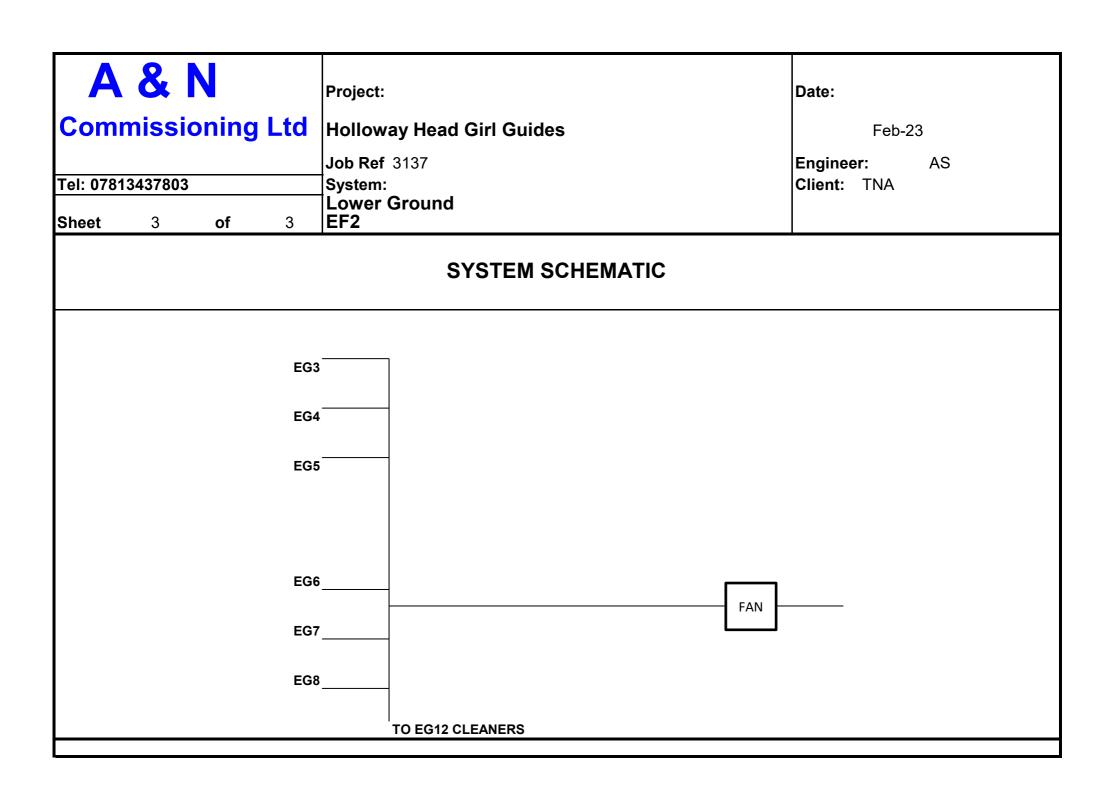
Technical Detai	ils:									
Fan Manufacturer			NUAIRE		Motor Po	wer		N/S	kW	
Fan Type/Size			DE2-ES		Voltage			240	V	
Motor Manufacture	r		NUAIRE							
Motor Frame No		N	OT STAT	ED						
Motor Serial No			5563874							
Electrical	Design		Actual							
Running Current (A		0.75	UTO							
Speeds	Design	Actual		Pressu	res	Design		Actual		
Fan (rpm)	3200	UTO		Static He		N/S	Total		N/A	
Motor (rpm)	3200	UTO		SP @ Inl	et (pa)	N/A	SP @ Ou	utlet (pa)	N/A	
Duct Traverse	Height		Width		Duct			Duct		
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A	
								Total	N/A	
								No of		
								Readings	N/A	
								Average		
			REFER	TO NOTI	BELOV	V		Vel (m/s)	N/A	
								SP @Trav.	N/A	
AIR VOLUME			AIR VOL	.UME			AIR VOL	UME		
DESIGN (m³/s)	0.1	14	ACTUAL	. (m³/s)	0.1	120	% OF DE	% OF DESIGN 10		

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

A	&	N		Project:	Project: Date:					
Comn	nissio	oning	Ltd	Holloway Head		Feb-23				
Tel: 07813	3437803			Girl Guides						
				<b>Job Ref:</b> 3137						
Sheet	2	of	3	System:	Engine	er:				
				Lower Ground		AS				
				EF2	Client:	TNA				
Fan Ref:		EF2		Test Inst Type: Ane/Balom						

## **GRILLE / DIFFUSER TEST**

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	$m^2$	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
EG3	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG4	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG5	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG6	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG7	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG8	0.008	0.015	1.875	2.000	107	2.000	0.016	1.000	0.016	107
EG12	0.008	0.024	3.000	3.000	100	3.000	0.024	1.000	0.024	100



<b>A &amp;</b>	NI NI							
AX	IN		Project:	Project:				
Commissi	oning L	td	Holloway Head			Feb-23		
Tel: 07813437803			Girl Guides					
			Job Ref: 3137					
Sheet 1	of	4	System:	Engine				
			Lower Ground			AS		
			MVHR1 Supply		Client:	TNA	ļ	
Fan Ref:	MVHR1		Test Inst Type:	Micro				
			FAN TEST DIRE	ECT DRIVE				
Technical Deta	ıils:							
Fan Manufacturer			SAMSUNG	Motor Power		N/S	kW	
Fan Type/Size			NOT STATED	Voltage		240	V	
Motor Manufacture	er		SAMSUNG					
Motor Frame No		1	NOT STATED					
Motor Serial No	,	-	NOT STATED					

Electrical	Design	Actual
Running Current (A	N/S	UTO

Speeds	Design	Actual		Pressu	res	Design		Actual	
Fan (rpm)	N/S	UTO		Static He	ad (pa)	N/S	Total		N/A
Motor (rpm)	N/S	UTO		SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Traverse</b>	Height		Width		Duct		Duct		
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
								Average	
			REFER T	TO NOTE	BELOV	V		Vel (m/s)	N/A
								SP @Trav.	N/A
AIR VOLUME			AIR VOL	UME			AIR VOLUME		
DESIGN (m³/s)	0.1	00	ACTUAL	$(m^3/s)$	0.1	103	% OF DESIGN		103

COMMENTS HIGH SPEED

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

A &	N		Project:				Date:		
<b>Commissi</b> Tel: 07813437803	oning L	.td	Hollowa Girl Gu	ay Head ides				Feb-23	
Sheet 2	4	Job Ref: 3137 System: Lower Ground MVHR1 Extract			Engineer:  AS Client: TNA				
Fan Ref:	MVHR1		Test Inst	:Туре:	Micro				
Technical Deta	ile:		FAN TE	ST DIRE	CT DRIN	/E			_
Fan Manufacturer	113.	<u> </u>	SAMSUN	<u> </u>	Motor Po	wer		N/S	kW
Fan Type/Size			OT STATI		Voltage	WCI		240	V
Motor Manufacture	r		SAMSUN		Vollage			2.0	<u>-</u>
Motor Frame No	•	ł	OT STATI						
Motor Serial No		<del></del>	OT STATI						
Electrical	Design	•	Actual					•	
Running Current (A	۸)	N/S	UTO						
Speeds	Design	Actual		Pressui	res	Design		Actual	
Fan (rpm)	N/S	UTO	UTO Static Head (pa) N/S Total			N/A			
Motor (rpm)	N/S	UTO		SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Traverse</b>	uct Traverse Height Width Duct				Duct				
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A

Duct Traverse	Height		Width		Duct		Duct		
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
								Average	
			REFER 1	TO NOTE	BELOW	/		Vel (m/s)	N/A
								SP @Trav.	N/A
AIR VOLUME			AIR VOL	UME			AIR VOL	UME	
DESIGN (m³/s)	0.1	00	ACTUAL	$(m^3/s)$	0.1	01	% OF DE	ESIGN	101
COMMENTS	HIGH SPE	ΞD							_

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

A	&	<b>V</b>		Project:			Date:				
Comr	nissic	ning	Ltd	Hollowa	ay Head			Feb-23			
Tel: 0781	3437803			Girl Gui Job Ref:							
Sheet	3	of	4	System: Lower (	Ground			Engineer:			
				MVHR1	Supply	& Extrac	ct	Client:	TNA		
Fan Ref:		MVHR1		Test Inst	Type:	Ane/Balon	n				
				GRILLE	/ DIFFU	JSER TE	ST				
DESIGN				INITIAL		FINAL					
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%	
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s		
SG1	BALOM	0.030	N/A	0.031	103	N/A	0.031	1.000	0.031	103	

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG1	BALOM	0.030	N/A	0.031	103	N/A	0.031	1.000	0.031	103
SG2	BALOM	0.070	N/A	0.072	103	N/A	0.072	1.000	0.072	103
EG1	BALOM	0.030	N/A	0.030	100	N/A	0.030	1.000	0.030	100
EG2	BALOM	0.070	N/A	0.071	101	N/A	0.071	1.000	0.071	101

Commi	issic		Ltd 4	Project: Holloway Head Girl Guides Job Ref 3137 System: Lower Ground MVHR1 Supply & Extract	Date: Feb-23 Engineer: AS Client: TNA						
SYSTEM SCHEMATIC											
	EG2_			SG1 SG2 MVHR							

A	&	N		Project:				Date:			
Comr	nissid	oning L	.td	Hollowa	ay Head				Feb-23		
Tel: 0781				Girl Gui							
Chast	_	_		Job Ref:	3137			Fraince			
Sheet	1	of	4	System:	Ground			Enginee	r: AS		
					Supply			Client:	TNA		
Fan Ref:		MVHR2		Test Inst		Micro					
					ST DIRE	.OT DDI/	/E	•			
				FAN IE	אוע ו 5.	CI DRIV	/ <b>E</b>				
Technic	al Detai	ls:				1			1		
Fan Manu				SAMSUN		Motor Pov	wer		0.33	kW	
Fan Type				N080JSKL		Voltage			240 V		
Motor Ma		r		SAMSUN							
Motor Fra				IOT STATI							
Motor Ser		<del>1</del>	<u> </u>	BSS7P8S1	ſ <b>7</b>						
Electric		Design	- 10	Actual							
Running (		í	2.10	UTO	TD		<u> </u>	1	I., ,		
Speeds		Design	Actual		Pressur		Design		Actual	2110	
Fan (rpm)		N/S	UTO		Static He		N/S	Total	4154 (50)	N/A	
Motor (rpr		N/S	UTO	T	SP @ Inle		N/A	SP @ Ou		N/A	
Duct Tra	averse	Height		Width		Duct			Duct		
TP1	Ι	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A	
					<u> </u>				Total	N/A	
									No of		
		Γ	Γ	T	[	<u> </u>	Г	Ţ	Readings	N/A	
									Average		
		<u> </u>		REFER <sup>-</sup>	TO NOTE	BELOW	<b>V</b>		Vel (m/s)	N/A	
		<u> </u>		T				1	SP @Trav.	N/A	
		<del> </del>							01 (2) 1121.	1 4// 1	
		<u> </u>		+	<del> </del>						
		<u> </u>	<del> </del>	+	1			1			
		<u> </u>	<del>                                     </del>	<u> </u>	<u> </u>						
		<u> </u>		<u> </u>	<u> </u>						
		<u> </u>	<u></u>	<u> </u>							
AIR VOLU	JME			AIR VOL	UME			AIR VOL	UME		
DESIGN (		0.24		ACTUAL	$(m^3/s)$	0.2	233	% OF DE	SIGN	95	
COMMEN	THE ABO	TURBO SP OVE TOTAL GS TAKEN (	MEASUR			-AN WAS	GAINED '	VIA ADDIT	TION OF AI	_L	

A &	N		Project:				Date:		
Commission	onina L	td	Hollow	ay Head				Feb-23	
Tel: 07813437803	<u> </u>		Girl Gu	-				. 02 20	
			Job Ref:	3137					
Sheet 2	of	4	System:				Enginee		
			Lower				0114-	AS	
			WVTKZ	Extract			Client:	TNA	
Fan Ref:	MVHR2		Test Inst	:Type:	Micro				
Technical Detai	ils:		FAN TE	ST DIRE	CT DRIN	/E			
Fan Manufacturer			SAMSING	3	Motor Pov	wer		0.33	kW
Fan Type/Size		1A	N080JSKL	.KN	Voltage			240	V
Motor Manufacture	r		SAMSUN	G					
Motor Frame No			OT STAT						
Motor Serial No	T= .	E	BSS7P8S	Γ7					
Electrical	Design	0.10	Actual						
Running Current (A Speeds	<u> </u>	2.10	UTO	Pressu	<u> </u>	Dasian	1	A atual	
Fan (rpm)	Design N/S	Actual UTO				Design N/S	Total	Actual	N/A
Motor (rpm)	N/S	UTO		Static He SP @ Inle		N/A	SP @ Ou	ıtlet (pa)	N/A
Duct Traverse	Height	0.0	Width	5. @·	Duct	14/71	0. 6. 0.	Duct	,, .
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
	(11111)	14// (	(11111)	14// (	Dia (mm)	14/7 (		Total	N/A
								No of	14// (
								Readings	N/A
								Average	1 4// 1
			REFER :	TO NOTE	BELOV	<b>V</b>		Vel (m/s)	N/A

DESIGN (m³/s) COMMENTS TURBO SPEED

0.244

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.250

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

SP @Trav.

AIR VOLUME

% OF DESIGN

N/A

102

<b>8 A</b>	N		Project:	Date:	
Commis	sioning	Ltd	Holloway Head		Feb-23
Tel: 078134378	303		Girl Guides		
			Job Ref: 3137		
Sheet 3	of	4	System:	Enginee	r:
			Lower Ground		AS
			MVHR2 Supply & Extract	Client:	TNA
Fan Ref:	MVHR2		Test Inst Type: Ane/Balom		

DESIGN				INITIAL		FINAL						
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%		
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m <sup>3</sup> /s			
SG3	BALOM	0.110	N/A	0.105	95	N/A	0.105	1.000	0.105	95		
SG4	BALOM	0.110	N/A	0.104	95	N/A	0.104	1.000	0.104	95		
SG5	BALOM	0.024	N/A	0.024	100	N/A	0.024	1.000	0.024	100		
EG9	0.042	0.110	2.619	2.700	103	2.700	0.113	1.000	0.113	103		
EG10	0.042	0.110	2.619	2.700	103	2.700	0.113	1.000	0.113	103		
EG11	BALOM	0.024	N/A	0.024	100	N/A	0.024	1.000	0.024	100		

**A & N** Project: Date: **Commissioning Ltd** Holloway Head Girl Guides Feb-23 **Job Ref** 3137 AS Engineer: Tel: 07813437803 Client: TNA System: Lower Ground MVHR2 Supply & Extract Sheet 4 of **SYSTEM SCHEMATIC** SG3 SG4 **MVHR EG10** EG9 **EG11** SG5

	A & N Commissioning Ltd				Project: Holloway Head				Date:			
Commission	oning L	<u>_td</u>	Hollow	ay Head				Feb-23				
Tel: 07813437803			Girl Gu									
Sheet 1	of	3	Job Ref: System: Mezzar				Enginee	r: AS				
			EF4				Client:	TNA				
Fan Ref:	EF4		Test Ins	t Type:	Micro							
			FAN TE	EST DIRE	ECT DRIN	/E						
Technical Deta	ils:	_										
Fan Manufacturer			NUAIRE	•	Motor Po	wer		N/S	kW			
Fan Type/Size			DE2-ES		Voltage			240	V			
Motor Manufacture	r		NUAIRE									
Motor Frame No		N	OT STAT									
Motor Serial No	T		5563874									
Electrical	Design		Actual									
Running Current (A	<del></del>	0.75	UTO	Descent		ln :	1	Ta ( )				
Speeds	Design	Actual		Pressu		Design		Actual				
Fan (rpm)	3200	UTO		Static He		N/S	Total	·*I - * / · \	N/A			
Motor (rpm)	3200	UTO	1	SP @ Inl	I '. /	N/A	SP @ Ou	· ,	N/A			
Duct Traverse	Height		Width		Duct			Duct				
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A			
								Total	N/A			
								No of				
								Readings	N/A			
								Average				
			REFER	TO NOTI	BELOV	<b>/</b>		Vel (m/s)	N/A			
								SP @Trav.	N/A			
				1				or will are	14/7 1			
		1		1								
		†		+			+					
AIR VOLUME			AIR VOL	.UME			AIR VOL	UME				

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.105

% OF DESIGN

ACTUAL (m<sup>3</sup>/s)

DESIGN (m³/s)

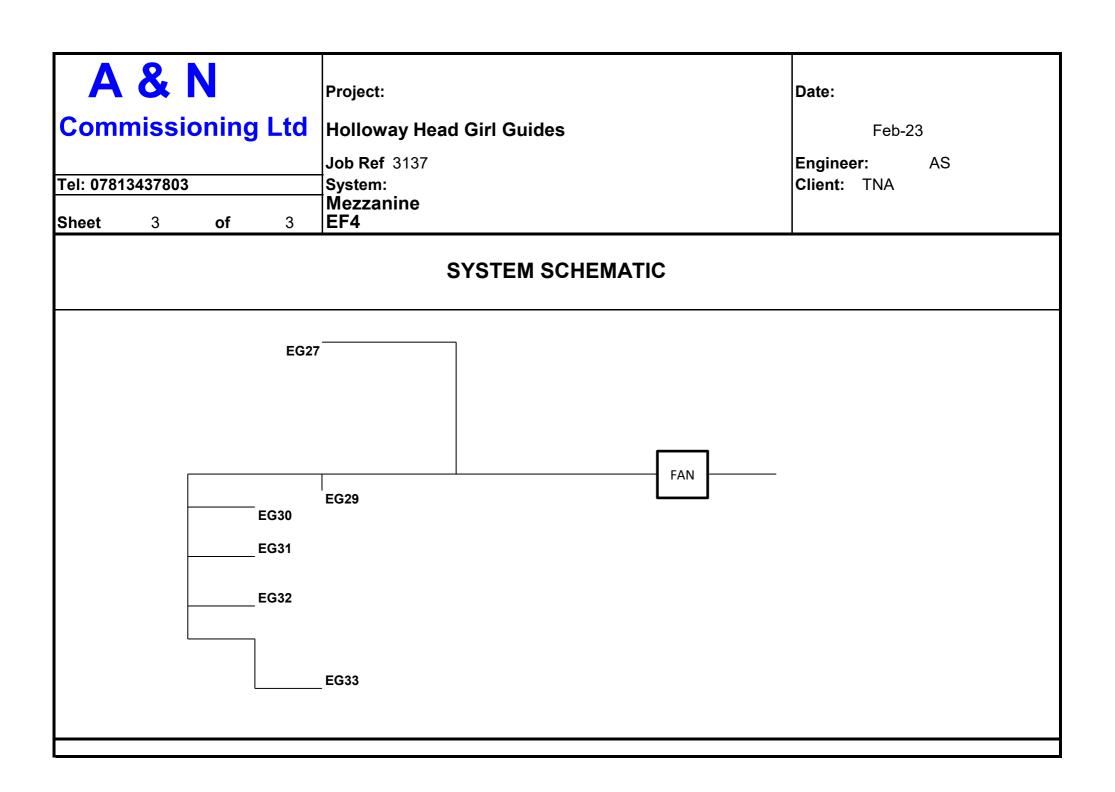
COMMENTS

0.105

100

A	&	N		Project:	Date:	
Comr	nissio	oning	Ltd	Holloway Head		Feb-23
Tel: 0781	3437803			Girl Guides		
				Job Ref: 3137		
Sheet	2	of	3	System:	Engine	er:
				Mezzanine		AS
				EF4	Client:	TNA
Fan Ref:		EF4		Test Inst Type: Ane/Balom		
				GRILLE / DIFFUSER TEST		

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	$m^2$	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
EG27	0.008	0.015	1.875	1.900	101	1.900	0.015	1.000	0.015	101
EG29	0.008	0.030	3.750	3.800	101	3.800	0.030	1.000	0.030	101
EG30	0.008	0.015	1.875	1.900	101	1.900	0.015	1.000	0.015	101
EG31	0.008	0.015	1.875	1.900	101	1.900	0.015	1.000	0.015	101
EG32	0.008	0.015	1.875	1.900	101	1.900	0.015	1.000	0.015	101
EG33	0.008	0.015	1.875	1.900	101	1.900	0.015	1.000	0.015	101



A	&	V		Project:				Date:		
Com	missio	oning L	.td	Hollow	ay Head				Feb-23	
Tel: 0781				Girl Gu						
				Job Ref:	3137					
Sheet	1	of	4	System:	! a			Enginee		
				Mezzan				Client:	AS TNA	
				INIVIRS	Supply			Client:	INA	
Fan Ref:		MVHR3		Test Inst	Туре:	Micro				
				FAN TE	ST DIRE	CT DRIN	/E			
Technic	cal Detai	ls:								
Fan Manı	ufacturer		N	OT STATI	ED	Motor Po	wer		N/S	kW
Fan Type	/Size		N	OT STATI	ED	Voltage			240	V
Motor Ma	nufacture	-	N	OT STATI	ED					
Motor Fra				OT STATI						
Motor Sei			N	OT STATI	ED					
Electric		Design		Actual						
•	Current (A	í	N/S	UTO						
Speeds		Design	Actual		Pressu	res	Design		Actual	
Fan (rpm		N/S	UTO		Static He		N/S	Total		N/A
Motor (rp		N/S	UTO	1	SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
Duct Tr	averse	Height		Width		Duct			Duct	
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
									Total	N/A
									No of	
									Readings	N/A
									Average	
				RFFFR :	TO NOTE	BFI OV	V		Vel (m/s)	N/A
						<u> </u>	Ī		SP @Trav.	N/A
									SF WITAV.	IN//A
			<u> </u>							
			<del> </del>							
AIR VOL	UME			AIR VOL	UME			AIR VOL	UME	
DESIGN	(m³/s)	0.2	50	ACTUAL	$(m^3/s)$	0.2	241	% OF DE	SIGN	96
COMMEN	NTS THE ABO	TURBO SP OVE TOTAL GS TAKEN (	MEASUR	ED VOLU	ME FOR F	FAN WAS	GAINED	VIA ADDI	ΓΙΟΝ OF AL	.L

Comm Tel: 07813 Sheet Fan Ref:		oning L	_ <b>td</b>	Hollow Girl Gu Job Ref: System: Mezzar MVHR3	: 3137 nine			Engines	Feb-23			
Tel: 07813	437803	of		Girl Gu Job Ref: System: Mezzar	ides : 3137 nine			Engines				
Sheet			4	Job Ref: System: Mezzar	: 3137 nine			Engines				
	2		4	Mezzan	nine			Engineer				
Fan Ref:				4	_			Enginee				
Fan Ref:				MALK				01:	AS			
Fan Ref:				]	) Extract			Client:	TNA			
		MVHR3		Test Inst	t Type:	Micro						
				FAN TE	EST DIRE	ECT DRIV	/E					
Technica	I Detai	ls:										
an Manufacturer				OT STAT	ED	Motor Pov	wer		N/S	kW		
	an Type/Size			OT STAT		Voltage			240	V		
Motor Manı		<u> </u>		OT STAT								
Motor Fram				OT STAT		<u> </u>			<u> </u>			
Motor Seria		<del>1</del>	N.	OT STAT	ED	<u> </u>						
Electrica		Design	- 1/0	Actual		<u> </u>						
Running Cu	urrent (A	<del>i                                      </del>	N/S	UTO	TD:::200111		<u> </u>	т	T			
Speeds		Design	Actual		Pressu		Design	<del> </del>	Actual	21/4		
Fan (rpm)	<u> </u>	N/S	UTO		Static He		N/S	Total	·41 a 4 / m a \	N/A		
Motor (rpm	<u> </u>	N/S	UTO	T	SP @ Inle	\ , ,	N/A	SP @ Ou	1 '' /	N/A		
Duct Trav	verse	Height		Width	21/2	Duct			Duct			
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A	<del> </del>	Area m <sup>2</sup>	N/A		
		ļ	<u> </u>	ļ	<u> </u>			<del>                                     </del>	Total	N/A		
				<u> </u>	<u> </u>			<u> </u>	No of			
									Readings	N/A		
								<u> </u>	Average			
				REFER	TO NOTE	E BELOW	7		Vel (m/s)	N/A		
									SP @Trav.	N/A		

DESIGN (m³/s) COMMENTS TURBO SPEED

0.250

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.254

AIR VOLUME

% OF DESIGN

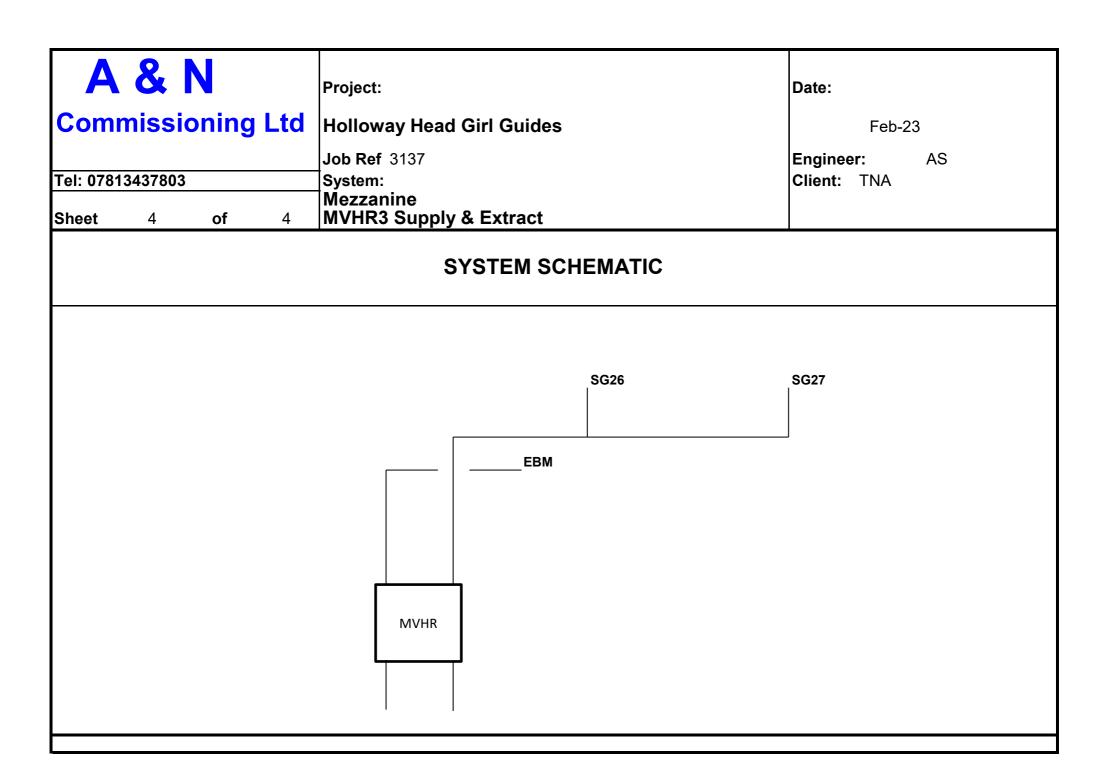
102

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

A	<b>&amp;</b> I	<u> </u>		Project:				Date:			
	missic		Ltd		v. Uaad						
		ming	Ltu	Hollowa	-				Feb-23		
Tel: 0781	3437803			Girl Gui Job Ref:							
Sheet	3	of	4	System: Mezzan				Enginee	r: AS		
				_	_	& Extra	ct	Client:	TNA		
Fan Ref:		MVHR3		Test Inst	Type:	Ane/Balon	n				
				GRILLE	/ DIFFU	ISER TE	ST				
DESIGN				INITIAL		FINAL					
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%	
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m <sup>3</sup> /s	Factor	m <sup>3</sup> /s		
SG26	BALOM	0.125	N/A	0.120	96	N/A	0.120	1.000	0.120	96	

## SG26 BALOM 0.125 N/A 0.120 96 N/A 0.120 1.000 0.120 96 SG27 BALOM 0.125 N/A 0.121 97 N/A 0.121 1.000 0.121 97 EBM 0.053 0.250 4.717 4.800 102 4.800 0.254 1.000 0.254 102



				1						
A	&	N		Project:				Date:		
Comr	nissi	oning L	.td	Hollowa	av Head				Feb-23	
Tel: 0781				Girl Gui	•					
	_	_	_	Job Ref:	3137			<u> </u>		
Sheet	1	of	4	System:	ino			Enginee		
				Mezzan	ine Supply			Client:	AS TNA	
					Supply			Cileiit.	TINA	
Fan Ref:		MVHR4		Test Inst	Type:	Micro				
				- A N - T-	OT DIDE	.OT DD!!	<i>,</i> _			
				FAN IE	SI DIRE	CT DRIN	/E			
Technic	al Detai	ls:								
Fan Manu				SAMSUN		Motor Pov	wer		N/S	kW
Fan Type				OT STATI		Voltage			240	V
Motor Mai		<u>r</u>		OT STATI						
Motor Fra				OT STATE						
Motor Ser		Danima	N	OT STATE	<u>-</u> υ					
Electric		Design	N/C	Actual						
Running (	Jurrent (A	<del></del>	N/S	UTO	Drocou	100	Dasian		A atual	
Speeds		Design	Actual		Pressu		Design	T-4-1	Actual	N1/A
Fan (rpm) Motor (rpr		N/S N/S	UTO UTO		Static He SP @ Inle		N/S N/A	Total SP @ Ou	ıtlet (na)	N/A N/A
Duct Tra			010	\\\/: altla	3F @ IIII	1	IN/A	3F @ 00	Duct	IN/A
	averse	Height	NI/A	Width	NI/A	Duct	NI/A		Area m <sup>2</sup>	NI/A
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A			N/A
									Total	N/A
									No of	
			<u> </u>						Readings	N/A
									Average	
				REFER T	TO NOTE	BELOV	<b>/</b>		Vel (m/s)	N/A
									SP @Trav.	N/A
AIR VOLU	JME		1	AIR VOL	L UME			AIR VOL	UME	
DESIGN (	(m³/s)	0.5		ACTUAL		0.5	541	% OF DESIGN 98		
	THE ABO	TURBO SF OVE TOTAL GS TAKEN (	MEASUR			AN WAS	GAINED	VIA ADDIT	TION OF AI	_L

<b>A &amp;</b>	N		Project:				Date:		
Commissi	onina L	td	Hollow	ay Head				Feb-23	
Tel: 07813437803			Girl Gu	-				1 05-20	
101. 07010407000			Job Ref:						
Sheet 2	of	4	System: Mezzar				Enginee	r: AS	
			MVHR4	Extract			Client:	TNA	
Fan Ref:	MVHR4		Test Ins	t Type:	Micro				
Technical Deta	ils:		FAN IE	SI DIKE	CT DRIN	/E			
Fan Manufacturer			SAMSUN	G	Motor Po	wer		N/S	kW
Fan Type/Size		N	OT STAT	ED	Voltage			240	V
Motor Manufacture	r	N	OT STAT	ED					
Motor Frame No			OT STAT						
Motor Serial No		N	OT STAT	ED					
Electrical	Design		Actual						
Running Current (A	-i	N/S	UTO	1_					
Speeds	Design	Actual		Pressu	res	Design		Actual	
Fan (rpm)	N/S	UTO		Static He		N/S	Total		N/A
Motor (rpm)	N/S	UTO	1	SP @ Inl	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
Duct Traverse	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
								Average	
			REFER	TO NOTI	BELOV	/		Vel (m/s)	N/A
								SP @Trav.	N/A

COMMENTS TURBO SPEED

0.550

AIR VOLUME

DESIGN (m<sup>3</sup>/s)

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.570

AIR VOLUME

% OF DESIGN

104

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

A	&	V		Project:				Date:			
Comi	missic	ning	Ltd	Hollowa	ay Head			Feb-23			
Tel: 0781				Girl Gui	ides						
Sheet	3	of	4	System:		Engineer:					
				Mezzan	ine				AS		
				MVHR4	Supply	& Extrac	ct	Client:	TNA		
Fan Ref:		MVHR4		Test Inst	Type:	Ane/Balon	า				
				GRILLE	/ DIFFU	ISER TE	ST				
DESIGN				INITIAL		FINAL					
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%	
	$m^2$	m <sup>3</sup> /s	m/s	m/s m3/s		m/s	m³/s	Factor	m <sup>3</sup> /s		
SC6	DALOM	0.275	NI/A	0.270	00	NI/A	0.270	1 000	0.270	00	

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m <sup>3</sup> /s	m/s	m/s m3/s		m/s	m³/s	Factor	m <sup>3</sup> /s	
SG6	BALOM	0.275	N/A	0.270	98	N/A	0.270	1.000	0.270	98
SG7	BALOM	0.275	N/A	0.271	99	N/A	0.271	1.000	0.271	99
EBM	0.300	0.550	1.833	1.900	104	1.900	0.570	1.000	0.570	104
						1				1

**A & N** Project: Date: **Commissioning Ltd** Holloway Head Girl Guides Feb-23 **Job Ref** 3137 AS Engineer: Tel: 07813437803 Client: TNA System: Mezzanine MVHR4 Supply & Extract Sheet 4 of **SYSTEM SCHEMATIC EBM** SG6 MVHR SG7

<b>A &amp;</b> I	N		Project:				Date:		
Commission	oning L	.td	Hollow	ay Head				Feb-23	
Tel: 07813437803			Girl Gu						
		4	Job Ref:				<u> </u>		
Sheet 1	of	4	System: Mezzar				Enginee	r: AS	
			_	Supply			Client:	TNA	
			INIVITIES	Juppiy			Ciletit.	IIVA	
Fan Ref:	MVHR5		Test Ins	t Type:	Micro				
			FAN TE	ST DIRE	CT DRIN	/E			
Technical Detai	ls:								
Fan Manufacturer		N	IOT STAT	ED	Motor Pov	wer		N/S	kW
Fan Type/Size		N	IOT STAT	ED	Voltage			240	V
Motor Manufacture	r	N	IOT STAT	ED					
Motor Frame No			IOT STAT						
Motor Serial No	T	N	IOT STAT	ED					
Electrical	Design		Actual						
Running Current (A	í	N/S	UTO	-		1		Г	
Speeds	Design	Actual		Pressu		Design		Actual	
Fan (rpm)	N/S	UTO		Static He		N/S	Total		N/A
Motor (rpm)	N/S	UTO	1	SP @ Inl	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Traverse</b>	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
			1					Average	
			REFER	TO NOTE	BELOV	/		Vel (m/s)	N/A
			T	1				SP @Trav.	N/A
								or willav.	IN//A
			+						
			1						
			1						
AIR VOLUME			AIR VOL	UME			AIR VOL	UME	
DESIGN (m <sup>3</sup> /s)	0.5	50	ACTUAL	$(m^3/s)$	0.5	543	% OF DE	ESIGN	99
COMMENTS THE ABO	TURBO SF OVE TOTAL GS TAKEN (	MEASUF			AN WAS	GAINED	VIA ADDI	TION OF ALI	

A &	N		Project:				Date:		
Commission	oning L	.td	Hollow	ay Head				Feb-23	
Tel: 07813437803			Girl Gu	-					
			Job Ref:						
Sheet 2	of	4	System:				Enginee		
			Mezzan	_			01:4.	AS	
			MVHKO	Extract			Client:	TNA	
Fan Ref:	MVHR5		Test Inst	Туре:	Micro				
			FAN TE	ST DIRE	ECT DRIV	/E			
Technical Detai	ls:								
Fan Manufacturer			OT STATI		Motor Pov	wer		N/S	kW
Fan Type/Size					Voltage			240	V
Notor Manufacturer			OT STATI		<u> </u>				
Motor Frame No			OT STATI		<u> </u>			<u> </u>	
Motor Serial No		N <sub>1</sub>	OT STATI	ED	<u> </u>				
Electrical	Design		Actual		<u> </u>				
Running Current (A	<del></del>	N/S	UTO	T			1, , ,		
Speeds	Design	Actual		Pressu			<u> </u>	Actual	
Fan (rpm)	N/S	UTO		Static He		N/S	Total	<u> </u>	N/A
Motor (rpm)	N/S	UTO		SP @ Inle		N/A	SP @ Ou	(1 /	N/A
Duct Traverse	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
	Γ	<u> </u>	Γ	T	<u> </u>	Γ	T	No of	
								Readings	N/A
							1	Average	
		<u> </u>	REFER <sup>-</sup>	TO NOTE	BELOW	<b>V</b>	†	Vel (m/s)	N/A
				T	<u></u>	-	+	SP @Trav.	N/A
							+	SP WITAV.	IN//\tau
	<u> </u>	<u> </u>	<del>                                     </del>	<u> </u>	<u> </u>		+	+	
	<u> </u>	<del>                                     </del>	<del>                                     </del>	1	<u> </u>		+	++	
<u> </u>			<u> </u>				<del> </del>	<del>                                     </del>	
								<u> </u>	

DESIGN (m³/s) COMMENTS TURBO SPEED

0.550

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.570

AIR VOLUME

% OF DESIGN

104

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

A	&	N		Project:	Date:
Comn	nissio	oning	Ltd	Holloway Head	Feb-23
Tel: 07813	3437803			Girl Guides	
		_		<b>Job Ref</b> : 3137	
Sheet	3	of	4	System:	Engineer:
				Mezzanine	AS
				MVHR5 Supply & Extrac	ct Client: TNA
Fan Ref:		MVHR5		Test Inst Type: Ane/Balom	1
				GRILLE / DIFFUSER TE	ST
DESIGN				INITIAI FINAI	

DESIGN				INITIAL		FINAL					
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%	
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s		
SG8	BALOM	0.275	N/A	0.271	99	N/A	0.271	1.000	0.271	99	
SG9	BALOM	0.275	N/A	0.272	99	N/A	0.272	1.000	0.272	99	
EBM	0.300	0.550	1.833	1.900	104	1.900	0.570	1.000	0.570	104	

**A & N** Project: Date: **Commissioning Ltd** Holloway Head Girl Guides Feb-23 **Job Ref** 3137 AS Engineer: Tel: 07813437803 Client: TNA System: Mezzanine MVHR5 Supply & Extract Sheet 4 of **SYSTEM SCHEMATIC EBM** SG9 MVHR SG8

				T						
A	&	N		Project:				Date:		
Comr	missio	oning L	.td	Hollowa	ay Head				Feb-23	
Tel: 0781				Girl Gui	•					
,			_	Job Ref:	3137			<u> </u>		
Sheet	1	of	4	System: Mezzan	·!na			Enginee		
					Supply			Client:	AS TNA	
					Supply			Ciletit.	IIVA	
Fan Ref:		MVHR6		Test Inst	Туре:	Micro				
				FAN TE	ST DIRE	CT DRIV	/E			
Technic	al Detai	ls:								
Fan Manu	ufacturer			SAMSUNG	3	Motor Pov	wer		N/S	kW
Fan Type				OT STATE		Voltage			240	V
Motor Ma	nufacture	<u>r</u>	N	OT STATE	ΞD					
Motor Fra				OT STATE						
					ED	<u> </u>				
	Electrical Design Running Current (A) N/S			Actual						
		<u> </u>	N/S	UTO		<u></u>		1	T	
Speeds		Design	Actual		Pressu		Design		Actual	
Fan (rpm)		N/S	UTO		Static He		N/S	Total		N/A
Motor (rpr		N/S	UTO	SP @ Inl		et (pa)	N/A	SP @ Ou	itlet (pa)	N/A
Duct Tra	averse	Height		Width		Duct			Duct	
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
									Total	N/A
									No of	
									Readings	N/A
									Average	
				REFER 1	TO NOTE	BELOV	V		Vel (m/s)	N/A
			1						SP @Trav.	N/A
									or wriav.	14// \
AIR VOLU	JME			AIR VOL	<u>.                                    </u>			AIR VOL	UME	
DESIGN	(m³/s)	0.5		ACTUAL		0.5	544	% OF DESIGN 99		
COMMEN	COMMENTS TURBO SPEED			ED VOLUME FOR FAN WAS GAINED \			VIA ADDIT	TION OF AI	LL	

A	&	N		Project:				Date:		
Comn	nissi	oning L	.td	Hollow	ay Head				Feb-23	
Tel: 07813				Girl Gu	•					
		_		Job Ref:	3137					
Sheet	2	of	4	System:				Enginee		
				Mezzan	iine Extract			Oli a satu	AS	
				INIVIRO	Extract			Client:	TNA	
Fan Ref:		MVHR6		Test Inst	:Type:	Micro				
				•				•		
				FAN TE	ST DIRE	CT DRIN	/E			
Technic	al Deta	ils:								
Fan Manu	facturer			SAMSUN	G	Motor Po	wer		N/S	kW
Fan Type/	Size		N	OT STAT	ED	Voltage			240	V
Motor Mar	nufacture	r	N	OT STAT	ED					
Motor Fran	me No		+	OT STAT						
Motor Seri			N	OT STAT	ED					
Electrica		Design		Actual						
Running C	Current (A		N/S	UTO				_		
Speeds		Design	Actual		Pressu	res	Design		Actual	
Fan (rpm)		N/S	UTO		Static He	и /	N/S	Total		N/A
Motor (rpn	Motor (rpm) N/S UTO		UTO	r	SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
Duct Tra	averse	Height		Width		Duct			Duct	
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
									Total	N/A
									No of	
									Readings	N/A

COMMENTS TURBO SPEED

0.550

AIR VOLUME

DESIGN (m<sup>3</sup>/s)

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.570

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

REFER TO NOTE BELOW

Average

Vel (m/s)

SP @Trav.

AIR VOLUME

% OF DESIGN

N/A

N/A

104

A	&	N		Project:				Date:		
Com	missi	oning	Ltd	Hollowa	y Head				Feb-23	
Tel: 0781	3437803			Girl Gui						
<b>.</b>	0		4	Job Ref:	3137			-		
Sheet	3	of	4	System:	-			Enginee		
				Mezzani	ine				AS	
				MVHR6	Supply	& Extrac	ct	Client:	TNA	
Fan Ref:		MVHR6		Test Inst	Туре:	Ane/Balon	า			
				GRILLE	/ DIFFU	JSER TE	ST			
DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	2	2					2		2	

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m <sup>3</sup> /s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG10	BALOM	0.275	N/A	0.271	99	N/A	0.271	1.000	0.271	99
SG11	BALOM	0.275	N/A	0.273	99	N/A	0.273	1.000	0.273	99
EBM	0.300	0.550	1.833	1.900	104	1.900	0.570	1.000	0.570	104

A Comr		N ioning L	.td	Project: Holloway Head Girl Guides Job Ref 3137	Date: Feb-23 Engineer: AS
Tel: 0781	3437803	3		System: Mezzanine	Client: TNA
Sheet	4	of	4	MVHR6 Supply & Extract	
				SYSTEM SCHEMATIC	
		SG10		EBM	
			SG11	MVHR	

				т —							
A	&	N		Project:				Date:			
Com	missi	oning L	.td	Hollowa	ay Head				Feb-23		
Tel: 0781				Girl Gui	•						
	•			Job Ref:							
Sheet	1	of	4	System:				Enginee			
				Mezzan					AS		
				MVHR7	Supply			Client:	TNA		
Fan Ref:		MVHR7		Test Inst	Туре:	Micro					
				FAN TE	ST DIRE	CT DRIN	/E				
Technic		ils:				<del></del>			<del>-</del>		
Fan Manı				SAMSUNG		Motor Po	wer		N/S	kW	
Fan Type			1	OT STATE		Voltage		240	V		
Motor Ma		r		OT STATE		<del>                                     </del>					
Motor Fra				OT STATE		<del> </del>					
Motor Sei		Design	IN	OT STATE	ED	<del>                                     </del>					
Electric		Design	N/S	Actual		<u> </u>					
Running (  Speeds		-í		UTO	Drocciii	700	Design	ı	Actual		
-					Pressu		Design	Total	Actual	N1/A	
Fan (rpm) Motor (rpi		N/S N/S	UTO UTO		Static He		N/S N/A	Total SP @ Ou	itlet (na)	N/A N/A	
			010	VA /: - 4 -	OF WITH	I '. /	IN/A	3F W C	· · ·	IN/A	
Duct Tra	averse	Height	N1/A	Width	NI/A	Duct	N1/A		Duct	N1/A	
TP1	I	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A	<u> </u>	Area m <sup>2</sup>	N/A	
			<u> </u>		<u> </u>	<del>                                     </del>			Total	N/A	
		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	No of		
			<u> </u>						Readings	N/A	
			l						Average		
				REFER <sup>-</sup>	TO NOTE	BELOV	V		Vel (m/s)	N/A	
								1	SP @Trav.	N/A	
					1						
					<del> </del>				<del>                                     </del>		
		+			1	+		+			
	<u> </u> 	+	<del>                                     </del>	-	1	<del>                                     </del>			+ +		
		<del>                                     </del>	<u> </u>		<del>                                     </del>	<del> </del>		+			
_		<del>                                     </del>	<u> </u>	_				_			
AIR VOLI				AIR VOL			- 40	AIR VOL			
DESIGN		0.5		ACTUAL	(m <sup>3</sup> /s)	0.5	548	% OF DE	ESIGN	100	
COMMEN	THE ABO	TURBO SP OVE TOTAL GS TAKEN (	MEASUR			FAN WAS	GAINED	VIA ADDI	TION OF AL	.L	

A & I	N		Project:				Date:			
Commission	onina L	td	Hollow	ay Head				Feb-23		
Tel: 07813437803			Girl Gui	-						
			Job Ref:							
Sheet 2	of	4	System:				Enginee			
			Mezzan	iine ′ Extract			Client	AS		
				Extract			Client:	TNA		
Fan Ref:	MVHR7		Test Inst	Type:	Micro					
			FAN TE	ST DIRE	CT DRIV	/E				
Technical Detai	ls:									
Fan Manufacturer			SAMSUNG		Motor Pov	wer		N/S	kW	
Fan Type/Size			IOT STATE		Voltage			240	V	
Motor Manufacture	<u>r                                    </u>		IOT STATE					<u> </u>		
Motor Frame No			IOT STATE		<del>                                     </del>			<u> </u>		
Motor Serial No <b>Electrical</b>	Design	IN	OT STATE	בט	<del> </del>					
Running Current (A		N/S	UTO							
Speeds	Design	Actual	1 0.0	Pressui	res	Design	T	Actual		
Fan (rpm)	N/S	UTO		Static He	ad (pa)	N/S	Total		N/A	
Motor (rpm)	N/S	UTO		SP @ Inle	/	N/A	SP @ Ou	ıtlet (pa)	N/A	
<b>Duct Traverse</b>	Height		Width		Duct			Duct		
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A	
								Total	N/A	
								No of		
								Readings	N/A	
								Average		
			REFER	TO NOTE	BELOV	V		Vel (m/s)	N/A	

DESIGN (m<sup>3</sup>/s) TURBO SPEED COMMENTS

0.550

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.570

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

Vel (m/s)

SP @Trav.

AIR VOLUME

% OF DESIGN

N/A

104

A	&	V		Project:				Date:				
Comi	missic	oning	Ltd	Hollowa	y Head			Feb-23				
Tel: 07813437803				Girl Guid								
				Job Ref:	3137			<u></u>				
Sheet	3	of	4	System:				Enginee	r:			
				Mezzani	ne				AS			
				MVHR7	Supply	& Extrac	et	Client:	TNA			
Fan Ref:		MVHR7		Test Inst	Туре:	Ane/Balom	1					
				GRILLE	/ DIFFU	JSER TE	ST					
DESIGN	_			INITIAL		FINAL		_				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%		
	2	3.					3.		3.			

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG12	BALOM	0.275	N/A	0.273	99	N/A	0.273	1.000	0.273	99
SG13	BALOM	0.275	N/A	0.275	100	N/A	0.275	1.000	0.275	100
EBM	0.300	0.550	1.833	1.900	104	1.900	0.570	1.000	0.570	104

Comr	niss	ioning	Ltd	Project: Holloway Head Girl Guides Job Ref 3137 System:	Date: Feb-23 Engineer: AS Client: TNA
Sheet	4	of	4	Mezzanine MVHR7 Supply & Extract	
				SYSTEM SCHEMATIC	
				EBM	
				SG13	
				MVHR SG12	

A & I	N		Project:				Date:		
Commission		.td	Hollowa	ay Head				Feb-23	
Tel: 07813437803			Girl Gui						
Sheet 1	of	4	Job Ref: System:	3137			Enginee	r:	
			Mezzan	ine				AS	
			MVHR8	Supply			Client:	TNA	
Fan Ref:	MVHR8		Test Inst	Tvpe:	Micro				
Technical Detai	ls:		_	_	_	_			
Fan Manufacturer		,	SAMSUN	G	Motor Po	wer		0.45	kW
Fan Type/Size		1A	N100JSKL	.KN	Voltage			240	V
Motor Manufacture	r	,	SAMSUN	G					
Motor Frame No		N	OT STATE	ED					
Motor Serial No			BSS8P8						
Electrical	Design		Actual						
Running Current (A	۸)	2.90	UTO						
Speeds	Design	Actual		Pressu	res	Design		Actual	
Fan (rpm)	N/S	UTO		Static He		N/S	Total		N/A
Motor (rpm)	otor (rpm) N/S UTO		_	SP @ Inl	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Traverse</b>	Height		Width		Duct			Duct	

						•			
Fan (rpm)	N/S	UTO		Static He	ad (pa)	N/S	Total		N/A
Motor (rpm)	N/S	UTO		SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Traverse</b>	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
								Average	
			REFER T	TO NOTE	BELOW	/		Vel (m/s)	N/A
								SP @Trav.	N/A
AIR VOLUME		•	AIR VOL	UME			AIR VOL	UME	
DESIGN (m³/s)	0.1	80	ACTUAL	$(m^3/s)$	0.1	93	% OF DE		107

COMMENTS TURBO SPEED

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

A	<u>&amp;</u> I	N		Project:		Date:					
Commi	issic	oning L	.td	Holloway Head	d		Feb-23				
Tel: 078134	37803			Girl Guides Job Ref: 3137							
Sheet	2	of	4	System: Mezzanine		Enginee	er: AS				
				MVHR8 Extrac	t	Client:	TNA				
Fan Ref:		MVHR8		Test Inst Type:	Micro						
				FAN TEST DIR	ECT DRIVE						
Technical	Detai	ls:									
Fan Manufa	cturer			SAMSUNG	Motor Power	r	0.45	kW			
Ean Typa/Si	70			ANIAOO ICIZI IZNI	\/oltogo		240	\/			

				OI DIIXE	.OI DIKIN	<i>'</i> _			
Technical Detai	ils:								
Fan Manufacturer			SAMSUN	G	Motor Po	wer		0.45	kW
Fan Type/Size		1A	N100JSKL	.KN	Voltage			240	V
Motor Manufacture	r		SAMSUN	G					
Motor Frame No		N	OT STATI	ED					
Motor Serial No			BSS8P8						
Electrical	Design		Actual						
Running Current (A	۸)	2.90	UTO						
Speeds	Design	Actual		Pressu	res	Design		Actual	
Fan (rpm)	N/S	UTO		Static He	ad (pa)	N/S	Total		N/A
Motor (rpm)	N/S	UTO		SP @ Inl	et (pa)	N/A	SP @ O	utlet (pa)	N/A
Duct Traverse	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
								Total	N/A
								No of	
								Readings	N/A
								Average	
			REFER T	TO NOTI	E BELOV	V		Vel (m/s)	N/A
								SP @Trav.	N/A

DESIGN (m³/s) COMMENTS TURBO SPEED

0.180

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.192

AIR VOLUME

% OF DESIGN

107

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

A	&	N		Project:				Date:				
Comi	missio	oning	Ltd	Hollowa	y Head			Feb-23				
Tel: 0781	3437803			Girl Gui	des							
				Job Ref:	3137							
Sheet	3	of	4	System:				Engineer	r:			
				Mezzani	ine				AS			
				MVHR8	Supply	& Extrac	ct	Client:	TNA			
Fan Ref:		MVHR8		Test Inst	Type:	Ane/Balon	า					
				GRILLE	/ DIFFU	JSER TE	ST					
DESIGN				INITIAL		FINAL						
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%		
	m <sup>2</sup>	m <sup>3</sup> /s	m/s	m/s m3/s		m/s	m <sup>3</sup> /s	Factor	m <sup>3</sup> /s			

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG22	BALOM	0.090	N/A	0.100	111	N/A	0.100	1.000	0.100	111
SG23	BALOM	0.090	N/A	0.093	103	N/A	0.093	1.000	0.093	103
EBM	0.048	0.180	3.750	4.000	107	4.000	0.192	1.000	0.192	107

**A & N** Project: Date: **Commissioning Ltd** Holloway Head Girl Guides Feb-23 **Job Ref** 3137 Engineer: AS Tel: 07813437803 Client: TNA System: Mezzanine MVHR8 Supply & Extract Sheet 4 of **SYSTEM SCHEMATIC SG23 SG22** MVHR **EBM** 

<b>A &amp; I</b>	N		Project:				Date:			
Commission	oning L	_td	Hollow	ay Head				Feb-23		
Tel: 07813437803			Girl Gui	ides						
			Job Ref:	3137						
Sheet 1	of	4	System: Mezzan	ino			Enginee	r: AS		
				Supply			Client:	TNA		
				Cuppij			Olielit.	LINA		
Fan Ref:	MVHR9		Test Inst	:Туре:	Micro					
			FAN TE	ST DIRE	CT DRIN	/E				
Technical Detai	ls:									
Fan Manufacturer			SAMSUN	G	Motor Po	wer		0.33	kW	
Fan Type/Size					Voltage			240	V	
Motor Manufacture		SAMSUN	G							
Motor Frame No										
Motor Serial No			BSS7P8S	Т						
Electrical	Design		Actual							
Running Current (A	<del></del>	2.10	UTO			_				
Speeds	Design	Actual		Pressu	res	Design		Actual		
Fan (rpm)	N/S	UTO		Static He	<u> </u>	N/S	Total		N/A	
Motor (rpm)	N/S	UTO		SP @ Inle	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A	
<b>Duct Traverse</b>	Height		Width		Duct			Duct		
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A	
	, ,							Total	N/A	
								No of		
			+					Readings	N/A	
		<del> </del>	+				+		1 1// 1	
	<u> </u>	<del>                                     </del>	<u>I</u> REFER <sup>-</sup>	 TO NOTE	 	<u> </u>	+	Average	<b>Ν</b> Ι / Λ	
		<del> </del>	T	TONOTE	T DELOV	V T	1	Vel (m/s)	N/A	
			<del> </del>					SP @Trav.	N/A	
			<u> </u>							
			<u> </u>							
			+							
AIR VOLUME			AIR VOL	LUME			AIR VOL	UME		

DESIGN (m³/s) COMMENTS TURBO SPEED

0.220

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.226

% OF DESIGN

ACTUAL (m<sup>3</sup>/s)

103

A &	N		Project:				Date:		
Commission	oning L	_td	Hollow	ay Head				Feb-23	
Tel: 07813437803	<u> </u>		Girl Gui	-					
			Job Ref:	3137					
Sheet 2	of	4	System:	•			Enginee		
			Mezzan	ine Extract			Client	AS	
			פאחעוווו	EXIIACI			Client:	TNA	
Fan Ref:	MVHR9		Test Inst	Type:	Micro				
			CAN TE	OT DIDE	CT DRIV	<b>/</b> -			
			FANIE	אוע ו 5.	CI DRIV	/E			
Technical Detail	ls:								
Fan Manufacturer			SAMSUNG	3	Motor Pov	wer		0.33	kW
Fan Type/Size			N080JSKL		Voltage			240	V
Motor Manufacture	r		SAMSUNG		ļ			<b></b>	
Motor Frame No			NOT STATED					<u> </u>	
Motor Serial No	To a sieure		BSS7P8S	<u>T</u>	<del> </del>			<u> </u>	
Electrical Running Current (A	Design	2.10	Actual UTO						
Speeds	Design	Actual	010	Pressui	res	Design	T	Actual	
Fan (rpm)	N/S	UTO		Static He		N/S	Total	/ total	N/A
Motor (rpm)	N/S	UTO		SP @ Inle		N/A	SP @ Ou	ıtlet (pa)	N/A
Duct Traverse	Height		Width		Duct			Duct	
TP1	(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
					`			Total	N/A
								No of	<u> </u>
							-	Readings	N/A
								Average	
			REFER	TO NOTE	BELOV	<b>/</b>		Vel (m/s)	N/A

DESIGN (m<sup>3</sup>/s) COMMENTS TURBO SPEED

0.220

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.240

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

Vel (m/s)

SP @Trav.

AIR VOLUME

% OF DESIGN

N/A

109

A	<b>&amp;</b> I	N		Project:		Date:		_
Comn Tel: 07813		ning l	Ltd	Holloway Hea Girl Guides Job Ref: 3137	ad		Feb-23	
Sheet	3	of	4	System: Mezzanine MVHR9 Supp	oly & Extract	Enginee Client:	er: AS TNA	
Fan Ref:		MVHR9		Test Inst Type:	Ane/Balom			_
				GRILLE / DIF	FUSER TEST			
DESIGN				INITIAL	FINAL			

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	m <sup>2</sup>	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG24	BALOM	0.110	N/A	0.116	105	N/A	0.116	1.000	0.116	105
SG25	BALOM	0.110	N/A	0.110	100	N/A	0.110	1.000	0.110	100
EG34	0.040	0.110	2.750	3.000	109	3.000	0.120	1.000	0.120	109
EG35	0.040	0.110	2.750	3.000	109	3.000	0.120	1.000	0.120	109

**A & N** Project: Date: **Commissioning Ltd** Holloway Head Girl Guides Feb-23 **Job Ref** 3137 AS Engineer: Tel: 07813437803 Client: TNA System: Mezzanine MVHR9 Supply & Extract Sheet 4 of **SYSTEM SCHEMATIC EG34 SG24** 

**EG35** 

**MVHR** 

**SG25** 

A	<b>&amp;</b> I	N		Project:				Date:		
Commissioning Ltd Tel: 07813437803				Holloway Head Girl Guides Job Ref: 3137			Feb-23			
Sheet 1 of 4				System: Mezzanine MVHR10 Supply			Engineer: AS Client: TNA			
Fan Ref:		MVHR10		Test Ins	t Type:	Micro				
Technic	cal Detai	ils:		FAN IE	EST DIRE	CIDRN	/E			
Fan Manı	ufacturer			NUAIRE Motor Power				N/S	kW	
Fan Type			MR XBOX			Voltage			240	V
	nufacture	r	NUAIRE							
Motor Fra				NOT STATED						
Electric		Design	I IN	NOT STATED Actual						
	Current (A	_	N/S	UTO						
Speeds		Design	Actual	1 0.0	Pressu	res	Design		Actual	
		N/S	UTO		Static He	ad (pa)	N/S	Total		N/A
Motor (rpm) N/S		N/S	UTO		SP @ Inl	et (pa)	N/A	SP @ Ou	ıtlet (pa)	N/A
<b>Duct Tr</b>	averse	Height		Width		Duct			Duct	
TP1		(mm)	N/A	(mm)	N/A	Dia (mm)	N/A		Area m <sup>2</sup>	N/A
									Total	N/A
									No of	

DESIGN (m<sup>3</sup>/s) COMMENTS SPEED SET

0.028

AIR VOLUME

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

0.032

AIR VOLUME

ACTUAL (m<sup>3</sup>/s)

REFER TO NOTE BELOW

N/A

N/A

N/A

114

Readings Average

Vel (m/s)

SP @Trav

AIR VOLUME

% OF DESIGN

			T		<u> </u>		
<b>A</b> 8	& N		Project:				
Commi	ssioning L	.td	Holloway Head				
Tel: 0781343	37803		Girl Guides Job Ref: 3137				
Sheet	2 <b>of</b>	4	System: Mezzanine MVHR10 Extra	ct	Engined Client:	er: AS TNA	
Fan Ref:	MVHR10		Test Inst Type:	Micro			
			FAN TEST DIR	ECT DRIVE			
Technical I	Details:						
Fan Manufac	turer		NUAIRE		N/S	kW	
Fan Type/Siz	e		MR XBOX	Voltage		240	V
Motor Manufa	acturer		NUAIRE				
Motor Frame	No	ı	NOT STATED				
Motor Serial I	No		NOT STATED				
Electrical	Design		Actual				

## Speeds Design Actual **Pressures** Design Actual Fan (rpm) UTO Static Head (pa) N/S N/S Total N/A Motor (rpm) N/S UTO SP @ Inlet (pa) N/A SP @ Outlet (pa) N/A **Duct Traverse** Duct Duct Height Width TP1 Area m<sup>2</sup> N/A N/A N/A N/A (mm) (mm) Dia (mm) N/A Total No of

N/S

UTO

N/A Readings Average REFER TO NOTE BELOW N/A Vel (m/s) N/A SP @Trav AIR VOLUME AIR VOLUME AIR VOLUME 0.034 0.033 103 DESIGN (m<sup>3</sup>/s) ACTUAL (m<sup>3</sup>/s) % OF DESIGN

COMMENTS SPEED SET

Running Current (A)

THE ABOVE TOTAL MEASURED VOLUME FOR FAN WAS GAINED VIA ADDITION OF ALL READINGS TAKEN ON OUTFIELD TERMINALS

A	&	N		Project:	Date: Feb-23			
Comm	nissio	oning	Ltd	Holloway Head				
Tel: 07813	437803			Girl Guides				
				Job Ref: 3137				
Sheet	3	of	4	System:	Enginee	r:		
				Mezzanine		AS		
				MVHR10 Supply & Extract	Client:	TNA		
Fan Ref: MVHR10				Test Inst Type: Ane/Balom				

## **GRILLE / DIFFUSER TEST**

DESIGN				INITIAL		FINAL				
Ref	Area	Vol	Vel	Vel / Vol	%	Vel	Vol	Cor.	CorVol	%
	$m^2$	m³/s	m/s	m/s m3/s		m/s	m³/s	Factor	m³/s	
SG17	0.008	0.005	0.625	0.700	112	0.700	0.006	1.000	0.006	112
SG16	0.008	0.005	0.625	0.700	112	0.700	0.006	1.000	0.006	112
SG18	0.008	0.005	0.625	0.700	112	0.700	0.006	1.000	0.006	112
SG21	0.008	0.013	1.625	1.700	105	1.700	0.014	1.000	0.014	105
EG22	0.008	0.010	1.250	1.300	104	1.300	0.010	1.000	0.010	104
EG23	0.008	0.010	1.250	1.300	104	1.300	0.010	1.000	0.010	104
EG24	0.008	0.013	1.625	1.700	105	1.700	0.014	1.000	0.014	105

A & N Commissio Tel: 07813437803		Project: Holloway Head Girl Guides Job Ref 3137 System: Mezzanine	Date: Feb-23 Engineer: AS Client: TNA
Sheet 4	of 4	MVHR10 Supply & Extract	
		SYSTEM SCHEMATI	IC
		SG17  EG23 SG16 SG18  MVHR  SG24	EG22