

SPACE STANDARDS

4 Lanark St

2 types of flats

FLAT NO.: x/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	GARDEN	HALL	STORE	TOTAL
Ceiling height (m)	2.75	2.75	2.75	nil	2.75	2.75	nil	2.75	2.75	2.75	
Orientation (windows)	N+S	W	n/a	nil	S+W	N	nil	N+S	n/a	nil	
Main dimensions (lxw)(m)	11.0x3.25	3.25x2.8	1.6x1.6	nil	3.25x2.775	3.25x2.775	nil	2.0x6.175	1.0x3.25	1.6x1	
Window dimensions (wxh)(m)	3.25x2.75; 2.0x2.75	n/a	nil	nil	1.6x0.8; 0.1	1.6x0.8	nil	2.0x2.75; 2.0	2.75x1.75	nil	
Gross floor area (m ²)	35.75	9.10	2.56	nil	9.02	9.02	nil	12.35	3.25	1.60	82.65
Gross volume (m ³)	98.31	25.03	7.04	nil	24.80	24.80	nil	33.96	8.94	4.40	227.28
Gross window area (m ²)	11.53	5.50	n/a	nil	3.34	1.28	nil	7.50	1.31	nil	30.46 *Window height varies
Net window area (glass) (m ²)	8.94	3.48	n/a	nil	2.64	1.05	nil	6.76	0.62	nil	23.49 * Frame width varies
window to floor area (%)	25.01	38.26	n/a	nil	29.27	11.64	nil	54.72	n/a	nil	158.91
Gross wall surface area (m ²)	54.45	0 w/ cabine	17.60	nil	33.14	33.14	nil	nil			138.33 *Doors 1.672m ²
Intensity of Occupancy (persons h	0.16	0.62	2.20	nil	0.63	0.63	nil	0.46	1.73	3.52	0.07 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.01	0.04	0.14	nil	0.04	0.04	nil	0.03	0.11	0.23	0.00

Occupant Scenario

Steven 3/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	GARDEN	HALL	STORE	TOTAL
Net window area (unshaded) (m ²)	5.36	3.13	n/a	n/a	2.38	1.05	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	15	34	n/a	n/a	26	12	nil	nil	n/a	n/a	87
Covered surface area (m ²)	3.69	n/a			5.60	5.40	nil	nil			14.69
Net wall surface area (%)	93.22	n/a			83.10	83.71	nil	nil			
Furniture volume (m ³)	5.37	7.92	1.45		3.14	2.98	nil	2.00			
Net volume (m ³)	92.94	17.11	5.59		21.67	21.83	nil	31.96			
Net volume (%)	94.54	68.35	79.38		87.36	88.00	nil	94.11			

FLAT NO.: x/2	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	GARDEN	HALL	STORE	TOTAL
Ceiling height (m)	2.75	2.75	2.75	nil	2.75	2.75	nil	2.75	2.75	2.75	
Orientation (windows)	N+S	E	n/a	nil	S+E	N	nil	N+S	n/a	nil	
Main dimensions (lxw)(m)	11.0x3.25	3.25x2.8	1.6x1.6	nil	3.25x2.775	3.25x2.775	nil	2.0x6.175	1.0x3.25	1.6x1	
Window dimensions (wxh)(m)	3.25x2.75; 2.0x2.75	n/a	nil	nil	1.6x0.8; 0.1	1.6x0.8	nil	2.0x2.75; 2.0	2.75x1.75	nil	
Gross floor area (m ²)	35.75	9.10	2.56	nil	9.02	9.02	nil	12.35	3.25	1.60	82.65
Gross volume (m ³)	98.31	25.03	7.04	nil	24.80	24.80	nil	33.96	8.94	4.40	227.28
Gross window area (m ²)	11.53	5.50	n/a	nil	3.34	1.28	nil	7.50	1.31	nil	30.46 *Window height varies
Net window area (glass) (m ²)	8.94	3.48	n/a	nil	2.64	1.05	nil	6.76	0.62	nil	23.49 * Frame width varies
window to floor area (%)	25.01	38.26	n/a	nil	29.27	11.64	nil	54.72	n/a	nil	158.91
Gross wall surface area (m ²)	54.45	0 w/ cabine	17.60	nil	33.14	33.14	nil	nil			138.33 *Doors 1.672m ²
Intensity of Occupancy (persons h	0.16	0.62	2.20	nil	0.63	0.63	nil	0.46	1.73	3.52	0.07 No.Occupants*Hrs/Volume (m3)
Occupancy Level (persons/m3)	0.01	0.04	0.14	nil	0.04	0.04	nil	0.03	0.11	0.23	0.00

Occupant Scenario

Kilmartin 5/1	LVRM	KIT	BATH	TOILET	BED 1	BED 2	BED 3	GARDEN	HALL	STORE	TOTAL
Net window area (unshaded) (m ²)	4.47	2.32	n/a	n/a	?	0.26	nil	nil	n/a	n/a	7.16 * Frame width 0.16m; 0.2m; 0.1m
window to floor area (unshaded%)	13	25	n/a	n/a	?	3	nil	nil	n/a	n/a	41
Covered surface area (m ²)	7.55	n/a			?	5.40	nil	nil			12.95
Net wall surface area (%)	86.13	n/a			?	83.71	nil	nil			
* Bdrm 2: unavailable to go in; but 2nd visit found it quite cluttered											
Furniture volume (m ³)	4.39	8.85	1.45		nil	2.35	nil	2.00			
Net volume (m ³)	93.92	16.18	5.59		nil	22.45	nil	31.96			

Net volume (%)	95.53	64.64	79.38	nil	90.52	nil	94.11	
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4 LANARK STREET

Temperature (°C), Relative Humidity (%), CO₂ Levels (ppm)

30-10-2006: Cloudy/Windy 12°C 92%RH / 02-11-2006: Sunny/Cool 8°C 66%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)			Garden Room		
			Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)
1	Steven	3/2	21.3	55.6	760.0	21.9	55.2	700.0	21.8	54.9	1030.0	21.8	53.1	710.0	22.0	52.5	720.0	16.8	61.4	560.0
2	Kilmartin	5/1	22.9	44.0	1130.0	22.6	44.1	1280.0	23.0	44.8	1210.0	nil	nil	nil	18.1	52.2	1110.0	16.4	36.5	630.0
			22.1	49.8	945.0	22.3	49.7	990.0	22.4	49.9	1120.0	21.8	53.1	710.0	20.1	52.3	915.0	16.6	49.0	595.0

Home Habits

No.	Name	Flat	# Occpts	At home/out (hrs)	
				weekday	weekend
1	Steven	3/2	1	22/2	22/2
2	Kilmartin	5/1	1	9/15	9/15 *Working 15 hours - shift work

Heating

No.	Name	Flat	# Occpts	# Rooms	Rooms/spaces with heating (#/on[1]-off[0]-broken[n])								Time of year (ON)	Time of day (ON)	Level of heating in each room/space						Thermostat (°C/adjust °C)		
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Hallway	Sunspace			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3		Hallway	Sunspace
1	Steven	3/2	1	6	UF(1/1)	UFUF(1/1)	CH (1/1)	UF (1/0)	UF (1/1)				All year	Morning - Night	25°C	25°C	level 3	0°C	10-15°C				varies (4)
2	Kilmartin	5/1	1	6	UF(1/1)	UFUF(1/0)	CH (1/0)	UF (1/0)	UF (1/1)				Sep - May	All day	25°C	0°C	level 0	0°C	20-25°C				varies (4)

CH - central gas heating
 EF - electric fire
 ES - electric storage
 E - electric (plug-in)
 GF - gas fire
 UF - underfloor CH

Access to sunlight

No.	Name	Flat	# Occpts	# Rooms	Orientation of windows (N/S/E/W)								Scale Rating (1-5)					
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Hallway	Garden	access to sunlight	outdoor/good light	private outdoor	communal outdoor		
1	Steven	3/2	1	6	N+S	W		S+W	N						5	5	5	4
2	Kilmartin	5/1	1	6	N+S	E		S+E	N						5	5	5	5

Windows and Ventilation

No.	Name	Flat	# Occpts	# Rooms	Windows open (#/open[1]-closed[0]/trickle vent [o][c][n])							Wall Vents (Y)(B-boarded up)				Trickle Vents (unused)			Extract Fans [1][0]		Passive Stack	Dehumidifier	Heat Recovery Kit/Bdrms/Lvrm	
					Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Sunspace	unaware	access				Kitchen
1	Steven	3/2	1	6	S-6/1/n	N-2/5/0/n			3/1/n	1/0/n									0	P/0	0		0	MS/1
2	Kilmartin	5/1	1	6	S-6/0/n	N-2/5/1/n			3/0/n	1/1/n									0	P/n	0		0	MS/0

Extract fans

AH - Auto-humidistat control extract
 AT - Auto-timer extract
 MS - manual switch extract
 P - pull chord extract

Humidity

No.	Name	Flat	# Occpts	Laundry Method [1][B]			loads/time (per week)	Location	Drying Method				loads/time (per week)	Surface Condensation		
				Washer	Hand	Lauderette			W-D [1][0]	TD-[p][f][n]/[1][0][B]	hang dry-[o][i][ch][cl]	radiators-[0][hh]		windows	walls	clothes
1	Steven	3/2	1	1			1/3 days	N - Lobby			i/ch (bdm2)	1/3 days				
2	Kilmartin	5/1	1	1			2/1 day	Y			1 s/1	2/1 day	Y-bd2			

B-broken
 W-D - washer and tumble dryer
 TD - separate tumble dryer [plumbed-in][flexible hose][no ventilation system][self condenser]/heat benefit [0-no][1-yes][B-broken]
 hang dry - [outdoors][indoors][close horse][closet space][drying room][hang][pulley][drying area][boiler closet]
 radiators - [0 heat change][heat higher]
 * Purpose duct but used as flexible hose system

Acoustic Insulation

No.	Name	Flat	# Occpts	Noise (Y)	Scale Rating	
					Frequency	Disturbance
1	Steven	3/2	1	Y	3	2
2	Kilmartin	5/1	1	Y	5	5

Stress-Positive/Negative Scale-Well-being

No.	Name	Flat	# Occpts	Smokers	Cigarettes (per day)	Alcohol (units/week)	Pets (#)	Level of control in house (scale rating)		Perception and Emotions (scale rating)						Ailments (avg scale rating)						
								unexpected	lack control (sum/avg)	stress level (sum/avg)	Enthusias	Proud	Irritable	Ashamed	Alert/Atter	Upset	Nervous	Scared/Af	Average	1 Cause	Regular di	P Drugs
1	Steven	3/2	1			0	0	2	6 (1.5)	3 (1)	5	5	1	1	5	1	1	2	47 (2.76)	Y	Y	Y
2	Kilmartin	5/1	1	Y	varies	0	0	3	11 (2.75)	3 (1)	3	3	3	1	5	2	1	1	37 (2.18)	Y		

4 LANARK STREET

Temperature (°C), Relative Humidity (%), CO₂ Levels (ppm)

20-03-2007 Sunny/clear/cool 2°C/58%RH; 26-04-2007 Sunny/clear/breezy 12°C/54%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)			Garden Room		
			Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)
1	Steven	3/2	21.5	37.1	1490.0	22.1	36.2	1270.0	21.8	54.6	930.0	22.4	33.1	1070.0	20.9	33.0	820.0	15.2	23.2	680.0
2	Kilmartin	5/1	18.5	41.0	700.0	18.5	40.6	680.0	18.7	45.1	690.0	18.4	42.2	700.0	18.2	44.5	710.0	16.3	34.3	590.0
			20.0	39.0	1095.0	20.3	38.4	975.0	20.2	49.9	810.0	20.4	37.6	885.0	19.5	38.8	765.0	15.8	28.7	635.0

4 LANARK STREET RESULTS (Energy Efficiency & Air Quality)

Users's habits vs. Energy Efficiency / User's habits vs. Air Quality

4 Lanark St

Temperature (°C), Relative Humidity (%), CO₂ Levels (ppm)

30-10-2006: Cloudy/Windy 12°C 92%RH / 02-11-2006: Sunny/Cool 8°C 66%RH

No.	Name	Flat	Living Room			Kitchen			Bathroom			Bedroom 1			Bedroom 2 (nearest front door)			Garden Room		
			Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)	Temp (°C)	RH (%)	CO ₂ (ppm)
1	Steven	3/2	21.3	55.6	760.0	21.9	55.2	700.0	21.8	54.9	1030.0	21.8	53.1	710.0	22.0	52.5	720.0	16.8	61.4	560.0
2	Kilmartin	5/1	22.9	44.0	1130.0	22.6	44.1	1280.0	23.0	44.8	1210.0	nil	nil	nil	18.1	52.2	1110.0	16.4	36.5	630.0
			22.1	49.8	945.0	22.3	49.7	990.0	22.4	49.9	1120.0	21.8	53.1	710.0	20.1	52.3	915.0	16.6	49.0	595.0

Home Habits

# Flats	At home/out (hrs)	
	weekday	weekend
2	15.5	15.5
	15.5	15.5

Heating

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Rooms/spaces with heating (#/on[1]-off[0]-broken[n])										Time of year (ON)	Time of day (ON)		Level of heating in each room/space							Thermostat (°C/adjust °C)		
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Hallway	Sunspace	Lvrm	Kitchen		Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Hallway	Sunspace	°C/adjust	thermostats/flat				
2	1	6 UF (1/1) (1/0)	2									Sep-May	1 All day	1 25°C	2	1								varies	4 thermostats/flat
	1	6 UF (1/1)		1			2	2				All year	1 Morn-Night	1 10-15°C								1			
		UF (1/0)		1										20-25°C											
		CH (1/1)				1								0°C		1		2							
		CH (1/0)				1								level 3											
		CH (1/0)												level 0											

Access to sunlight

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Orientation of windows (N/S/E/W)								Scale Rating (1-5)				
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Hallway	Garden	access to sunlight	outdoor/good light	private outdoor	communal outdoor	
2	1	6 N+S	2								2	5	5	5	4.5
	1	6 W		1								5	5	5	n/a
		E		1											
		S+W				1									
		S+E				1									
		N					2								

Windows and Ventilation

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Windows open (#/open[1]-closed[0]/trickle vent [o][c][n])							Wall Vents (Y)(B-boarded up)					Trickle Vents (unused)			Extract Fans [1][0]		Passive Stack	Dehumidifier	Heat Recovery		
			Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Bedrm 3	Sunspace	Lvrm	Kitchen	Bathroom	Bedrm 1	Bedrm 2	Sunspace	unsure	unaware	access	Kitchen	Bathrm				
2	1	6 S-6/1/n N-2	1															P/0	1		0		0 MS/1	1
	1	6 S-6/0/n N-2	1															P/n	1				MS/0	1
		5/0/n		1																				
		5/1/n		1																				
		3/1/n					1																	
		3/0/n					1																	
		1/0/n										1												
		1/1/n										1												

Extract fans

AH - Auto-humidistat control extract
 AT - Auto-timer extract
 MS - manual switch extract
 P - pull chord extract

Humidity

# Flats	# Occp (avg/flat)	# Rooms (per apt)	Laundry Method [1][B]			loads/time (per wash/week)	Location	Drying Method				loads/time (per wash/week)	Surface Condensation				
			Washer	Hand	Lauderette			W-D [1][0]	TD-[p][f][n]/[1][0][B]	hang dry-[o][i][ch][cl radiators-[0][hh]	per wash/week		windows	walls	clothes		
2	1	6	2			1.5	2	1	1 s/1		i/ch (bdrm2)	1.5	2	Y-bd2			
	1	6				1.5	2					1.5	2	1			

B-broken
 W-D - washer and tumble dryer
 TD - separate tumble dryer [plumbed-in][flexible hose][no ventilation system]/heat benefit [0-no][1-yes][B-broken]
 hang dry - [outdoors][indoors][close horse][closet space][drying room][hang][pulley][drying area]

