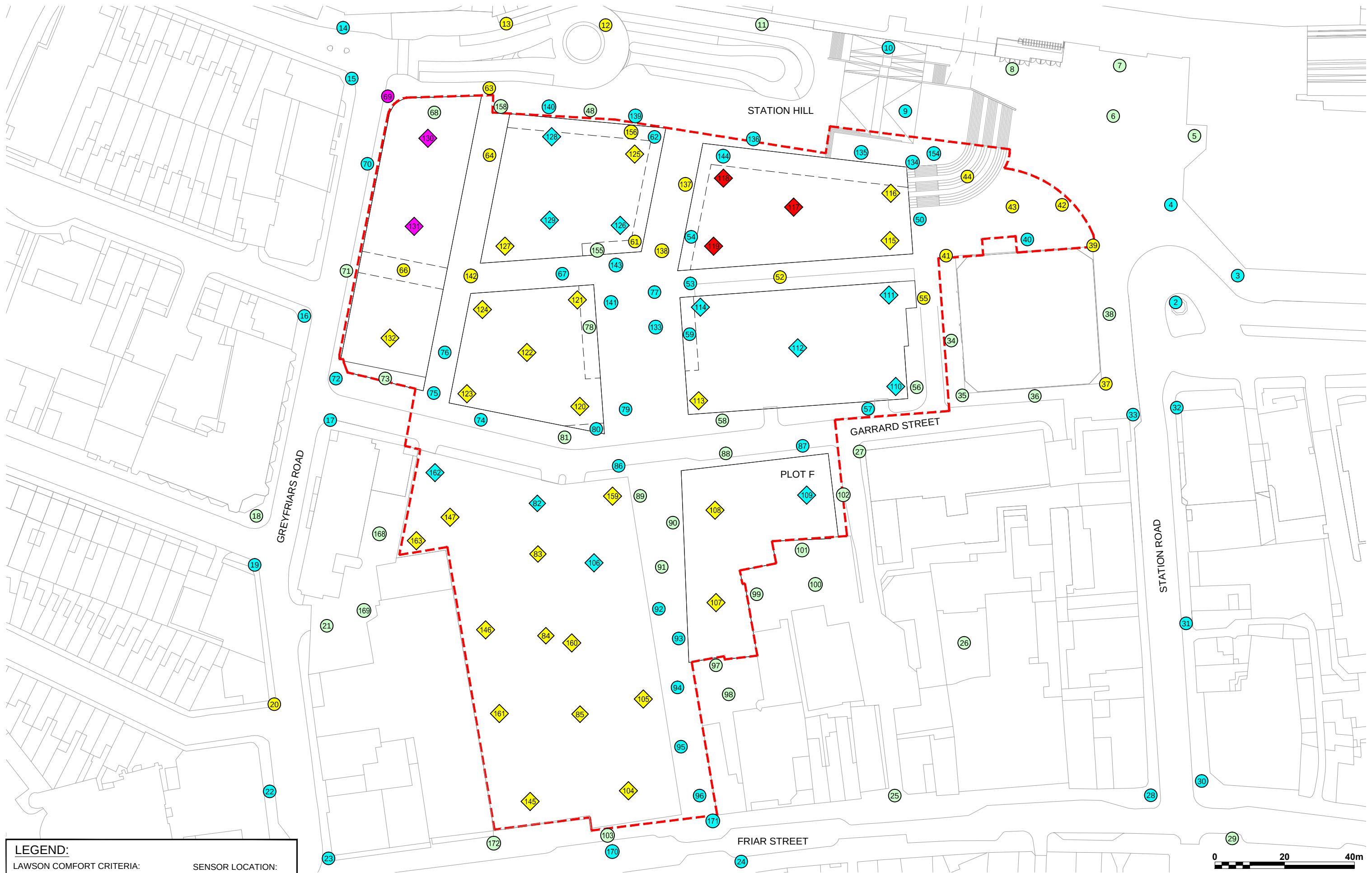




LEGEND:

LAWSON COMFORT CRITERIA:

- Sitting
- Standing/Entrance
- Leisure Walking
- Business Walking
- Carpark/Roadway

SENSOR LOCATION:

- Grade Level
- Podium Level
- Terrace/Balcony Level

Pedestrian Wind Comfort Conditions - Configuration 4: Completed Development (maximum parameter) with Cumulative Surrounding Buildings. Windiest Season

Station Hill Plot E - Reading, United Kingdom

True North

0 20 40m

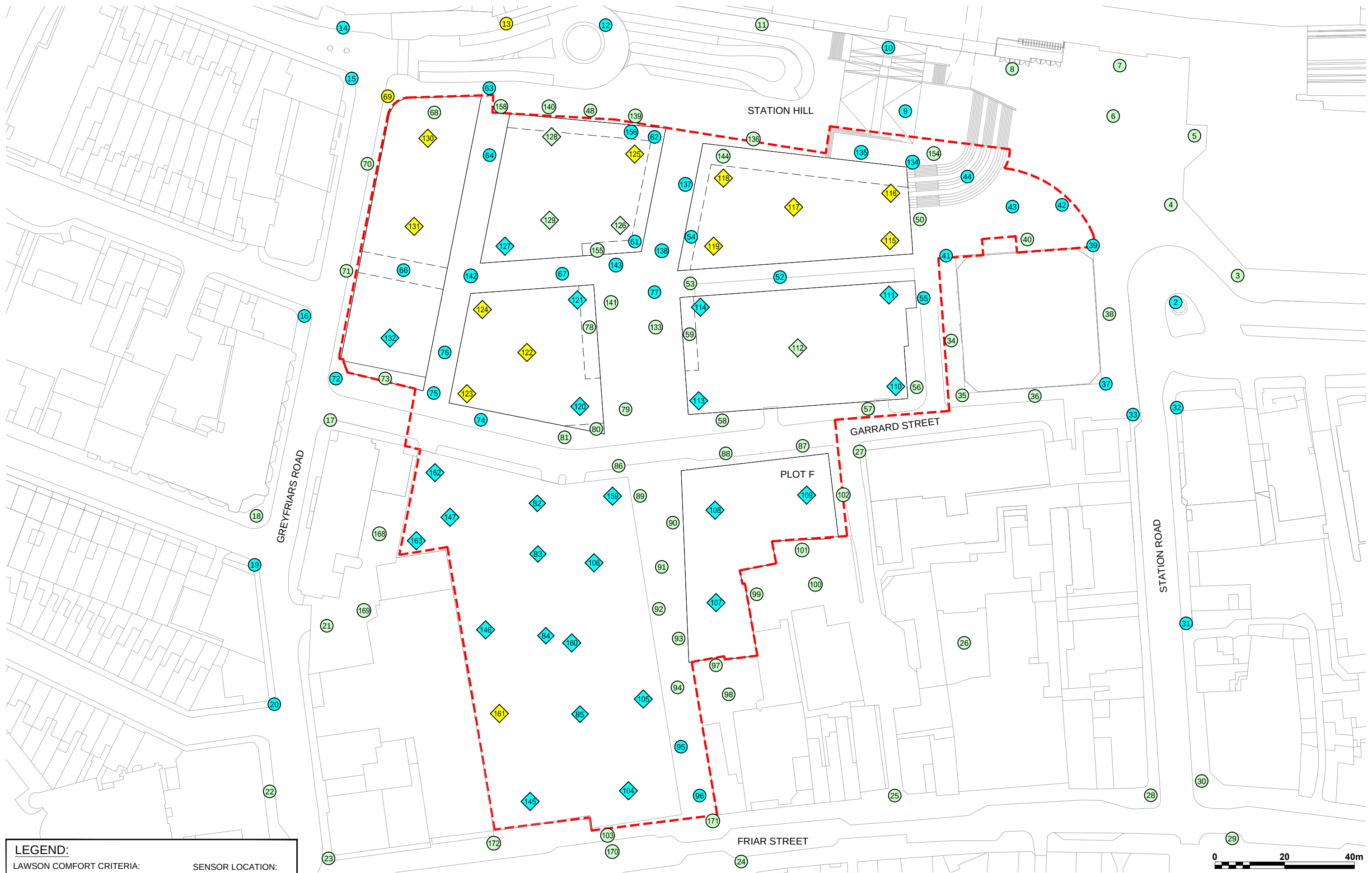
Drawn by: SM Figure: 9

Approx. Scale: 1:1000

Date Revised: June 19, 2015

Project #1402222

RWDI



LEGEND:
LAWSON COMFORT CRITERIA:
Sitting
Standing/Entrance
Leisure Walking
Business Walking
Carpark/Roadway

SENSOR LOCATION:
Grade Level
Podium Level
Terrace/Balcony Level

Pedestrian Wind Comfort Conditions - Configuration 4: Completed Development (maximum parameter) with Cumulative Surrounding Buildings. Summer Season

Station Hill Plot E - Reading, United Kingdom

True North

0 20 40m

Drawn by: SM Figure: 10
Approx. Scale: 1:1000
Date Revised: June 19, 2015

Appendix A: Photographs of the Wind Tunnel Model



Figure 11: Future Baseline (Configuration 1) – View in the Wind Tunnel (from the South)



Figure 12: Future Baseline (Configuration 1) – View in the Wind Tunnel (from the South, overhead)

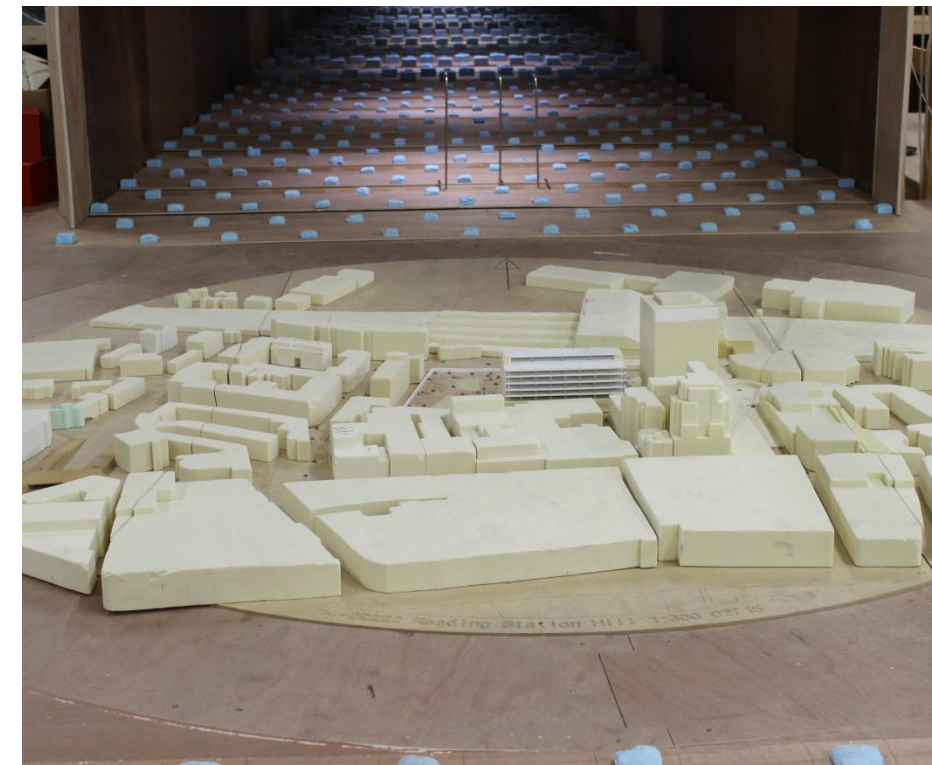


Figure 13: Temporary scenario with temporary events space (Configuration 2) – View in the Wind Tunnel (from the South)



Figure 14: Temporary scenario with temporary events space (Configuration 2) – View in the Wind Tunnel (from the South, overhead)

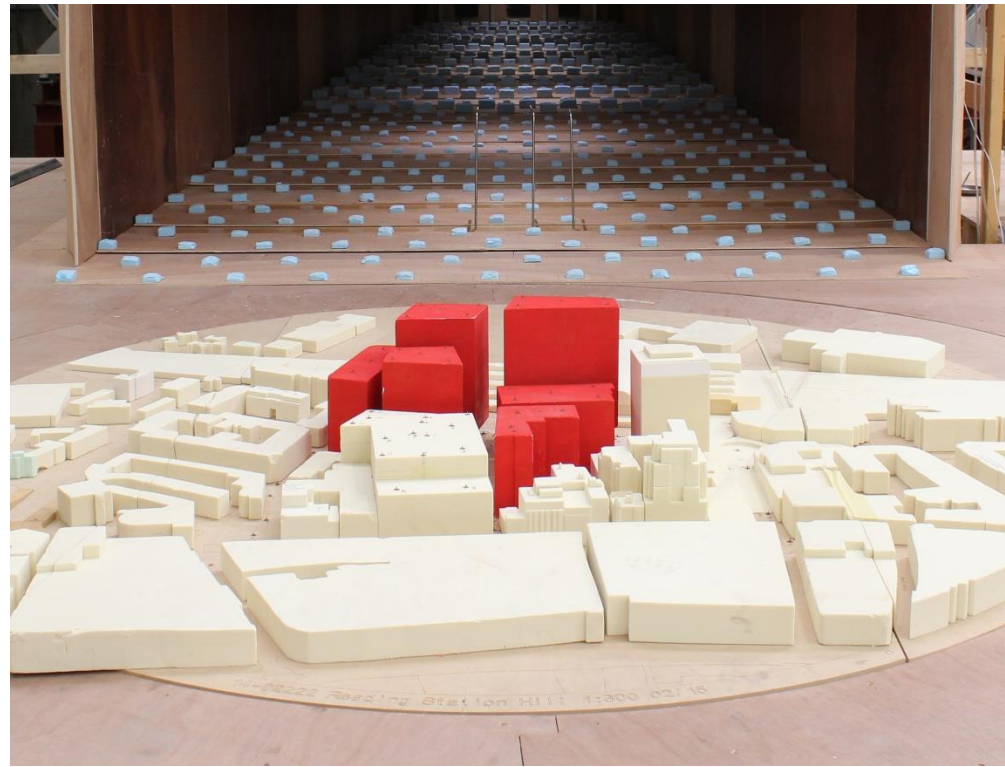


Figure 15: Completed Development (maximum parameter massing) with existing surrounds (Configuration 3) – View in the Wind Tunnel (from the South)

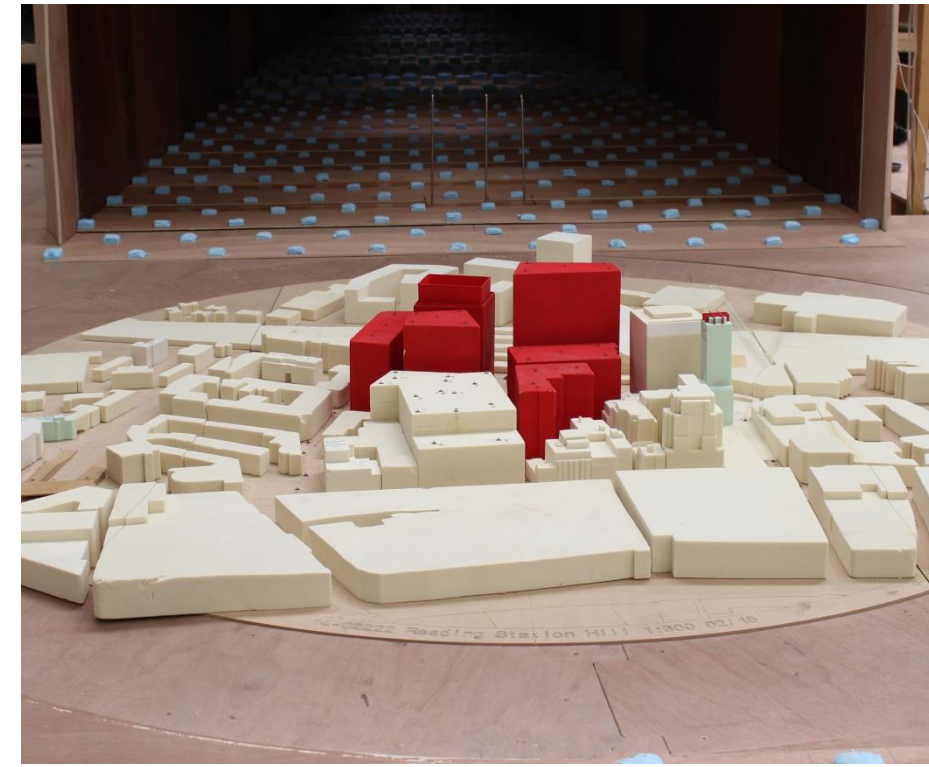


Figure 17: Completed Development (maximum parameter massing) with cumulative surrounds (Configuration 4) – View in the Wind Tunnel (from the South)

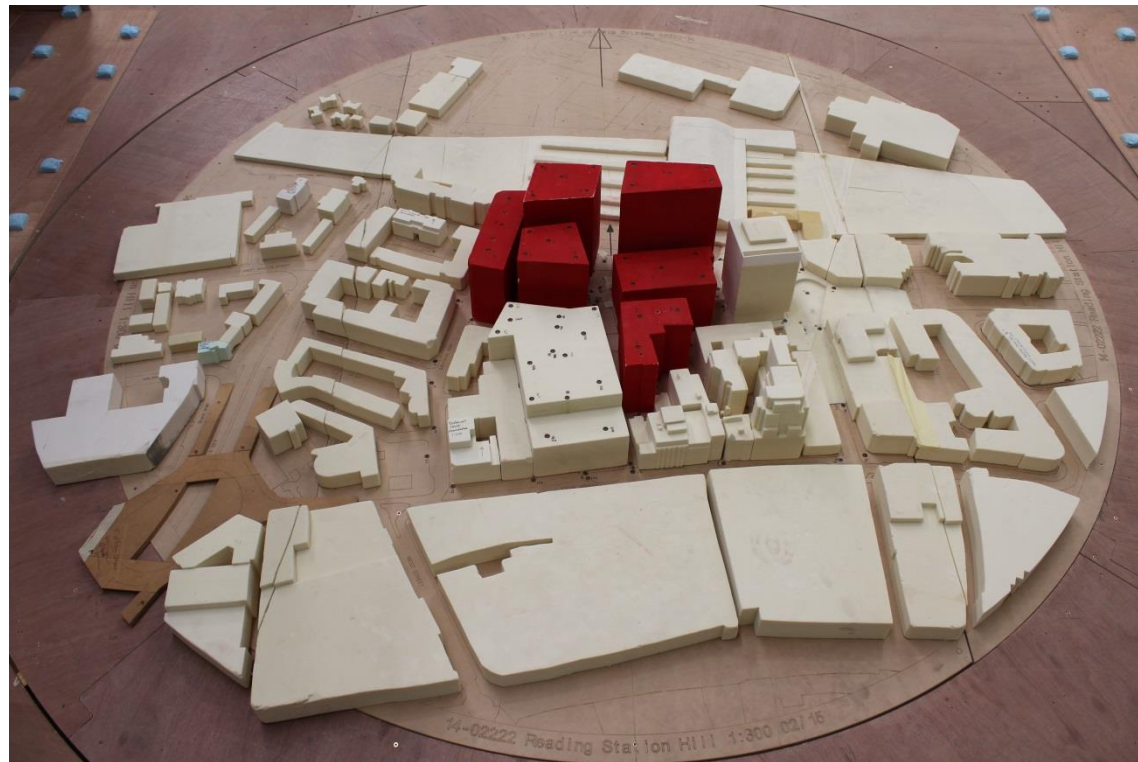


Figure 16: Completed Development (maximum parameter massing) with existing surrounds (Configuration 3) – View in the Wind Tunnel (from the North, overhead)

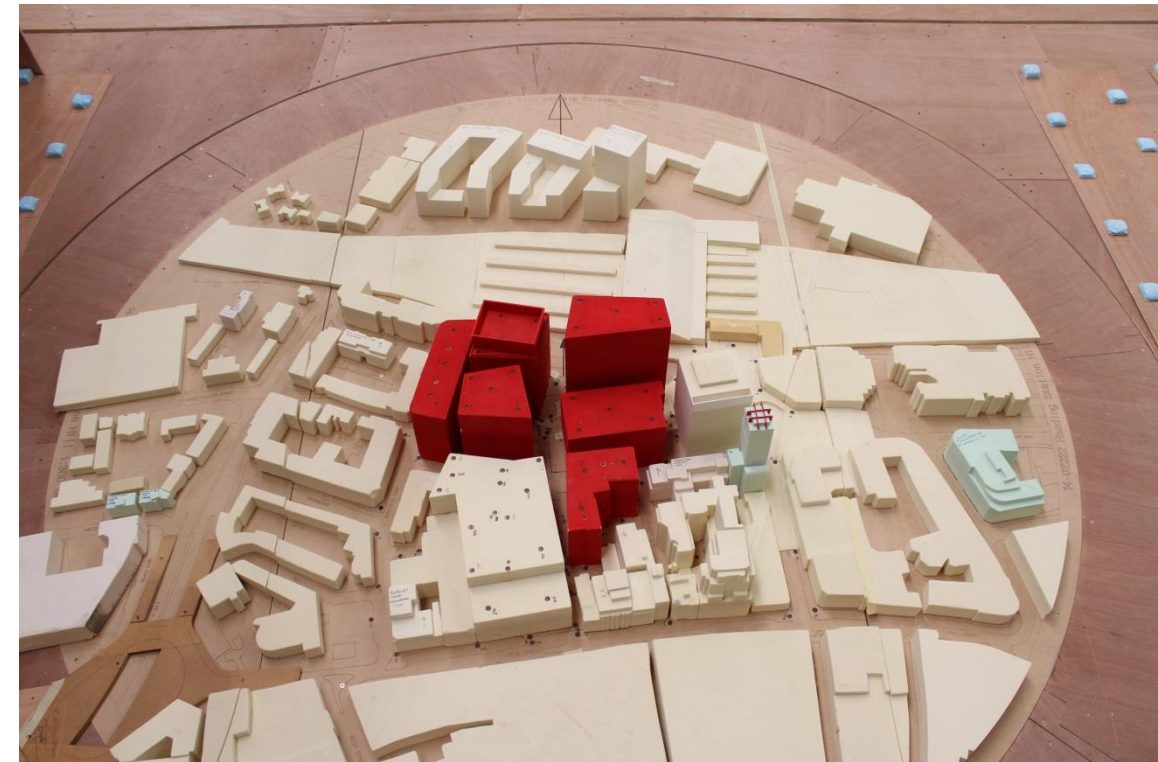


Figure 18: Completed Development (maximum parameter massing) with cumulative surrounds (Configuration 4) – View in the Wind Tunnel (from the South, overhead)

Appendix B: Meteorological Data

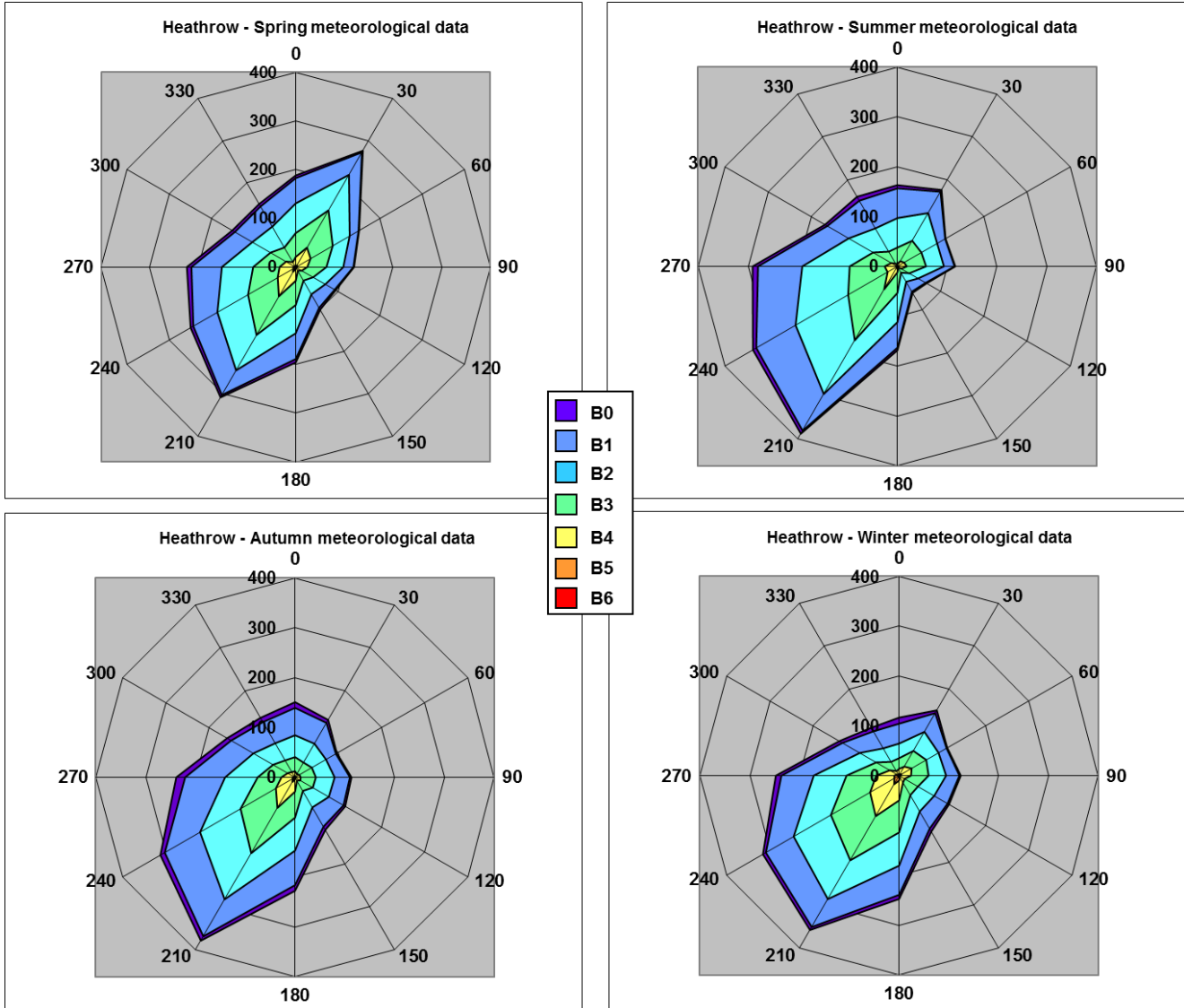


Figure 19:Seasonal wind roses for London Heathrow (in Beaufort Force)
(Radial axis indicates the hours for which the stated Beaufort Range is exceeded)

Appendix C: Lawson Comfort Criteria

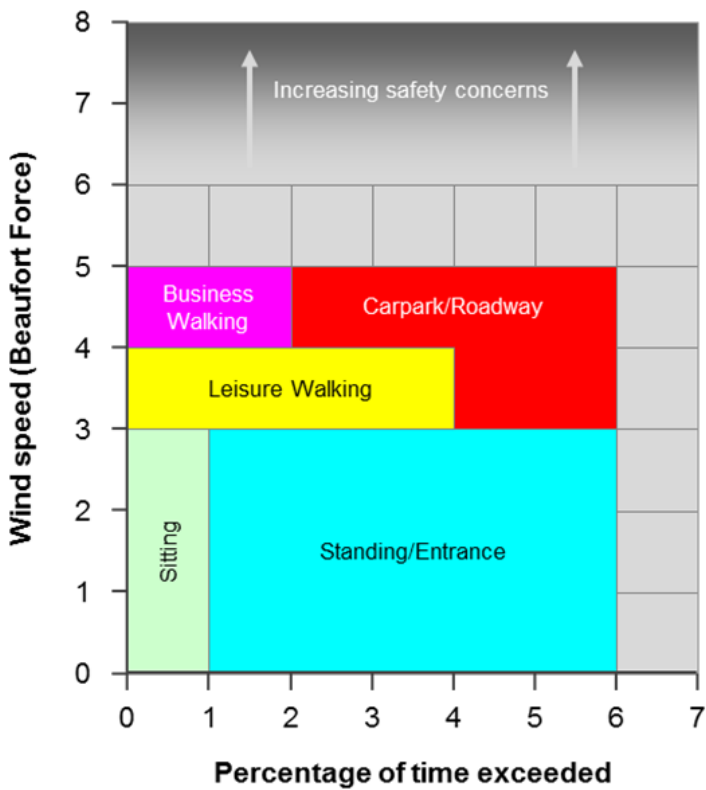


Figure 20:Graphical representation of the Lawson Comfort Criteria

Beaufort Force	Hourly Average Wind Speed (m/s)	Description of Wind	Noticeable Wind Effect
0	< 0.45	Calm	Smoke rises vertically.
1	0.45 – 1.55	Light Air	Direction shown by smoke drift but not by vanes.
2	1.55 – 3.35	Gentle Breeze	Wind felt on face; leaves rustle; wind vane moves.
3	3.35 – 5.60	Light Breeze	Leaves & twigs in motion; wind extends a flag.
4	5.60 – 8.25	Moderate Breeze	Raises dust and loose paper; small branches move.
5	8.25 – 10.95	Fresh Breeze	Small trees, in leaf, sway.
6	10.95 – 14.10	Strong Breeze	Large branches begin to move; telephone wires whistle.
7	14.10 – 17.20	Near Gale	Whole trees in motion.
8	17.20 – 20.80	Gale	Twigs break off; personal progress impeded.
9	20.80 – 24.35	Strong Gale	Slight structural damage; chimney pots removed.
10	24.35 – 28.40	Storm	Trees uprooted; considerable structural damage.
11	28.40 – 32.40	Violent Storm	Damage is widespread; unusual in the U.K.
12	> 32.40	Hurricane	Countryside is devastated; only occurs in tropical countries.

Figure 21:Table 4: Beaufort Land Scale

Appendix D: Reserved Matters Plot B, Illustrative Scheme

An illustrative scheme was tested as part of the Plot B Reserved Matters assessment. This configuration represents a more realistic scenario for the roof terraces, including the beneficial effects of screening and balustrades around the terrace areas. Photographs of the illustrative scheme are shown in Figures 22 to 27 below. The wind microclimate assessment results are shown in Figure 28 for the windiest season and 29 for the summer season. These results demonstrate the potential improvements in wind conditions that could be achieved at the detailed design stage.



Figure 22: Plot B Reserved Matters with Illustrative Scheme, viewed from south

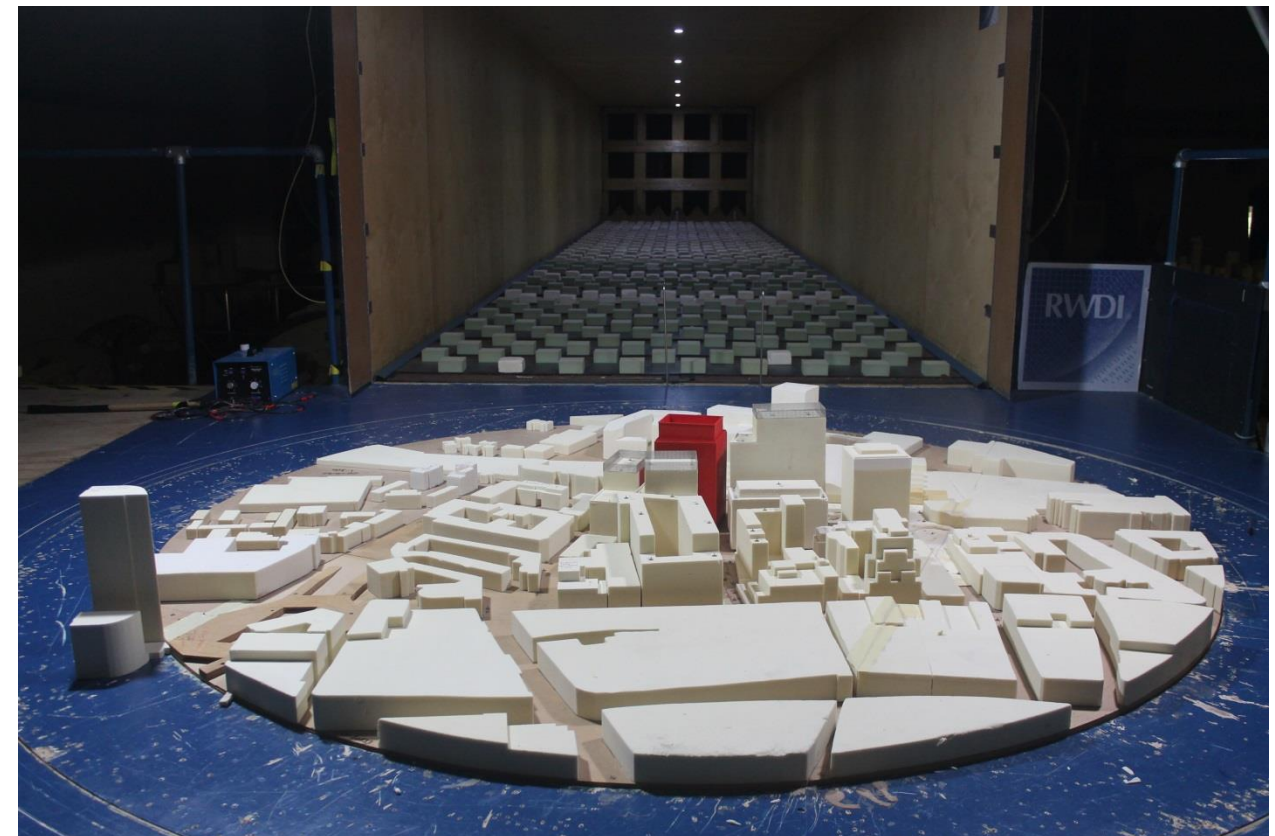


Figure 23: Plot B Reserved Matters with Illustrative Scheme, viewed from south

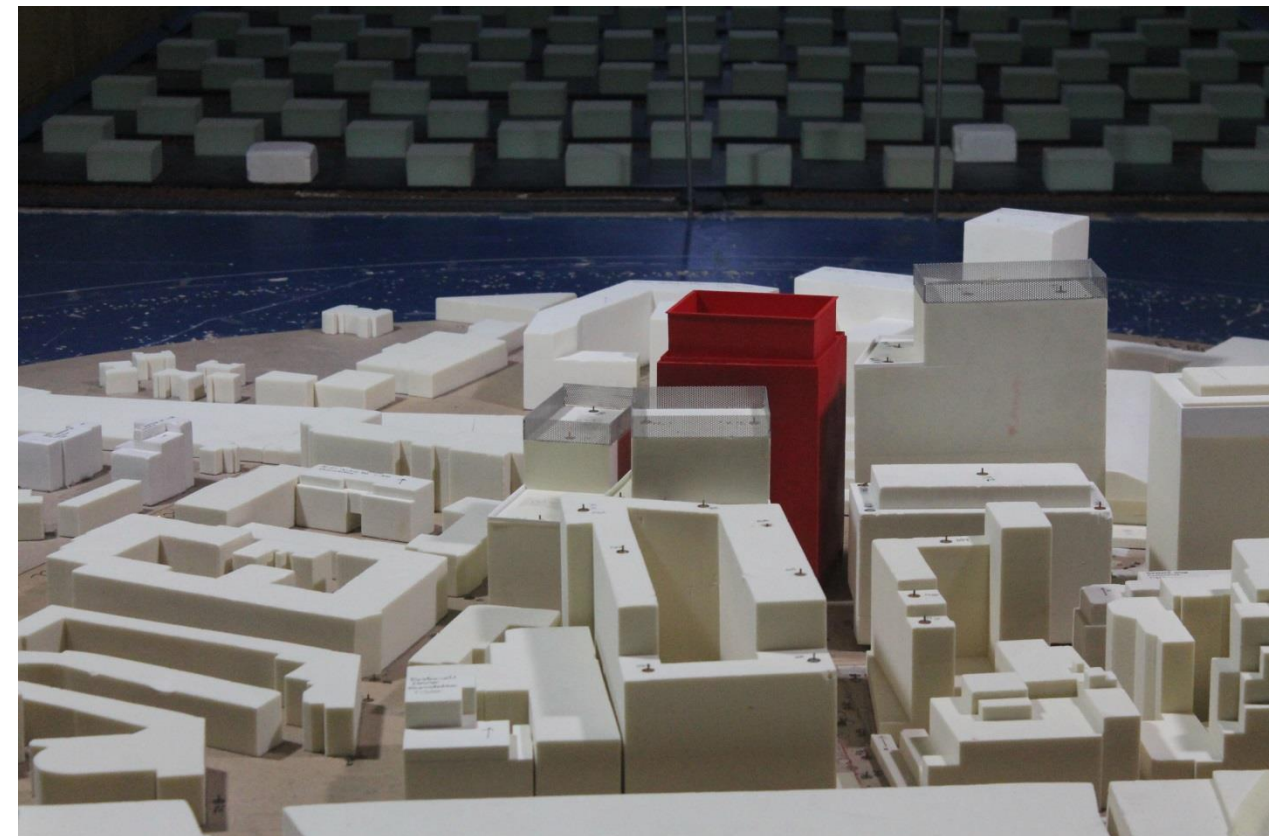


Figure 24: Plot B Reserved Matters with Illustrative Scheme, close-up, viewed from south



Figure 25: Plot B Reserved Matters with Illustrative Scheme, viewed from west

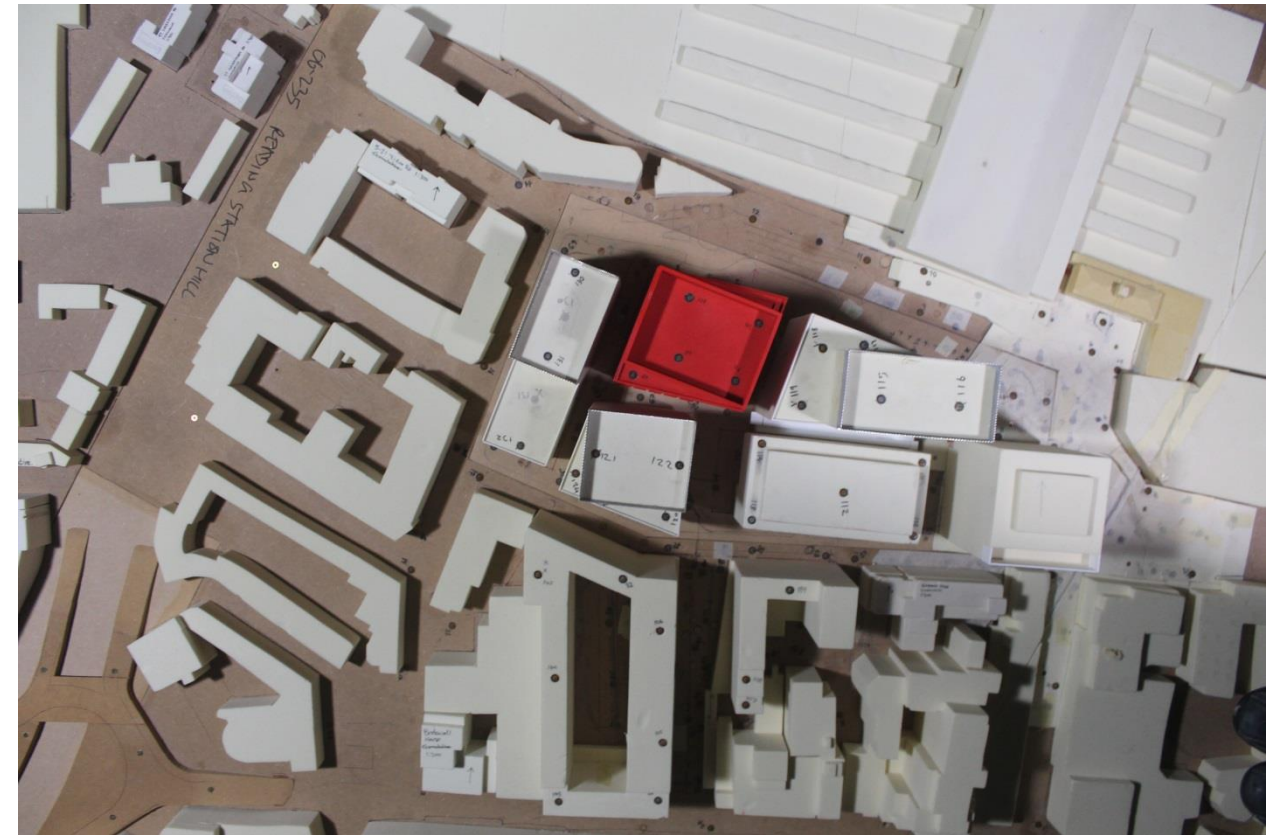


Figure 27: Plot B Reserved Matters with Illustrative Scheme, viewed from above

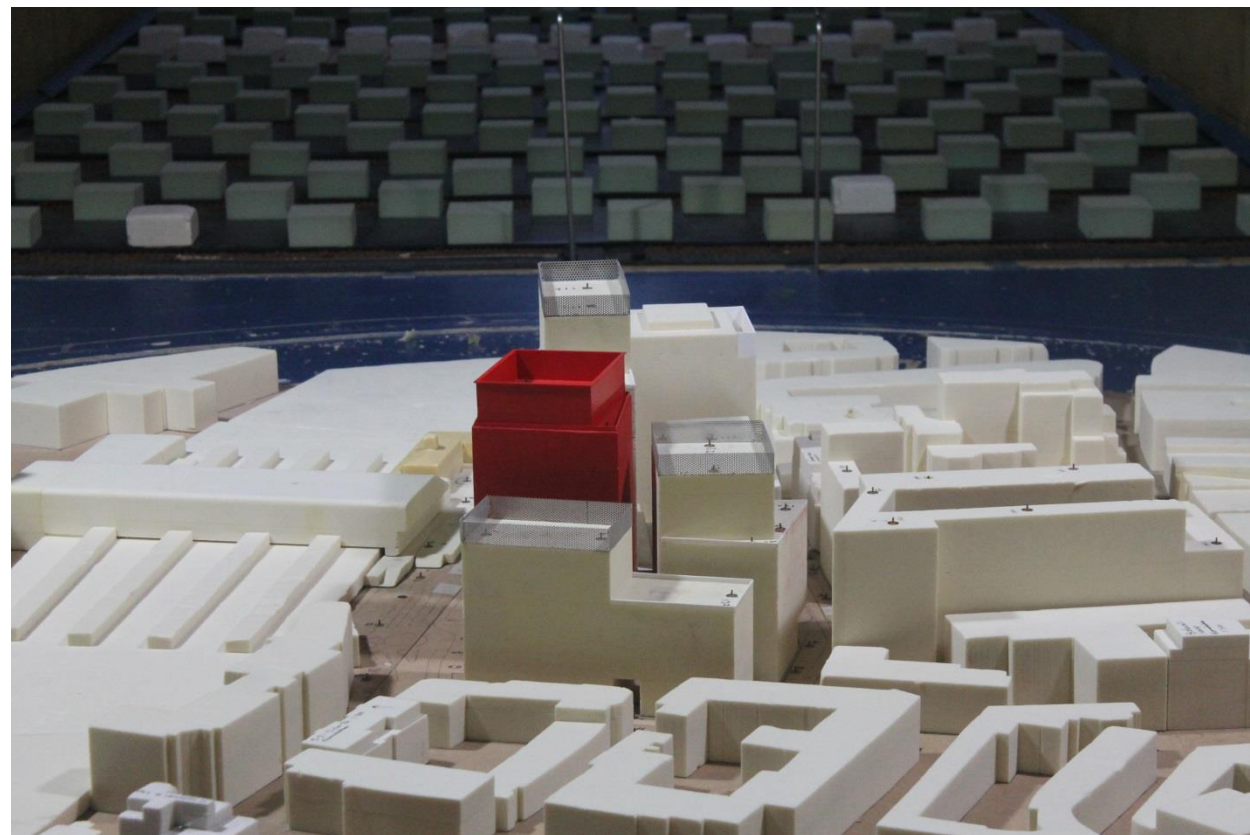


Figure 26: Plot B Reserved Matters with Illustrative Scheme, close-up, viewed from west



LEGEND:

LAWSON COMFORT CRITERIA:	
Sitting	
Standing/Entrance	
Leisure Walking	
Business Walking	
Carpark/Roadway	

SENSOR LOCATION:	
Grade Level	
Podium Level	
Terrace/Balcony Level	

Pedestrian Wind Comfort Conditions - Configuration 4 : Building B in detail with Illustrative Scheme and Cumulative Surrounding Buildings Windiest Season

Station Hill - Reading, United Kingdom

True North



0 20 40m



Drawn by: SM	Figure: 28
Approx. Scale: 1:1000	
Date Revised: Mar. 09, 2015	



Project #1402222



LEGEND:

LAWSON COMFORT CRITERIA:	
Sitting	
Standing/Entrance	
Leisure Walking	
Business Walking	
Carpark/Roadway	

SENSOR LOCATION:	
Grade Level	
Podium Level	
Terrace/Balcony Level	

Pedestrian Wind Comfort Conditions - Configuration 4 : Building B in detail with Illustrative Scheme and Cumulative Surrounding Buildings Summer Season

Station Hill - Reading, United Kingdom

	Drawn by: SM	Figure: 29	
	Approx. Scale: 1:1000		
	Date Revised: Mar. 09, 2015		

Project #1402222

0 20 40m

Appendix 16.1

Principles of Daylight and Sunlight

APPENDIX 16.1

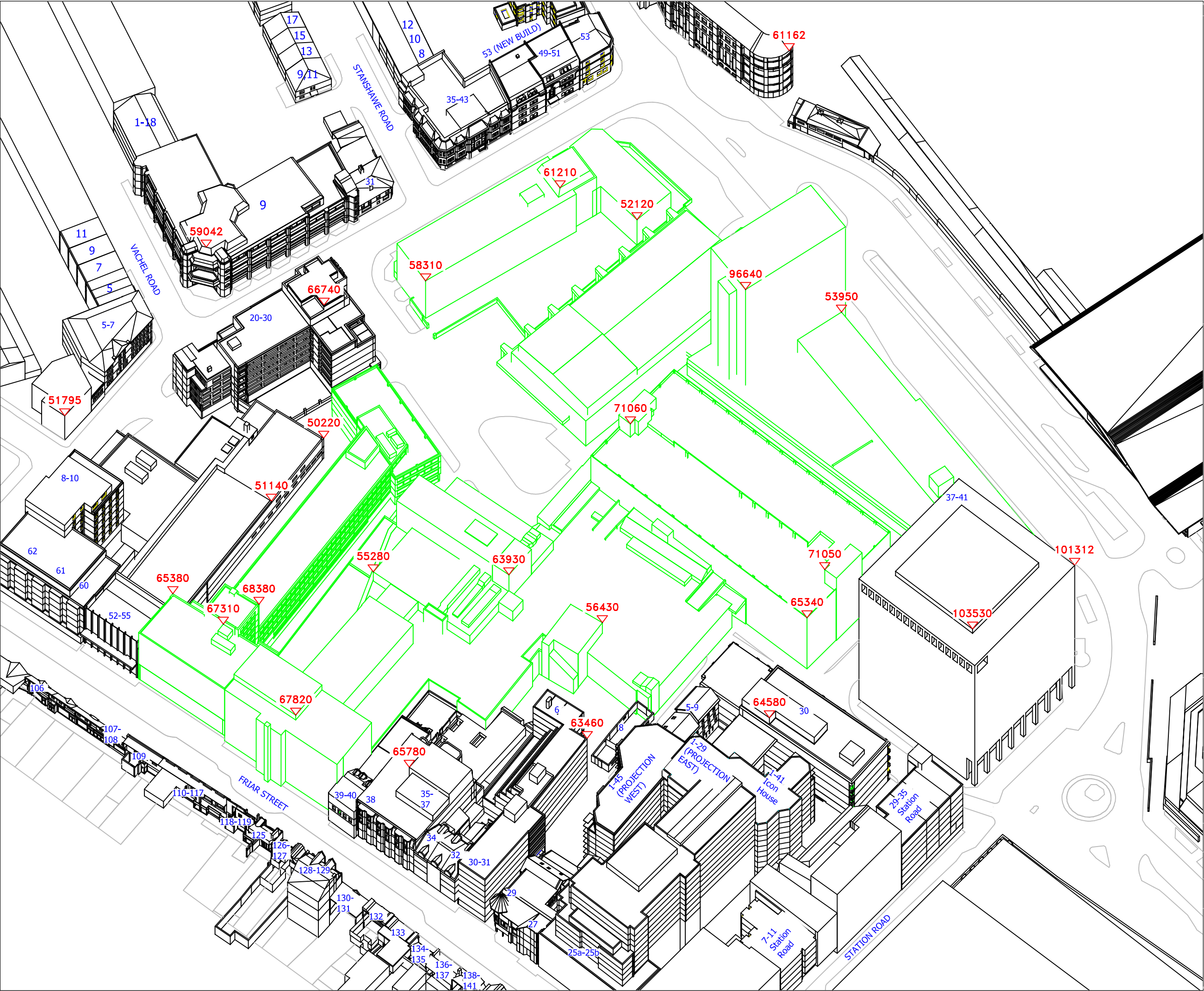
DRAWINGS

FUTURE BASELINE SCENARIO

PROPOSED DEVELOPMENT SCENARIO

CONSENTED SCHEME

CUMULATIVE DEVELOPMENT SCENARIO



Sources of Information

GIA
IR01-5847 Site Survey
IR02-5847 Site Plan
Site Photography
Floor Plans and elevations for some buildings
(..\Floor Plans)

ALLIES & MORRISON ARCHITECTS
IR12-5847-070213
698_max illustrative scheme for GIA
analysis_130207

ALLIES & MORRISON ARCHITECTS
IR31-030315 - Allies&Morrison Illustrative and Max
param massing
698_Plot B_In Context_Illustrative
scheme_150303.dwg

ALLIES & MORRISON ARCHITECTS
IR42-100715-Allies&Morrison - Plot B Max
parameter scheme
698_Maximum parameters_150623.dwg

Notes

N.B. DO NOT SCALE OFF THIS DRAWING
EXISTING BUILDINGS SHOWN IN GREEN

ALL HEIGHTS GIVEN IN mm AOD

Rev	Date	Description	Initials
A		Initial Issue	
B		Buildings added	JSM

Project

STATION HILL
READING

Title

3D VIEW 01
EXISTING BUILDINGS

Scale

NTS@A3

Date

22.07.15

Drawn

JSM

Checked

Drawing No.
5847-519

Rel No.
33

Revision
B



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