Allied London Fire Station Ltd

LONDON ROAD FIRE STATION, MANCHESTER

Waste and Servicing Strategy

VN60607

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PLANS

Dwg VN60607-G100	Site Location (Local Context)
Dwg VN60607-G101	Site Location (Wider Context)
Dwg 240242-PUR-FS-ZZ-DR-A-7001	Floor plans and accommodation schedule
Dwg VN60607-D111C	Highway Layout
Dwg LRFS-PUR-01-00-DR-A-2020	Basement Waste, Access and Servicing Strategy
Dwg LRFS-PUR-01-00-DR-A-2021	Ground Floor Waste, Access and Servicing Strategy
Dwg LRFS-PUR-01-00-DR-A-2022	First Floor Waste, Access and Servicing Strategy
Dwg LRFS-PUR-01-00-DR-A-2023	Second Floor Waste, Access and Servicing Strategy
Dwg LRFS-PUR-01-00-DR-A-2024	Third Floor Waste, Access and Servicing Strategy

APPENDICES

Appendix A	MCC Waste Proforma

1 INTRODUCTION

1.1 Background

1.1.1 This Waste and Servicing Strategy Report has been prepared by Vectos on behalf of Allied London Fire Station Ltd in support of the proposed redevelopment of the London Road Fire Station in Manchester city centre, to provide a mix of uses including a hotel, food and beverage, live/workspace, function/events and leisure space.

1.1.2 The location of the site is shown in **Dwg VN60607-G100**, with **Dwg VN60607-G101** presenting the site at a wider context.

1.1.3 The existing site is a Grade II Listed Building which has been largely unused since 1986, despite various development proposals. Prior to this the site primarily operated as a fire station with additional services also being housed in the building including a police station, an ambulance station, a bank, a gas-meter testing station and a coroner's court.

1.2 Site Location

1.2.1 The site is located to the east of Manchester City Centre, immediately adjacent to Piccadilly Station. The site is bound by Whitworth Street to the north, London Road/Whitworth Street to the east, Fairfield Street to the south and Minshull Street South to the west.

1.2.2 The location of the site is shown in **Figure 1.1** below**.**

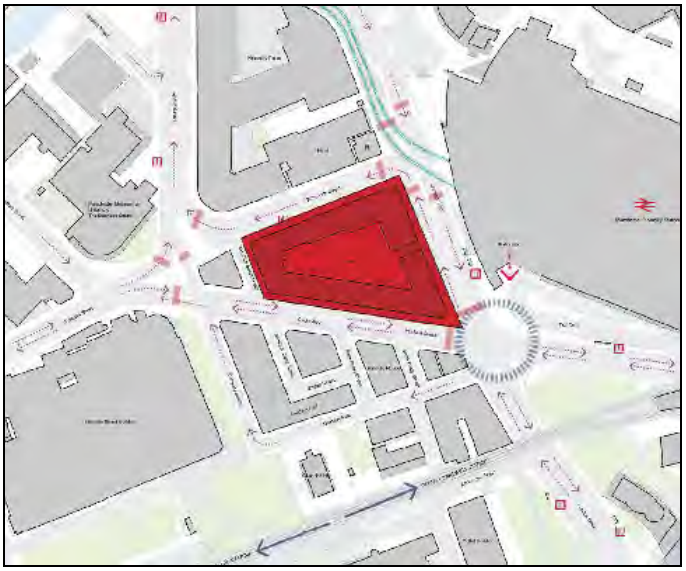


Figure 1.1 - Site Location and Surrounding Transport Infrastructure

1.3 Proposed Development

1.3.1 The development proposals seek to invest in the historic London Road Fire Station building, and in parallel introduce wide ranging new uses and amenities to create an efficient operation for a long-term shared community.

1.3.2 The scheme will be of the highest quality and aims to reinvent the building for future use. The proposed mix of uses for the site are flexible to some degree at this stage, however the area schedule and floor plans are provided in **Dwg 240242-PUR-FS-ZZ-DR-A-7001**, with an extract also provided below.

Basement

Coroner's Court (Sui generis)	178 m²
Hotel (C1)	340 m²
Landlord Areas	157 m²
Screening Room (B1, A3, A4, D2, C1)	265 m²
Unit A (A1, A3, A4)	694 m²
Unit E (A1, A3, A4)	74 m²
Unit F (A1, A3, A4, D2)	141 m²
Grand total: 96	1850 m²

First Floor

Hotel (C1)	461 m²
Landlord Areas	79 m²
Unit D (B1, A3, A4, D2, C1)	185 m²
Workspace (B1)	1353 m²
Workspace (B1, D1)	374 m²
Workspace External (B1)	256 m²
Workspace External (B1, D1)	17 m²
Grand total: 92	2725 m²

Ground Floor

Coroner's Court (Sui generis)	119 m²
Courtyard (A1, A3, A4, D2)	1761 m²
Courtyard External (A1, A3, A4, D2)	0 m²
Hotel (C1)	216 m²
Landlord Areas	107 m²
Unit A (A1, A3, A4)	605 m²
Unit D (B1, A3, A4, D2, C1)	393 m²
Unit E (A1, A3, A4)	168 m²
Unit F (A1, A3, A4, D2)	358 m²
Unit G (A1, A3, A4)	210 m²
Unit H (A1, A3, A4)	71 m²
Grand total: 78	4010 m²

Second Floor

Hotel (C1)	616 m²
Landlord Areas	72 m²
Live & Work (B1, C3)	783 m²
Live & Work External (B1, C3)	107 m²
Unit K (B1, A3, A4)	300 m²
Workspace (B1)	572 m²
Workspace External (B1)	195 m²
Grand total: 98	2645 m²

Third Floor

Hotel (C1)	598 m²
Landlord Areas	127 m²
Live & Work (B1, C3)	827 m²
Live & Work External (B1, C3)	85 m²
Unit L (B1, A3, A4)	149 m²
Workspace (B1)	576 m²
Workspace External (B1)	68 m²
Grand total: 93	2429 m²

1.4 Vehicular Access

1.4.1 With the site having a previous use as a fire station, there are a number of gated vehicular access points around the perimeter of the site. The access on London Road was used as the main vehicular access for the previous use of the site.

1.4.2 Under the proposed development, there will be no vehicular access to the courtyard except for maintenance or emergency vehicles. Waste collections will occur from a loading bay adjacent to the building on Minshull Street South. The location of this loading bay where the servicing and refuse collection would occur is shown in **Dwg VN60607-D111A**.

1.4.3 This report forecasts the number of likely deliveries needed to serve the site and the arrangements for deliveries and sets out the policy context for waste management. It goes on to predict the various waste streams generated by occupiers of the development, the refuse storage provision and sets out the strategy for minimising waste generation and the collection of waste.

1.4.4 The **servicing strategy** sets out the movement of vehicles to and from the buildings and includes:

- Calculation of the number of expected deliveries;
- Service Strategy for goods to be delivered to the occupiers.

1.4.5 The **waste strategy** sets out the means of recycling the material generated and sets out the:

- Estimated waste generation;
- Proposed waste management strategy;
- Proposed waste storage facilities.

2 DELIVERY STRATEGY

2.1 Deliveries

2.1.1 Typical deliveries expected for the various uses of London Road Fire Station are as follows:

- Food;
- Drink, (Bottles & Kegs);
- Catering supplies;
- Sanitation;
- Consumables;
- Post/newspapers;
- Courier deliveries;
- Household items, including occasional furniture items;
- Online food shopping deliveries;
- Deliveries of housekeeping materials, and
- Laundry.

2.2 Delivery Strategy

2.2.1 Large delivery and refuse collections for the occupiers of London Road Fire Station would be made from a loading bay on Minshull Street South. The location of this loading bay and the service access point is shown in **Dwg VN60607-D111A**.

2.2.2 This loading bay is a new facility which requires a change to the parking bays on Minshull Street South and would require new Traffic Orders to be implemented. Given the varied nature of the land uses on site it is proposed that there would be no time restriction on loading although the management of the site would ensure deliveries are timed so as not to disturb residents or hotel guests.

2.2.3 From that location deliveries/bins will be taken into the building at ground floor level. Once within the building, goods will be transported via the use of service corridors and goods lifts allowing access to all land uses on site.

2.2.4 It is also expected that light goods deliveries such as post or courier deliveries could be made from Fairfield Street outside of morning peak traffic periods (weekdays 8am-10am).

2.2.5 Any disturbance from delivery/waste collection activity would be considered through the management strategy. No vehicles are expected to need to reverse so there would be no reversing beeps.

2.3 Delivery Forecasts

2.3.1 To estimate the number of service vehicles accessing London Road Fire Station the TRICS database was interrogated.

2.3.2 By selecting TRICS sites for the mainland uses surveyed after April 2013 it is possible to derive the volume of Light Goods Vehicles and 'Other Goods Vehicles' (OGVs). OGVs include vehicles that are heavier than 3.5 tonnes and include vans that have double wheels on the rear axle.

2.3.3 The characteristics of the different service vehicle types in the TRICS database are described in **Table 2.1** below.

Vehicle Type	Vehicle	Typical Characteristics	Typical Turnaround Time (mins)
Light Goods Vehicle		3.5 Tonne Vehicle Length 4.2m – 6m	5
OGV Medium Goods Vehicle		7.5 -17 Tonne Vehicle Length 8m – 10m	15-20

Table 2.1 Vehicle Categories in TRICS database

2.3.4 The TRICS analysis is presented within the accompanying Transport Statement.

2.3.5 From that information we have summarised the service trip forecasts and these are presented in **Table 2.2** overleaf. However the TRICS data does not account for coordination of deliveries due to the combination of land uses on one site. This coordination would occur naturally as for example the post delivery is made once to the building (Multiple Drops) whereas the TRICS data assumes that this occurs for each land use. Secondly the management on site are able to actively coordinate the delivery and refuse collections. For example they would specify one refuse collection company to collect the waste and also coordinate the food and beverage deliveries for the various outlets on site. From a study of deliveries along Regent Road, London, the potential for multiple drops and coordination of deliveries can result in a one third reduction in vehicle activity.

2.3.6 This adjustment has been calculated and presented in Table 2.2 and this shows that we expect 9 deliveries by larger OGV vehicles and 36 deliveries by vans. Most deliveries take less than 5 minutes. Larger vehicles tend to take longer at around 20 minutes. Occasionally there may be some vehicles that take longer than 20 minutes depending on the nature of the service activity.

2.3.7 As part of the Service Strategy it is proposed to schedule regular deliveries so that they do not occur at the same time. It is expected that the larger deliveries such as refuse collections and drinks deliveries would be timed to occur early in the morning. This will help manage the level of activity at the Minshull Street loading bay.

2.3.8 Drivers delivering goods to London Road Fire Station would take them into the building at ground floor level. There are service corridors linking to all of the land uses within the building and goods will also be taken from floor to floor via service lifts. Drivers would be expected to have their own handling equipment. Some delivery drivers making light deliveries may look to drop off goods through front entrances. This can occur on part of the Fairfield Street frontage outside of the morning peak period 08:00-10:00.

Residential Service Trips

Apartment Sites in TRICS

TRICS 7.3.2
Trip Rate Parameter: Number of dwellings

Key Selection Parameters

Date Range: 01/01/13 to 16/11/15
Selected survey days:
Monday 2 days
Tuesday 3 days
Wednesday 4 days
Thursday 5 days
Friday 2 days

Selected Locations:
Town Centre 3
Edge of Town Centre 13
Suburban Area 0
Edge of Town 0
Neighbourhood Centre 0
Free Standing 0
Not Known 0

LIST OF SITES relevant to selection parameters

1 CB-03-C-01 BLOCK OF FLATS
KING STREET
CARLISLE
2 EX-03-C-01 FLATS
WESTCLIFF
SOUTHEND-ON-SEA
3 EX-03-C-02 BLOCK OF FLATS
WESTCLIFF
SOUTHEND-ON-SEA
4 HM-03-C-01 BLOCK OF FLATS
VANSTON PLACE
FULHAM
5 HO-03-C-02 BLOCK OF FLATS
HIGH STREET
BRENTFORD
6 LU-03-C-01 BLOCKS OF FLATS
DONORE ROAD
DROGHEDA
7 LU-03-C-02 BLOCK OF FLATS
NICHOLAS STREET
DUNDALK
8 LU-03-C-03 BLOCK OF FLATS
NICHOLAS STREET
DUNDALK
9 MG-03-C-01 BLOCK OF FLATS
MALL ROAD
MONAGHAN
10 NF-03-C-01 BLOCKS OF FLATS
PAGE STAIR LANE
KING'S LYNN
11 SA-03-C-01 BLOCK OF FLATS
RACECOURSE ROAD
AYR
12 SF-03-C-01 BLOCKS OF FLATS
STATION HILL
BURY ST EDMUNDS
13 SK-03-C-01 BLOCK OF FLATS
PARK STREET
SOUTHWARK
14 SK-03-C-02 BLOCK OF FLATS
LAMB WALK
BERMONDSEY
15 SR-03-C-01 FLATS
FORTHSIDE WAY
STIRLING
16 SR-03-C-02 FLATS
ROSEBERRY TERRACE
STIRLING

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
Calculation Factor: 1 DWELLS
Count Type: OGVs

Time Range	ARRIVALS No. Days	Ave. DWELLS	Trip Rate	DEPARTURES No. Days	Ave. DWELLS	Trip Rate	TOTALS No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	20	56	0.001	20	56	0.004	20	56	0.005
08:00-09:00	20	56	0.001	20	56	0.001	20	56	0.002
09:00-10:00	20	56	0.003	20	56	0.003	20	56	0.006
10:00-11:00	20	56	0.002	20	56	0.003	20	56	0.005
11:00-12:00	20	56	0	20	56	0	20	56	0
12:00-13:00	20	56	0.003	20	56	0.002	20	56	0.005
13:00-14:00	20	56	0.001	20	56	0.002	20	56	0.003
14:00-15:00	20	56	0.002	20	56	0.001	20	56	0.003
15:00-16:00	20	56	0.001	20	56	0.001	20	56	0.002
16:00-17:00	20	56	0	20	56	0.001	20	56	0.001
17:00-18:00	20	56	0.001	20	56	0.001	20	56	0.002
18:00-19:00	20	56	0	20	56	0	20	56	0
19:00-20:00	2	93	0	2	93	0	2	93	0
20:00-21:00	2	93	0	2	93	0	2	93	0
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.019			0.019			0.038

OGVs
Apartments
LRFS Apts
15

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.1
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	0.0	0.0
11:00-12:00	0.0	0.0
12:00-13:00	0.0	0.0
13:00-14:00	0.0	0.0
14:00-15:00	0.0	0.0
15:00-16:00	0.0	0.0
16:00-17:00	0.0	0.0
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	0.2	0.3

Count Type: LGVs

Time Range	ARRIVALS No. Days	Ave. DWELLS	Trip Rate	DEPARTURES No. Days	Ave. DWELLS	Trip Rate	TOTALS No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	20	56	0.002	20	56	0.009	20	56	0.011
08:00-09:00	20	56	0.004	20	56	0.003	20	56	0.007
09:00-10:00	20	56	0.004	20	56	0.005	20	56	0.009
10:00-11:00	20	56	0.008	20	56	0.009	20	56	0.017
11:00-12:00	20	56	0.008	20	56	0.009	20	56	0.017
12:00-13:00	20	56	0.013	20	56	0.008	20	56	0.021
13:00-14:00	20	56	0.012	20	56	0.012	20	56	0.024
14:00-15:00	20	56	0.006	20	56	0.008	20	56	0.014
15:00-16:00	20	56	0.004	20	56	0.004	20	56	0.008
16:00-17:00	20	56	0.01	20	56	0.012	20	56	0.022
17:00-18:00	20	56	0.002	20	56	0.001	20	56	0.003
18:00-19:00	20	56	0.002	20	56	0.002	20	56	0.004
19:00-20:00	2	93	0	2	93	0	2	93	0
20:00-21:00	2	93	0	2	93	0	2	93	0
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.089			0.088			0.177

LGVs
Apartments
LRFS Apts
15

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.1
08:00-09:00	0.1	0.0
09:00-10:00	0.1	0.1
10:00-11:00	0.1	0.1
11:00-12:00	0.1	0.1
12:00-13:00	0.2	0.1
13:00-14:00	0.2	0.2
14:00-15:00	0.1	0.1
15:00-16:00	0.1	0.1
16:00-17:00	0.2	0.2
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	1.1	1.2

Service Vehicles
Apartments
LRFS Apts
15

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.2
08:00-09:00	0.1	0.1
09:00-10:00	0.1	0.1
10:00-11:00	0.2	0.2
11:00-12:00	0.1	0.1
12:00-13:00	0.2	0.2
13:00-14:00	0.2	0.2
14:00-15:00	0.1	0.1
15:00-16:00	0.1	0.1
16:00-17:00	0.2	0.2
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	1.4	1.5

Commercial Service Trips

Restaurant Sites in TRICS

LIST OF SITES relevant to selection parameters

1 AN-06-B-02 FRANKIE & ANTRIM
HILLSBOROUGH ROAD
LISBURN
2 AN-06-B-03 MODERN CANTRIM
LISBURN ROAD
BELFAST
3 CH-06-B-01 BBQ RESTACHESHIRE
SOUTERS LANE
CHESTER
4 EN-06-B-01 ITALIAN RE ENFIELD
CHASE SIDE
ENFIELD
5 LU-06-B-01 RESTAURALOUTH
CARLINGFORD ROAD R173
NEAR DUNDALK
6 LU-06-B-02 RESTAURALOUTH
DONORE ROAD
LAGAVOOREN
DROGHEDA
7 RF-06-B-01 INDIAN RES RENFREWSHIRE
LINWOOD ROAD
PHOENIX LEISURE PARK
PAISLEY
8 ST-06-B-01 RESTAURALSTAFFORDSHIRE
STONE ROAD
TRENTHAM
STOKE-ON-TRENT
9 WY-06-B-0 CHINESE RI WEST YORKSHIRE
BINGLEY STREET
LEEDS

TRIP RATE for FOOD & DRINK/B - RESTAURANTS
Calculation Factor: 100 sqm
Count Type: OGVs

Time Range	ARRIVALS No. Days	Ave. GFA	Trip Rate	DEPARTURES No. Days	Ave. GFA	Trip Rate	TOTALS No. Days	Ave. GFA	Trip Rate
00:00-01:00	2	660	0	2	660	0	2	660	0
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00									
10:00-11:00	3	333	0.1	3	333	0.1	3	333	0.2
11:00-12:00	6	440	0	6	440	0	6	440	0
12:00-13:00	6	440	0	6	440	0	6	440	0
13:00-14:00	6	440	0	6	440	0	6	440	0
14:00-15:00	6	440	0	6	440	0	6	440	0
15:00-16:00	6	440	0	6	440	0	6	440	0
16:00-17:00	6	440	0.076	6	440	0.076	6	440	0.152
17:00-18:00	6	440	0	6	440	0	6	440	0
18:00-19:00	6	440	0	6	440	0	6	440	0
19:00-20:00	6	440	0	6	440	0	6	440	0
20:00-21:00	6	440	0	6	440	0	6	440	0
21:00-22:00	6	440	0	6	440	0	6	440	0
22:00-23:00	6	440	0	6	440	0	6	440	0
23:00-24:00	6	440	0	6	440	0	6	440	0
Daily Trip Rates:			0.176			0.176			0.352

OGVs
Restaurants sqm
LRFS Sq.m
1287

Time Range	ARR	DEP
00:00-01:00	0.0	0.0
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.0
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	1.3	1.3
11:00-12:00	0.0	0.0
12:00-13:00	0.0	0.0
13:00-14:00	0.0	0.0
14:00-15:00	0.0	0.0
15:00-16:00	0.0	0.0
16:00-17:00	1.0	1.0
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00	0.0	0.0
Daily Trip Rates:	2.3	2.3

Count Type: LGVs

Time Range	ARRIVALS No. Days	Ave. GFA	Trip Rate	DEPARTURES No. Days	Ave. GFA	Trip Rate	TOTALS No. Days	Ave. GFA	Trip Rate
00:00-01:00	2	660	0	2	660	0	2	660	0
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00									
08:00-09:00									
09:00-10:00									
10:00-11:00	3	333	0.4	3	333	0.4	3	333	0.8
11:00-12:00	6	440	0.189	6	440	0.227	6	440	0.416
12:00-13:00	6	440	0.076	6	440	0.114	6	440	0.19
13:00-14:00	6	440	0.114	6	440	0.152	6	440	0.266
14:00-15:00	6	440	0.076	6	440	0.076	6	440	0.152
15:00-16:00	6	440	0.076	6	440	0.076	6	440	0.152
16:00-17:00	6	440	0.114	6	440	0.038	6	440	0.152
17:00-18:00	6	440	0.114	6	440	0.038	6	440	0.152
18:00-19:00	6	440	0.038	6	440	0.114	6	440	0.152
19:00-20:00	6	440	0	6	440	0.038	6	440	0.038
20:00-21:00	6	440	0	6	440	0.038	6	440	0.038
21:00-22:00	6	440	0	6	440	0	6	440	0
22:00-23:00	6	440	0	6	440	0	6	440	0
23:00-24:00	6	440	0	6	440	0	6	440	0
Daily Trip Rates:			1.197			1.311			2.508

LGVs
Restaurants sqm
LRFS Sq.m
1287

Time Range	ARR	DEP
00:00-01:00	0.0	0.0
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.0
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	5.1	5.1
11:00-12:00	2.4	2.9
12:00-13:00	1.0	1.5
13:00-14:00	1.5	2.0
14:00-15:00	1.0	1.0
15:00-16:00	1.0	1.0
16:00-17:00	1.5	0.5
17:00-18:00	1.5	0.5
18:00-19:00	0.5	1.5
19:00-20:00	0.0	0.5
20:00-21:00	0.0	0.5
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00	0.0	0.0
Daily Trip Rates:	15.4	16.9

Service Vehicles
Restaurants sqm
LRFS Sq.m
1287

Time Range	ARR	DEP
00:00-01:00	0.0	0.0
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.0	0.0
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	6.4	6.4
11:00-12:00	2.4	2.9
12:00-13:00	1.0	1.5
13:00-14:00	1.5	2.0
14:00-15:00	1.0	1.0
15:00-16:00	1.0	1.0
16:00-17:00	2.4	1.5
17:00-18:00	1.5	0.5
18:00-19:00	0.5	1.5
19:00-20:00	0.0	0.5
20:00-21:00	0.0	0.5
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00	0.0	0.0
Daily Trip Rates:	17.7	19.1

Office Service Trips

TRICS 7.3.2
Trip Rate Parameter: Gross floor area

Key Selection Parameters

Date Range: 01/01/13 to 26/11/15
Selected survey days:
Monday 1 days
Tuesday 4 days
Wednesday 2 days
Thursday 7 days
Friday 6 days

Selected Locations:
Town Centre 9
Edge of Town Centre 11
Suburban Area 0
Edge of Town 0
Neighbourhood Centre 0
Free Standing 0
Not Known 0

LIST OF SITES relevant to selection parameters

1 BD-02-A-03 OFFICES
BROMHAM ROAD
BEDFORD
2 BR-02-A-02 PLANNING & ENG
ST THOMAS STREET
BRISTOL
3 CA-02-A-05 OFFICES
NEW ROAD
PETERBOROUGH
4 CI-02-A-02 OFFICES
GRACECHURCH STREET
MONUMENT
CITY OF LONDON
5 CI-02-A-03 OFFICES
MONUMENT STREET
MONUMENT
CITY OF LONDON
6 ES-02-A-12 COUNCIL OFFICES
VICARAGE LANE
HAILSHAM
7 EX-02-A-03 HMRC
VICTORIA AVENUE
SOUTHEND-ON-SEA
8 HD-02-A-07 DATA CENTRE
MILLINGTON ROAD
HYDE PARK
HAYES
9 HF-02-A-03 OFFICE
60 VICTORIA STREET
ST ALBANS
10 HF-02-A-04 OFFICES
STATION WAY
ST ALBANS
11 MT-02-A-02 COUNCIL OFFICES
CASTLE STREET
MERTHYR TYDFIL
12 PS-02-A-01 COUNCIL OFFICES
SEVERN ROAD
WELSHPOOL
13 SF-02-A-02 OFFICES
BATH STREET
IPSWICH
14 SO-02-A-01 COUNCIL OFFICES
HIGH STREET
SLOUGH
15 SO-02-A-02
BATH ROAD
SLOUGH
16 SW-02-A-01
LANGDON ROAD
SWANSEA
17 SW-02-A-02
KINGS ROAD
SWANSEA
18 TV-02-A-04
CORPORATION ROAD
MIDDLESBROUGH
19 WK-02-A-01
WARWICK ROAD
COVENTRY
20 WO-02-A-01
ST MARY'S STREET
WORCESTER

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: OGVS

3158.6

Time Range	ARRIVALS No. Days	Ave. GFA	Trip Rate	DEPARTURES No. Days	Ave. GFA	Trip Rate	TOTALS No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	25	7173	0.002	25	7173	0.001	25	7173	0.003
08:00-09:00	25	7173	0.003	25	7173	0.003	25	7173	0.006
09:00-10:00	25	7173	0.001	25	7173	0.002	25	7173	0.003
10:00-11:00	25	7173	0.001	25	7173	0.001	25	7173	0.002
11:00-12:00	25	7173	0.001	25	7173	0.001	25	7173	0.002
12:00-13:00	25	7173	0.001	25	7173	0.001	25	7173	0.002
13:00-14:00	25	7173	0	25	7173	0	25	7173	0
14:00-15:00	25	7173	0.002	25	7173	0.001	25	7173	0.003
15:00-16:00	25	7173	0.003	25	7173	0.002	25	7173	0.005
16:00-17:00	25	7173	0.001	25	7173	0.001	25	7173	0.002
17:00-18:00	25	7173	0.001	25	7173	0.001	25	7173	0.002
18:00-19:00	25	7173	0	25	7173	0	25	7173	0
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.016			0.018			0.034

OGVs
Offices square metres
LRFS Offices
3411

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.1	0.0
08:00-09:00	0.1	0.1
09:00-10:00	0.0	0.1
10:00-11:00	0.0	0.0
11:00-12:00	0.0	0.0
12:00-13:00	0.0	0.0
13:00-14:00	0.0	0.0
14:00-15:00	0.1	0.0
15:00-16:00	0.1	0.1
16:00-17:00	0.0	0.0
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	0.5	0.5

Count Type: LGVS

Time Range	ARRIVALS No. Days	Ave. GFA	Trip Rate	DEPARTURES No. Days	Ave. GFA	Trip Rate	TOTALS No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	25	7173	0.012	25	7173	0.009	25	7173	0.021
08:00-09:00	25	7173	0.023	25	7173	0.023	25	7173	0.046
09:00-10:00	25	7173	0.015	25	7173	0.017	25	7173	0.032
10:00-11:00	25	7173	0.011	25	7173	0.012	25	7173	0.023
11:00-12:00	25	7173	0.016	25	7173	0.017	25	7173	0.033
12:00-13:00	25	7173	0.016	25	7173	0.014	25	7173	0.03
13:00-14:00	25	7173	0.009	25	7173	0.006	25	7173	0.015
14:00-15:00	25	7173	0.013	25	7173	0.011	25	7173	0.024
15:00-16:00	25	7173	0.013	25	7173	0.013	25	7173	0.026
16:00-17:00	25	7173	0.016	25	7173	0.018	25	7173	0.034
17:00-18:00	25	7173	0.013	25	7173	0.011	25	7173	0.024
18:00-19:00	24	7455	0.003	24	7455	0.005	24	7455	0.008
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.171			0.166			0.337

LGVs
Offices square metres
LRFS Offices
3411

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.4	0.3
08:00-09:00	0.8	0.8
09:00-10:00	0.5	0.6
10:00-11:00	0.4	0.4
11:00-12:00	0.5	0.6
12:00-13:00	0.5	0.5
13:00-14:00	0.3	0.2
14:00-15:00	0.4	0.4
15:00-16:00	0.4	0.4
16:00-17:00	0.5	0.6
17:00-18:00	0.4	0.4
18:00-19:00	0.1	0.2
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	5.5	5.3

Service Vehicles
Offices square metres
LRFS Offices
3411

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.5	0.3
08:00-09:00	0.9	0.9
09:00-10:00	0.5	0.6
10:00-11:00	0.4	0.4
11:00-12:00	0.6	0.6
12:00-13:00	0.6	0.5
13:00-14:00	0.3	0.2
14:00-15:00	0.5	0.4
15:00-16:00	0.5	0.5
16:00-17:00	0.6	0.6
17:00-18:00	0.5	0.4
18:00-19:00	0.1	0.2
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00		
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	6.0	5.8

Hotel Service Trips

Hotel Beds 123

TRICS 7.3.2
Calculation Factor: 1 BEDRMS

Key Selection Parameters

Date Range: 01/01/13 to 27/09/15
Selected survey days:
Monday 1 days
Tuesday 1 days
Wednesday 2 days
Thursday 2 days
Friday 1 days

Selected Locations:
Town Centre 4
Edge of Town Centre 3
Suburban Area 0
Edge of Town 0
Neighbourhood Centre 0
Free Standing 0

1 CS-06-A-03 HOTEL
STRANDHILL ROAD
SLIGO
2 EX-06-A-01 TRAVELODGE
CHICHESTER ROAD
SOUTHEND-ON-SEA
3 GR-06-A-03 NOVOTEL
GREENWICH HIGH ROAD
GREENWICH
4 NT-06-A-02 PREMIER INN
LONDON ROAD
NOTTINGHAM
5 TV-06-A-04 THISTLE
FRY STREET
MIDDLESBROUGH
6 WA-06-A-01 HOTEL
CANADA STREET
WATERFORD
7 WL-06-A-02 HOLIDAY INN EXPRESS
BRIDGE STREET
SWINDON

TRIP RATE for Land Use 0I FOOD & DRINK/A - HOTELS
Calculation Factor: 1 BEDRMS
Count Type: OGVS

Time Range	ARRIVALS No. Days	Ave. BEDRMS	Trip Rate	DEPARTURES No. Days	Ave. BEDRMS	Trip Rate	TOTALS No. Days	Ave. BEDRMS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00	1	24	0	1	24	0	1	24	0
06:00-07:00	1	24	0.042	1	24	0.042	1	24	0.084
07:00-08:00	6	104	0.003	6	104	0.003	6	104	0.006
08:00-09:00	6	104	0.005	6	104	0.005	6	104	0.01
09:00-10:00	6	104	0.005	6	104	0.005	6	104	0.01
10:00-11:00	6	104	0.003	6	104	0.002	6	104	0.005
11:00-12:00	6	104	0	6	104	0.002	6	104	0.002
12:00-13:00	6	104	0.005	6	104	0.005	6	104	0.01
13:00-14:00	6	104	0.002	6	104	0.002	6	104	0.004
14:00-15:00	6	104	0.005	6	104	0.003	6	104	0.008
15:00-16:00	6	104	0.003	6	104	0.002	6	104	0.005
16:00-17:00	6	104	0	6	104	0	6	104	0
17:00-18:00	6	104	0	6	104	0.002	6	104	0.002
18:00-19:00	6	104	0	6	104	0	6	104	0
19:00-20:00	5	120	0	5	120	0	5	120	0
20:00-21:00	5	120	0	5	120	0	5	120	0
21:00-22:00	5	120	0	5	120	0	5	120	0
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.035			0.035			0.07

OGVs
Hotel
LRFS Hotel
42

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.0	0.0
06:00-07:00	1.8	1.8
07:00-08:00	0.1	0.1
08:00-09:00	0.2	0.2
09:00-10:00	0.2	0.2
10:00-11:00	0.1	0.1
11:00-12:00	0.0	0.1
12:00-13:00	0.0	0.2
13:00-14:00	0.1	0.1
14:00-15:00	0.2	0.1
15:00-16:00	0.1	0.1
16:00-17:00	0.0	0.0
17:00-18:00	0.0	0.1
18:00-19:00	0.0	0.0
19:00-20:00	0.0	0.0
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00		
23:00-24:00		
Daily Trip Rates:	3.1	3.1

TRIP RATE for Land Use 0I FOOD & DRINK/A - HOTELS

Count Type: LGVS

Time Range	ARRIVALS No. Days	Ave. BEDRMS	Trip Rate	DEPARTURES No. Days	Ave. BEDRMS	Trip Rate	TOTALS No. Days	Ave. BEDRMS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00	1	24	0	1	24	0	1	24	0
06:00-07:00	1	24	0	1	24	0	1	24	0
07:00-08:00	6	104	0.005	6	104	0.005	6	104	0.01
08:00-09:00	6	104	0.003	6	104	0.008	6	104	0.011
09:00-10:00	6	104	0.005	6	104	0	6	104	0.005
10:00-11:00	6	104	0.01	6	104	0.006	6	104	0.016
11:00-12:00	6	104	0.008	6	104	0.01	6	104	0.018
12:00-13:00	6	104	0.005	6	104	0.006	6	104	0.011
13:00-14:00	6	104	0.005	6	104	0.005	6	104	0.01
14:00-15:00	6	104	0.008	6	104	0.003	6	104	0.011
15:00-16:00	6	104	0.008	6	104	0.01	6	104	0.018
16:00-17:00	6	104	0.005	6	104	0.006	6	104	0.011
17:00-18:00	6	104	0.002	6	104	0.003	6	104	0.005
18:00-19:00	6	104	0.005	6	104	0.002	6	104	0.007
19:00-20:00	5	120	0	5	120	0.002	5	120	0.002
20:00-21:00	5	120	0	5	120	0	5	120	0
21:00-22:00	5	120	0	5	120	0	5	120	0
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			0.093			0.095			0.188

LGVs
Hotel
LRFS Hotel
42

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00	0.0	0.0
06:00-07:00	0.0	0.0
07:00-08:00	0.2	0.2
08:00-09:00	0.1	0.3
09:00-10:00	0.2	0.0
10:00-11:00	0.4	0.3
11:00-12:00	0.3	0.4
12:00-13:00	0.2	0.3
13:00-14:00	0.2	0.2
14:00-15:00	0.3	0.1
15:00-16:00	0.3	0.4
16:00-17:00	0.2	0.3
17:00-18:00	0.1	0.1
18:00-19:00	0.2	0.1
19:00-20:00	0.2	0.1
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00		
Daily Trip Rates:	2.9	2.8

Service Vehicles
Hotel
LRFS Hotel
42

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00	0.0	0.0
05:00-06:00	0.0	0.0
06:00-07:00	1.8	1.8
07:00-08:00	0.3	0.3
08:00-09:00	0.3	0.5
09:00-10:00	0.4	0.2
10:00-11:00	0.5	0.3
11:00-12:00	0.3	0.5
12:00-13:00	0.4	0.5
13:00-14:00	0.3	0.3
14:00-15:00	0.5	0.3
15:00-16:00	0.5	0.5
16:00-17:00	0.2	0.3
17:00-18:00	0.1	0.2
18:00-19:00	0.2	0.1
19:00-20:00	0.0	0.1
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00		
Daily Trip Rates:	6.0	5.8

Cinema

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS
Calculation Factor: 1 SEATS
Count Type: OGVS

Time Range	No. Days	ARRIVALS Estimated Trip Rate	DEPARTURES Estimated Trip Rate
00:00-01:00	2	0	0
01:00-02:00	2	0	0
02:00-03:00			
03:00-04:00			
04:00-05:00			
05:00-06:00			
06:00-07:00			
07:00-08:00			
08:00-09:00			
09:00-10:00			
10:00-11:00	4	0	0.007
11:00-12:00	5	0.02	0.02
12:00-13:00	6	0.009	0.009
13:00-14:00	6	0.013	0.013
14:00-15:00	6	0.009	0.009
15:00-16:00	6	0.004	0
16:00-17:00	6	0.009	0.013
17:00-18:00	6	0.004	0.004
18:00-19:00	6	0	0
19:00-20:00	6	0	0
20:00-21:00	6	0	0
21:00-22:00	6	0	0
22:00-23:00	6	0	0
23:00-24:00	5	0	0
Daily Trip Rates:		0.068	0

OGVs
LRFS Cinema
54 Seats

Time Range	ARR	DEP
00:00-01:00	0.0	0.0
01:00-02:00	0.0	0.0
02:00-03:00	0.0	0.0
03:00-04:00	0.0	0.0
04:00-05:00	0.0	0.0
05:00-06:00	0.0	0.0
06:00-07:00	0.0	0.0
07:00-08:00	0.0	0.0
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	0.1	0.1
11:00-12:00	0.0	0.0
12:00-13:00	0.1	0.1
13:00-14:00	0.1	0.1
14:00-15:00	0.1	0.0
15:00-16:00	0.0	0.0
16:00-17:00	0.0	0.0
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.1	0.0
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00	0.0	0.0
Daily Trip Rates:	0.1	0.1

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS
Count Type: OGVS

Time Range	No. Days	ARRIVALS Estimated Trip Rate	DEPARTURES Estimated Trip Rate
00:00-01:00	2	0	0
01:00-02:00	2	0.018	0.018
02:00-03:00			
03:00-04:00			
04:00-05:00			
05:00-06:00			
06:00-07:00			
07:00-08:00			
08:00-09:00			
09:00-10:00			
10:00-11:00	4	0.06	0.053
11:00-12:00	5	0.039	0.044
12:00-13:00	6	0.067	0.04
13:00-14:00	6	0.076	0.081
14:00-15:00	6	0.054	0.049
15:00-16:00	6	0.049	0.049
16:00-17:00	6	0.036	0.049
17:00-18:00	6	0.036	0.04
18:00-19:00	6	0.031	0.027
19:00-20:00	6	0.067	0.031
20:00-21:00	6	0.031	0.031
21:00-22:00	6	0.031	0.031
22:00-23:00	6	0.004	0.045
23:00-24:00	5	0.005	0.035
Daily Trip Rates:		0.604	0.623

LGVs
LRFS Cinema
54 Seats

Time Range	ARR	DEP
00:00-01:00	0.0	0.0
01:00-02:00	0.0	0.0
02:00-03:00	0.0	0.0
03:00-04:00	0.0	0.0
04:00-05:00	0.0	0.0
05:00-06:00	0.0	0.0
06:00-07:00	0.0	0.0
07:00-08:00	0.0	0.0
08:00-09:00	0.0	0.0
09:00-10:00	0.0	0.0
10:00-11:00	0.1	0.1
11:00-12:00	0.0	0.0
12:00-13:00	0.1	0.1
13:00-14:00	0.1	0.0
14:00-15:00	0.1	0.0
15:00-16:00	0.0	0.0
16:00-17:00	0.0	0.0
17:00-18:00	0.0	0.0
18:00-19:00	0.0	0.0
19:00-20:00	0.1	0.0
20:00-21:00	0.0	0.0
21:00-22:00	0.0	0.0
22:00-23:00	0.0	0.0
23:00-24:00	0.0	0.0
Daily Trip Rates:	0.6	0.6

Retail

TRIP RATE for Land Use 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS
Calculation Factor: 100 sq m GFA
Count Type: OGVS

Time Range	No. Days	ARRIVALS Estimated Trip Rate	DEPARTURES Estimated Trip Rate
00:00-01:00			
01:00-02:00			
02:00-03:00			
03:00-04:00			
04:00-05:00			
05:00-06:00			
06:00-07:00			
07:00-08:00	6	0.047	0.041
08:00-09:00	6	0.024	0.018
09:00-10:00	6	0.077	0.089
10:00-11:00	6	0.035	0.03
11:00-12:00	6	0.047	0.047
12:00-13:00	6	0.059	0.083
13:00-14:00	6	0.041	0.047
14:00-15:00	6	0.041	0.03
15:00-16:00	6	0.024	0.018
16:00-17:00	6	0.024	0.018
17:00-18:00	6	0.012	0.006
18:00-19:00	6	0	0.012
19:00-20:00	5	0	0
20:00-21:00	5	0	0
21:00-22:00	5	0	0
22:00-23:00			
23:00-24:00			
Daily Trip Rates:		0.431	0

OGVs
Retail
1054

Time Range	ARR	DEP
00:00-01:00		
01:00-02:00		
02:00-03:00		
03:00-04:00		
04:00-05:00		
05:00-06:00		
06:00-07:00		
07:00-08:00	0.05	0.04
08:00-09:00	0.02	0.02
09:00-10:00	0.08	0.09
10:00-11:00	0.04	0.03
11:00-12:00	0.05	0.05
12:00-13:00	0.06	0.08
13:00-14:00	0.04	0.05
14:00-15:00	0.04	0.03
15:00-16:00	0.02	0.02
16:00-17:00	0.02	0.02
17:00-18:00	0.01	0.01
18:00-19:00	0.00	0.01
19:00-20:00	0.00	0.00
20:00-21:00	0.00	0.00
21:00-22:00	0.00	0.00
22:00-23:00	0.00	0.00
23:00-24:00	0.00	0.00
Daily Trip Rates:	0.43	0.44

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS
Count Type: OGVS

Time Range	No. Days	ARRIVALS Estimated Trip Rate	DEPARTURES Estimated Trip Rate
00:00-01:00			
01:00-02:00			
02:00-03:00			
03:00-04:00			
04:00-05:00			
05:00-06:00			
06:00-07:00			
07:00-08:00		0.201	0.201
08:00-09:00		0.224	0.218
09:00-10:00		0.195	0.171
10:00-11:00		0.254	0.248
11:00-12:00		0.224	0.248
12:00-13:00		0.26	0.242
13:00-14:00		0.207	0.159
14:00-15:00		0.159	0.207
15:00-16:00		0.195	0.177
16:00-17:00		0.165	0.212
17:00-18:00		0.124	0.106
18:00-19:00		0.159	0.165
19:00-20:00		0.2	0.21
20:00-21:00		0.14	0.16
21:00-22:00		0.06	0.08
22:00-23:00			
23:00-24:00			
Daily Trip Rates:	0	2.767	2.804

LGVs
Retail
1054

Time Range	ARR	DEP
00:00-01:00	0	0
01:00-02:00	0	0
02:00-03:00	0	0
03:00-04:00	0	0
04:00-05:00	0	0
05:00-06:00	0	0
06:00-07:00	0	0
07:00-08:00	0.201	0.201
08:00-09:00	0.224	0.218
09:00-10:00	0.195	0.171
10:00-11:00	0.254	0.248
11:00-12:00	0.224	0.248
12:00-13:00	0.26	0.242
13:00-14:00	0.207	0.159
14:00-15:00	0.159	0.207
15:00-16:00	0.195	0.177
16:00-17:00	0.165	0.212
17:00-18:00	0.124	0.106
18:00-19:00	0.159	0.165
19:00-20:00	0.2	0.21
20:00-21:00	0.14	0.16
21:00-22:00	0.06	0.08
22:00-23:00	0	0
23:00-24:00	0	0
Daily Trip Rates:	2.8	2.8

2.3.8 Drivers delivering goods to London Road Fire Station would take them into the building at ground floor level. There are service corridors linking to all of the land uses within the building and goods will also be taken from floor to floor via service lifts. Drivers would be expected to have their own handling equipment. Some delivery drivers making light deliveries may look to drop off goods through front entrances. This can occur on part of the Fairfield Street frontage outside of the morning peak period 08:00-10:00.

3 WASTE MANAGEMENT STRATEGY

3.1 Introduction

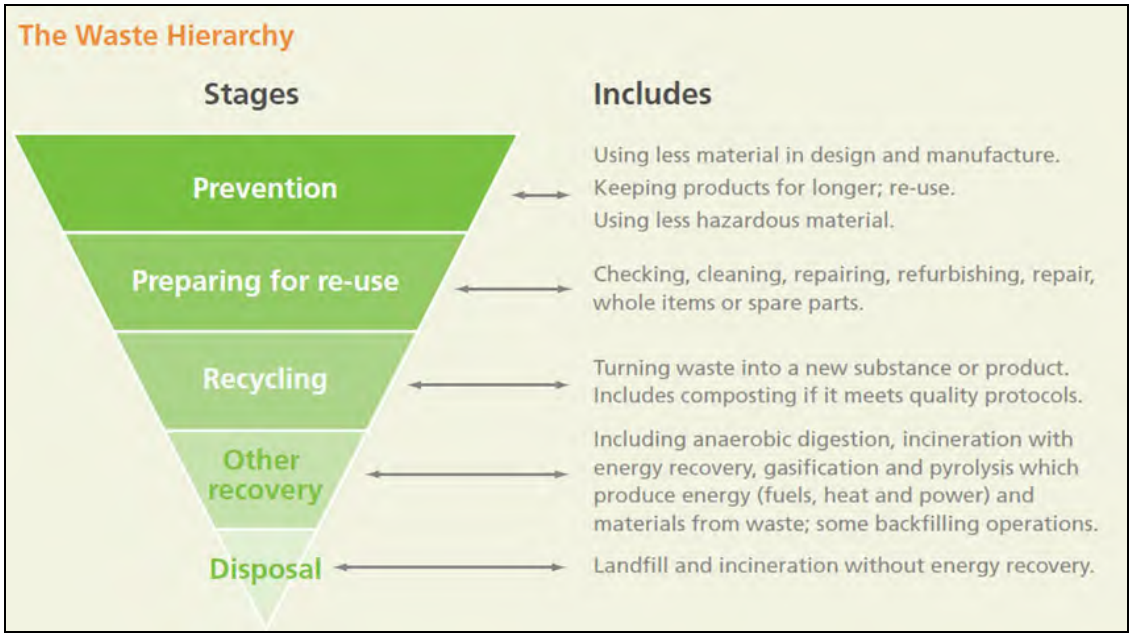
3.1.1 The development falls within the City of Manchester and MCC have published guidance on the design and management of buildings to produce waste management strategies that maximise the amount of waste that is recycled.

3.1.2 To achieve high recycling rates, it states that all refuse should be separated at source and stored off the highway in purpose-built refuse stores minimising the distance to collection thus reducing the opportunity for spillage.

3.1.3 In accordance with Section 34 of the Environmental Protection Act 1990, the managers of the development has a legal 'Duty of Care' to ensure that waste is securely stored and disposed of legally. The most convenient way to achieve this is by using a registered waste carrier.

3.1.4 The Waste (England and Wales) (amendment) Regulations 2012 has introduced changes and updates that affect both waste producers and waste management companies alike. These include the need to separate waste paper, metal, plastic and glass in different waste streams.

3.1.5 Another change will be the obligatory use of SIC codes in all documentation relating to waste management services and a compulsory commitment from waste producers to adhere to the waste hierarchy as described overleaf.



3.1.6 To demonstrate compliance with regulations, a Waste Transfer Note is required when that waste is collected by the waste carrier. This may be provided electronically. Many carriers are also able to provide environmental reports to inform on the waste management performance.

3.1.7 There will be food waste generated by the kitchens and restaurants which needs to be covered by the Animal By-Products (Enforcement) (England) Regulations 2011. The volumes of waste will be greater than 20kg and therefore need to be stored in a labelled container and collected by a licensed carrier and records kept.

3.1.8 Interventions are needed in all stages of the process to minimise waste going to landfill. The minimisation of waste and recycling interventions by occupiers and the management company can help meet the city councils and government's aspirations.

3.1.9 All new developments must meet the requirements of Part H6 of the Building Regulations 2000 (solid waste storage) which states:

- Adequate means of storing solid waste shall be provided;
- Adequate means of access should be provided for people in the building to the place of storage, and, from the place of storage to a collection point agreed by the waste collection authority.

3.2 Waste Streams

3.2.1 Within each land use or unit within the building there will be four separate bins for recycling as described below.

- Pulpable recycling

(Paper/Cardboard/Tetrapak etc)



- Mixed Recyclables

(Glass, Metal, Plastic)



- Food & Compostable Items



- General Refuse (All Waste not identified above)

3.2.2 It will be the responsibility of the occupier to take waste from their respective property to the ground floor refuse store via use of the service corridors/lifts. The bins in the refuse store will also be labelled/colour coded to identify the different waste streams.

3.2.3 The buildings management will monitor the use of the refuse stores and will ensure compliance with the recycling principles, particularly as any contamination has a financial penalty. The management will also monitor how full the refuse containers are and will call the refuse collection company as required.

3.2.4 The forecast of waste generated by development is described in Section 4 next.

4 WASTE FORECASTS

4.1 Introduction

4.1.1 The report now provides waste assumptions and forecasts the expected weekly waste generation for each land use within the development. It is also noted that at the end of this section a daily waste generation figure is provided.

4.1.2 The main generators of waste at the development will be the live/work space, hotel, function space and retail use. The volume of waste expected to be generated by these uses is discussed below.

4.2 Live/Work Space Waste Forecasts

4.2.1 As the development proposes live/work space, this has been assessed as a flexible space and as such waste calculations have been made as follows:

- One third apartments generating waste at a rate of 110 litres per apartment per week; and
- Two thirds workspace generating waste at a rate of B1 office space of 1 person per 10m² and 50 litres of waste per week per person, based on guidance contained within BS 5906:2005.

4.2.2 Given that the nature of this space is flexible and that the workspace is not expected to be generating waste at a rate as intensive as standard B1 office space, the above assumptions and following calculations are considered robust.

4.2.3 The weekly residential waste calculation is therefore 15 x 110 litres of waste, equating to **1,650** litres of waste per week for apartment use.

4.2.4 The waste generated by the workspace is (3,475m² / 10) x 50 = **17,375 litres** of waste per week.

4.3 Hotel Waste Forecasts

4.3.1 The assumed generation of waste for hotel use is based on British Standard Guidance forecasts BS 5906:2005 for a 4/5 star hotel. This forecasts 350 litres of waste per bedroom. This figure is assumed to include some restaurant uses as part of the hotel's overall operation. The calculation is 42 x 350 = **14,700** litres of waste per week.

4.3.2 It is also expected that the gymnasium and an element of bar use will be ancillary in nature to the hotel and as such the total waste generated by this use.

4.4 Flexible Food and Beverage Waste Forecasts

4.4.1 Under BS 5906:2005 the generation of waste for restaurants is 75 litres per cover per week. It is assumed that collectively the development will accommodate 350 food-led covers and as such will generate **26,250 litres** of waste per week. There are three main bar areas within the development and these have been assumed as non-ancillary, with additional bar generating 3,660 litres per bar per week. This equates to **10,980 litres** per week.

4.5 Function Space Waste Forecasts

4.5.1 The function space within the development will be used for a variety of events, such as a members lounge, meeting space and screening room. As such, a collective assumption of 10 litres per m² has been applied, equating to a weekly waste generation of **14,110 litres**.

4.6 Retail Waste Forecasts

4.6.1 The retail offer (A1) is expected to generate waste at the rate of a typical A1 store. Using BS 5906:2005 the generation of waste is 10 litres per week per m². This equates to **1,054 litres** of waste per week.

4.7 Total Weekly Waste Forecast

4.7.1 When all the above weekly waste forecasts for each land use are compiled, the total weekly waste forecast is **86,144 litres**. A summary of waste generation for the scheme is provided in **Table 4.1**.

4.8 Recycling Streams

4.8.1 To allocate the waste volumes into the various recycling streams a number of different data sources were used including WRAP studies, case studies, and Manchester's Guidance for residential waste GD04. The recycling proportions for the various waste streams are shown in **Table 4.2 to Table 4.7**.

Job Number: VN60607 **Table 4.1**
Date: 05/12/2019
London Road Fire Station - Waste Calculations

Calculations based on Purcell Dwg 240242-PUR-FS-ZZ-DR-A-7001

Land Use		Floor Area	Waste Assumptions	Waste (Litres per week)	General Refuse	Paper/Card	Co-Mingled		Organic
							Plastic/Metal	Glass	
Live/Work	*Live*	-	*1/3 Live - assessed as apartments using MCC's GD04 (110 litres per apartment & each apartment 80m ² - 15 apartments)*	**1650**	49%	24%	24%		3%
					809	396	396		50
	Work		*2/3 Work - assessed as office using BS 5906:2005 (1 employee per 10m ² & 50 litres per employee)*	**17375**	30%	50%	13%	2%	5%
					5213	8688	2259	348	869
Hotel		1773m²	*Calculated using BS 5906:2005 (42 rooms & 350 litres per room)*	**14700**	71%	8%	4%	15%	2%
					10437	1176	588	2205	294
Restaurant/Bar	*Food-led Covers*	1287m²	*Assumed 350 food-led covers to remain consistent with previous W&S Report (70 litres per cover per week)*	**26,250**	10%	22%	7%	21%	40%
					2625	5775	1838	5513	10500
	Bar-led Covers		*Assumed the same waste generation for the three bars to remain consistent with the previous W&S Report (3660 litres per bar per week)*	**10980**	17%	25%	25%	33%	0%
					1867	2745	2745	3623	0
Cinema		128m² (approx.)	*Calculated as a leisure facility (100 litres per m ²)*	**12800**	71%	8%	4%	15%	2%
					9088	1024	512	1920	256
Other Function Space (inc. cinema)		1782m²	*Collective assumption of 10 litres per m ²*	**14110**	71%	8%	4%	15%	2%
					10018	1129	564	2117	282
Retail		70m² (approx.)	*Calculated using BS 5906:2005 (10 litres per m ²)*	**1054**	50%	25%	25%		0%
					527	264	264		0
				86,119					

Total Waste Forecast	General Refuse	Paper/Card	Co-Mingled	Glass	Organic	Total	
Total Waste (before dewatering)	31495	20172	8653	13805	11994	**86119**	**Litres of waste per week**
Total Waste (after dewatering)	31495	20172	8653	13805	8756	**82881**	**Litres of waste per week**
Number of bin lifts per week	41	26	11	18	11	**108**	**Bin Lifts**
Bin Storage for weekly collection	41	26	11	18	11	**108**	**770 Litre Eurobins**
Bin Storage for x5 collection per week	8	5	2	4	2	**22**	**770 Litre Eurobins**
Bin Storage for x7 collection per week	6	4	2	3	2	**15**	**770 Litre Eurobins**

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
49%	24%	24%		3%
809	396	396		50

Table 4.1: Apartment Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
30%	50%	13%	2%	5%
5213	8688	2259	348	869

Table 4.2: Workspace Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
71%	8%	4%	15%	2%
10437	1176	588	2205	294

Table 4.3: Hotel Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
10%	22%	7%	21%	40%
2625	5775	1838	5513	10500

Table 4.4: Restaurant Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
17%	25%	25%	33%	0%
1867	2745	2745	3623	0

Table 4.5: Bar Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
71%	8%	4%	15%	2%
10018	1129	564	2117	282

Table 4.6: Function Space Recycling Proportions

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
50%	25%	25%		0%
527	264	264		0

Table 4.7: Retail Recycling Proportions

4.9 Waste Processing

4.9.1 Given the nature of the scheme, it has been assumed that the foodwaste from the hotel and restaurant kitchens will be de-watered which will reduce the volume by around 80%. This is conducted using a centrifuge and converts it to a compostable like material. An example of such a unit is given in **Figure 4.1** below although other types are available.



Figure 4.1 Food Waste Station

4.9.2 The volume of waste generated will also justify the use of a small Eurobin compactor to reduce the bin storage requirements. There are different types including wall mounted manually operated lever compactors. The hydraulic compactor as shown in **Figure 4.2** can reduce the volume of waste by a rate of 3:1.



Figure 4.2 - PEL Eurobin Compactor

4.9.3 For robustness this dewatering and compaction has been applied to only some of the waste streams with conservative assumptions applied for robustness and these are also described in **Table 4.1**. From these calculations we can then derive a forecast of the number of 770 litre Eurobins that would be needed.

4.9.4 The final consideration is the number of collections that would be made per week. As outlined earlier within this section, the a daily collection rate of x5 per week is now applied to the weekly waste forecasts.

4.9.5 However, for bar/restaurant use, the frequency of collections may be at a higher rate towards x7 per week. Again, to provide a robust assessment we have assumed that there would be 5 collections per week.

4.9.6 With that assumption it is forecast that there will be a total requirement of 22x 770ltr Eurobins, as shown in the aforementioned **Table 4.1**.

4.10 Bin Stores & Refuse Collection Route

4.10.1 Each occupier of the development will initially store waste within their own demise. Given the position of a proportion of the occupiers of London Road Fire Station, the overall waste strategy will comprise refuse containers being brought out onto street directly from various units.

4.10.2 As shown in **Dwg LRFS-PUR-01-B1-DR-A-2020**, hotel waste stored within refuse containers in the basement level refuse store and will be wheeled to the service lift. Waste will then be transferred to the ground floor refuse store via the service lift as shown in the plan and transferred through the courtyard, before collection takes place from Minshull Street. These refuse stores are both located adjacent to Minshull Street and provide a sufficient space for the storage of the required 770ltr Eurobins.

4.10.3 Also shown on this plan is the waste collection point from Minshull Street. Waste will be wheeled in refuse containers to and from these refuse stores via the doorway shown on the plan.

4.10.4 As shown in **Dwg LRFS-PUR-01-00-DR-A-2021**, there are two refuse stores located at ground floor level. These will primarily be used to store live/work waste and waste from any ancillary uses. Also shown on this plan are the routes that waste will be wheeled to this refuse store. The plan also shows waste being transferred to Fairfield Street from the south-eastern corner of the building prior to collection which can be done outside of peak traffic hours, as per existing traffic regulation orders.

4.10.5 The route that waste will be transferred from the first level of the development is shown in **Dwg LRFS-PUR-01-01-DR-A-2022**. The plan shows the route that waste will take form the various units situated on first floor level to the service lift where waste will then be taken to the ground floor bins store, or basement level bins store if deemed appropriate. This is also the case for the second and third floor waste transfer routes to the north of and south of the building via utilisation of the service lifts, as shown in **Dwg LRFS-PUR-01-02-DR-A-2023** and **Dwg LRFS-PUR-01-03-DR-A-2024**.

4.10.6 Waste generated by the Engine Room will be stored within this use's own demise and taken directly out onto Fairfield St for collection daily. It will be the responsibility of the occupier to take the waste to the bin store should this be part of their overall waste transfer strategy.

4.10.7 As outlined, any waste generated at basement level will be brought up to ground floor prior to collection via the good lift. This is expected to be glass waste generated by the bar and will be taken out to Minshull Street or Fairfield Street daily. As shown in Table 4.1, a total that 22x 770 ltr Eurobins can be stored within site's refuse stores and within the demise of the Engine Room's own demise.

4.10.8 Bins will be designated according to the individual waste streams and the occupiers will be instructed to deposit their rubbish in the appropriate bin. The on-site management will have responsibility for keeping the refuse stores clean. They will also have responsibility for ordering waste collections and they or the waste collection operatives to will take the bins from the basement up to Fairfield Street/Minshull Street.

4.11 Waste Pro-Forma

4.11.1 MCC require that a Waste Pro-Forma be prepared to support the planning application. Using the information presented in this chapter, this has been completed and is presented in **Appendix A**.

5 SUMMARY & CONCLUSIONS

5.1 Summary

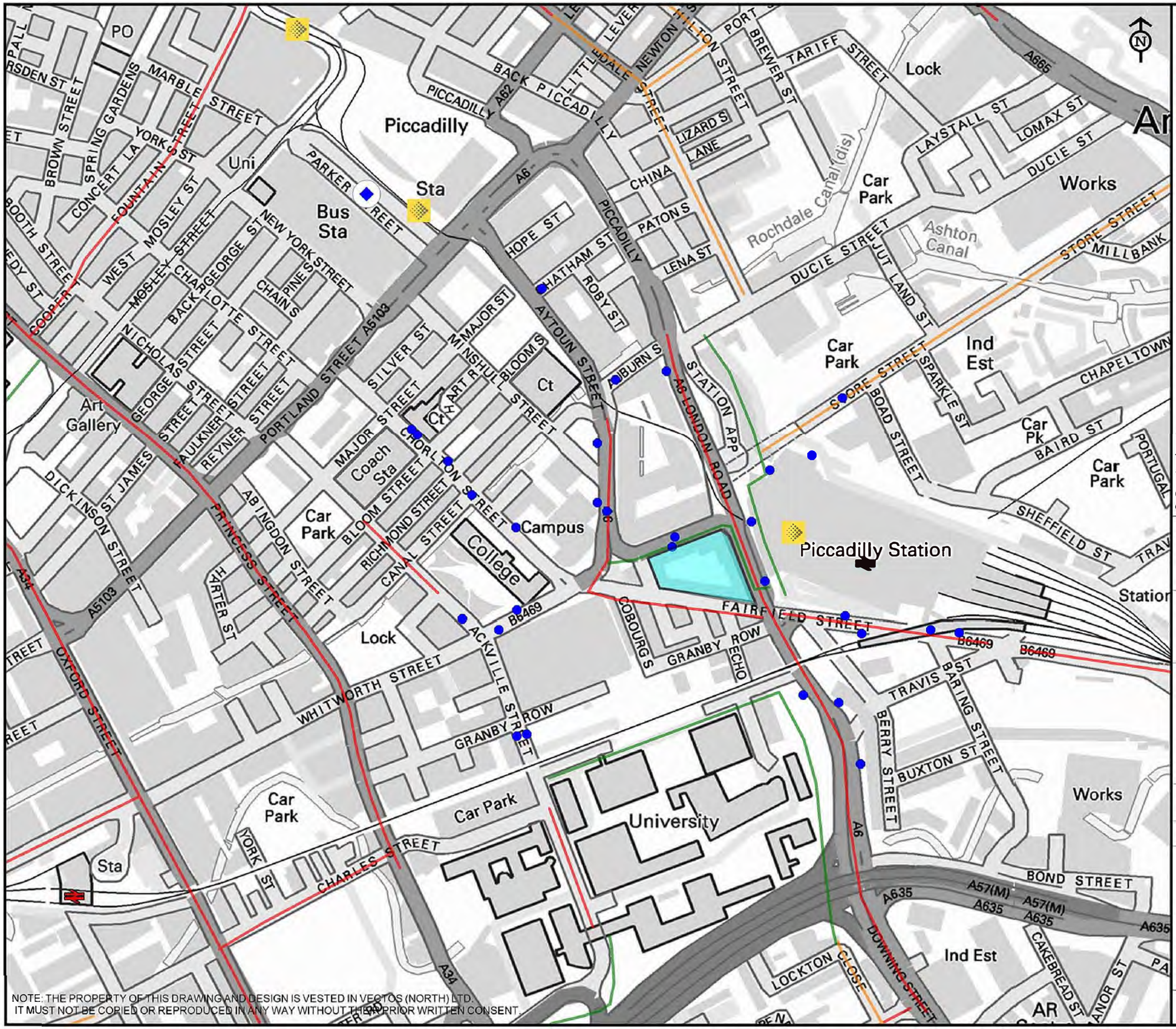
5.1.1 This document sets out the Waste Management and Servicing Strategy for the London Road Fire Station Development. It has calculated the service vehicle generation for the various uses for the building over the course of the day.

5.1.2 The document also calculates the likely waste generation for each of the buildings, the recycling strategy and the storage requirements for bins. It describes how these will be collected and the frequency over the course of a week and also provides a calculation based on a frequency of x5 per week. As outlined, this is considered robust in regard to refuse container provision as it is likely waste will be collected at a rate nearer to x7 per week.

5.2 Conclusion

5.2.1 It is concluded that the forecast deliveries, waste management and refuse collection proposed is appropriate for this scale of development and that servicing and waste collection can be undertaken in an efficient manner.

PLANS



Legend

- Site Location

Cycle Routes

- Signed Routes
- On Road with Cycle Lanes
- Off Road
- Canal Tow Path

Public Transport

- Metrolink
- National Rail
- Piccadilly Gardens Bus Terminus
- Bus Stops

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CLIENT:

Allied London Fire Station Ltd

PROJECT TITLE:

London Road Firestation

DRAWING TITLE:

Site Location (Local Context) with Local Infarstructure

SCALE:

1:5,000 at A3

DRAWN:	CHECKED:	DATE:
PJ	ER	25.10.16

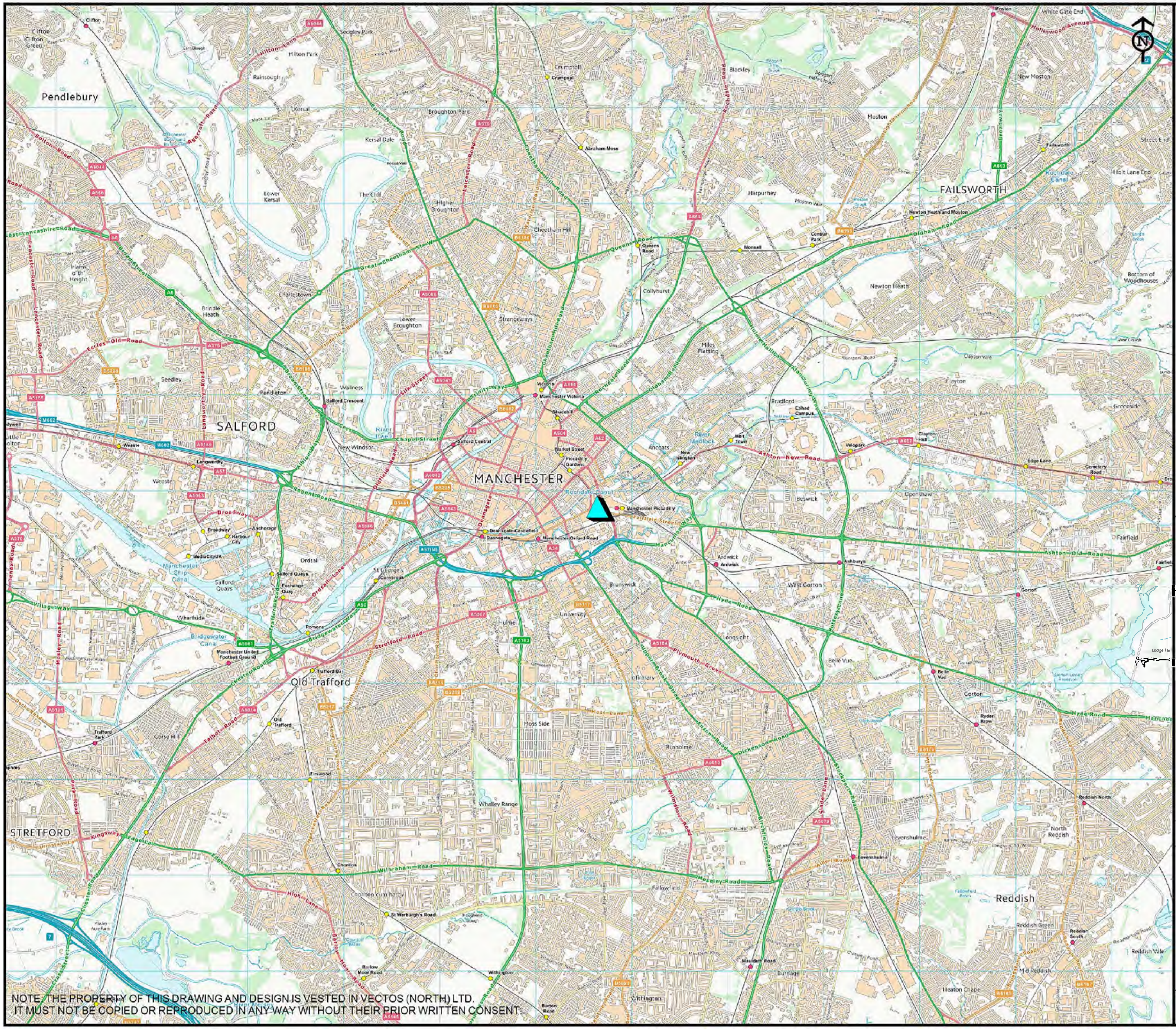
vectos
transport planning specialists

Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

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Legend

Site Location

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PROJECT TITLE:

London Road Firestation

DRAWING TITLE:

Site Location (Wider Context)

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1:50,000 at A3

DRAWN:	CHECKED:	DATE:
PJ	ER	25.10.16

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DRAWING NO:	REVISION:
VN60607-G101	





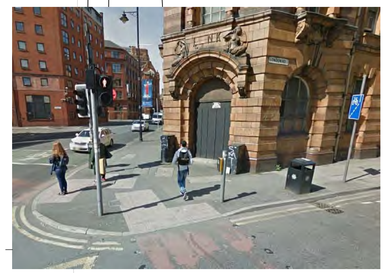














Standard notes

1. Do not scale this drawing.
2. All dimensions must be checked on site and any discrepancies verified with the architect.
3. Unless shown otherwise, all dimensions are to structural surfaces.

This is not a construction drawing, it is unsuitable for the purpose of construction and must on no account be used as such.

Drawing notes

1. A
2. B
3. C
4. D

KEY

- Lamp Post
- Crossing Signal
- Crossing Control
- Road Sign
- Bus Stop
- Post
- Various

Revisions

REV	DATE	DESCRIPTION	INITIALS

London Road Fire Station

Preliminary

Date
07/22/16

Client
Allied London

Project address
London Road,
Manchester

Scale
1 : 250

Drawing
Public Realm Plan - Existing

Drawing number
3336 - 003

Author
BW

Checked
GH

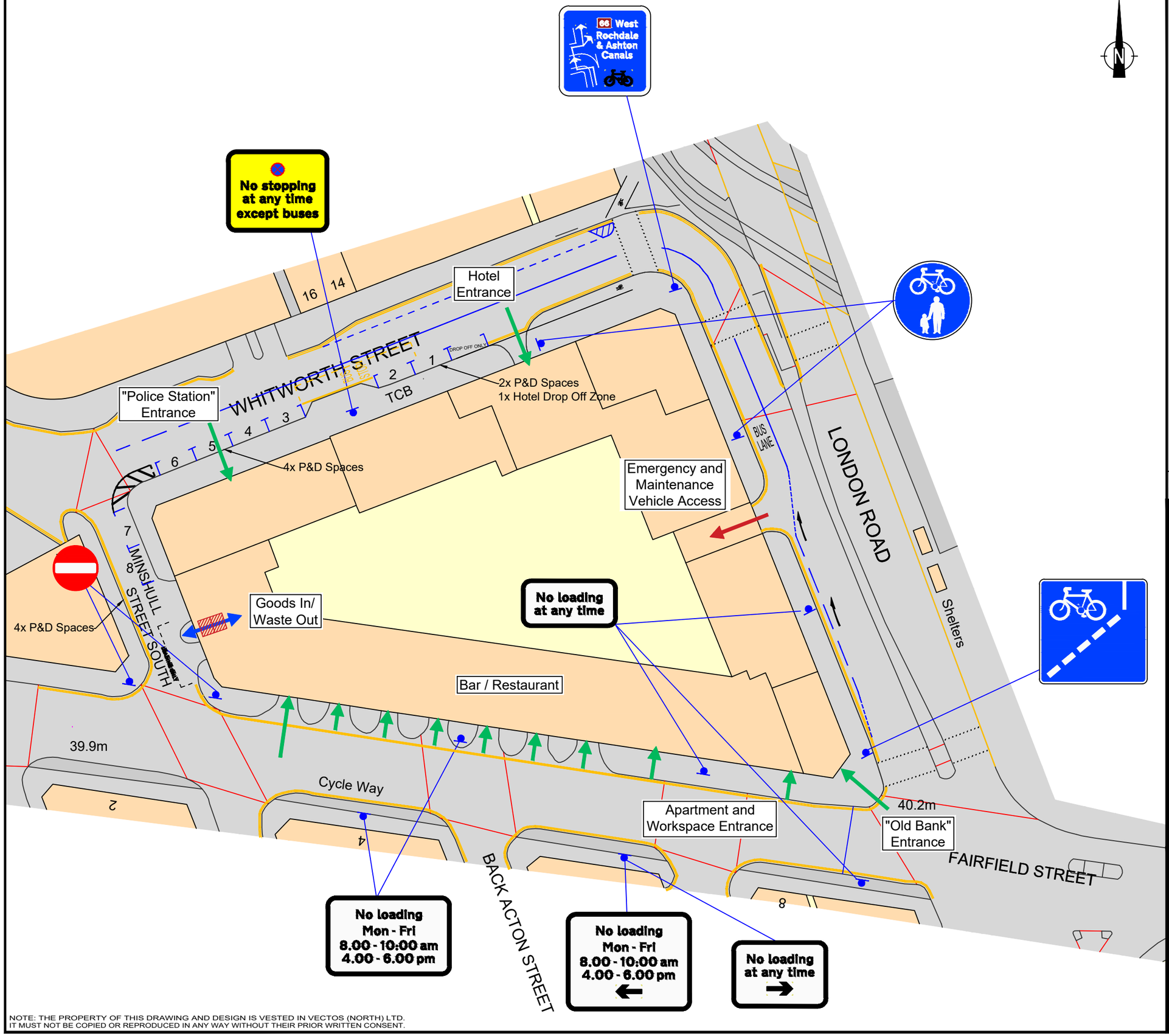
File location
C:\Revit Local\3336_London Rd Firestation_CENTRAL_gillian.harrison.rvt

Revision

Levitt Bernstein
levittbernstein.co.uk

London
1 Kingsland Passage
London E8 2BB
+44 (0)20 7275 7676

Manchester
3rd HQ Building
2 Atherton Street
Manchester M3 3GS
+44 (0)161 669 8740



Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Pedestrian Access

Vehicle Access

REV.	DETAILS	DRAWN	CHECKED	DATE
C	AMENDMENTS MADE	WD	GD	05.12.19
B	AMENDMENTS MADE	HF	GD	20.04.17
A	AMENDMENTS MADE	TF	GD	14.02.17

CLIENT:

Allied London Fire Station Ltd

PROJECT:

London Road Fire Station, Manchester

DRAWING TITLE:

Proposed Road Layout

SCALES:

N.T.S

DRAWN:	CHECKED:	DATE:
PJ	TR	26.07.16

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DRAWING NUMBER: VN60607-D111

REVISION: C

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1 2020 -01 Basement Waste Access & Servicing
1 : 200

0 2m 4m 6m 8m 10m 20m

N

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

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Purcell shall be notified in writing of any discrepancies.

Key Plan
not to scale

Key:

- Proposed Lift
- Proposed Stairs
- Existing Stairs
- Existing Lift (Not In-Use)
- Waste Collection Points
- Accessible Bedrooms
- Bin Store
- Substation
- Level Access
- Stepped Access
- Waste Out
- Deliveries In
- Access
- Managed with Portable Ramp

REV	DATE	DESCRIPTION
1	05/12/19	For Planning
2	06/12/19	For Planning

CLIENT
Allied London

PROJECT
London Road Fire Station

JOB NUMBER
240242

PURCELL

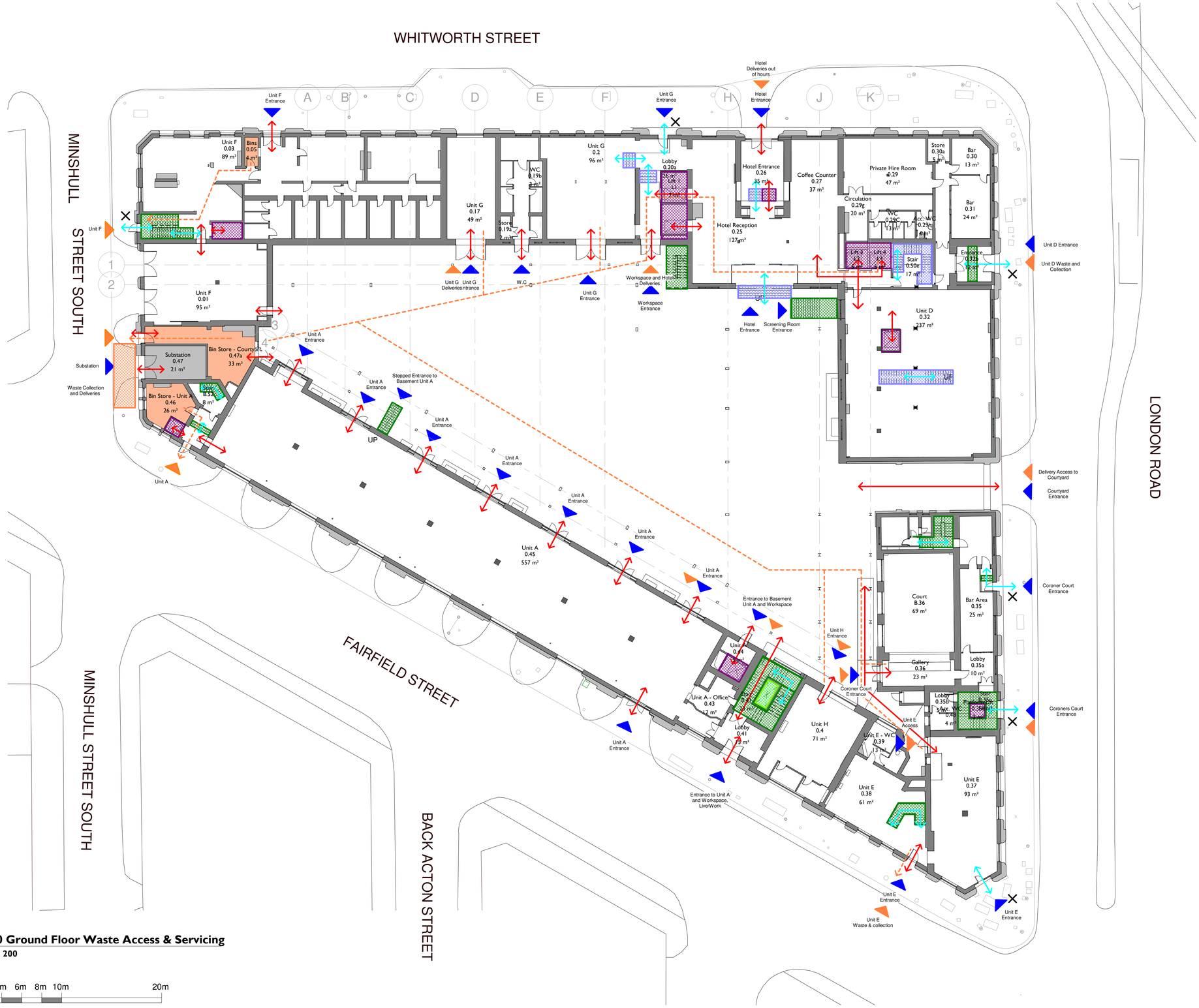
TITLE
Basement Waste, Access and Servicing Strategy

SIZE	SCALE	LAST REVISED	DRAWN	CHECKED
A1L	1 : 200	06/12/2019 11:39:20	Author	Checker

REV	SUITABILITY/REASON FOR ISSUE
2	**S2 FOR PLANNING**

DRAWING NUMBER
240242-PUR-FS-A-2020

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1 / 2021 **00 Ground Floor Waste Access & Servicing**

1 : 200

N

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Key Plan
not to scale

Key:

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- Waste Out
- Deliveries In
- Access
- Managed with Portable Ramp

REV	DATE	DESCRIPTION
1	05/12/19	For Planning
2	06/12/19	For Planning
3	06/12/19	Minor amendments

CLIENT
Allied London

PROJECT
London Road Fire Station

JOB NUMBER
240242

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TITLE
Ground Floor Waste, Access and Servicing Strategy

SIZE	SCALE	LAST REVISED	DRAWN	CHECKED
A1L	1 : 200	06/12/2019 15:20:33	Author	Checker

REV	SUITABILITY/REASON FOR ISSUE
3	**S2 FOR PLANNING**

DRAWING NUMBER
240242-PUR-FS-A-2021

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01 First Floor Waste Access & Servicing
1 : 200

0 2m 4m 6m 8m 10m 20m

Notes:

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All dimensions are in millimeters unless noted otherwise.

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Key Plan
not to scale

Key:

- Proposed Lift
- Proposed Stairs
- Existing Stairs
- Existing Lift (Not In-Use)
- Waste Collection Points
- Accessible Bedrooms
- Bin Store
- Substation
- Level Access
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- Waste Out
- Deliveries In
- Access
- Managed with Portable Ramp

REV	DATE	DESCRIPTION
1	05/12/19	For Planning
2	06/12/19	For Planning
3	06/12/19	Minor amendments

CLIENT
Allied London

PROJECT
London Road Fire Station

JOB NUMBER
240242

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TITLE
First Floor Waste, Access and Servicing Strategy

SIZE	SCALE	LAST REVISED	DRAWN	CHECKED
A1L	1 : 200	06/12/2019 15:20:35	Author	Checker

REV 3
SUITABILITY/REASON FOR ISSUE S2 FOR PLANNING

DRAWING NUMBER
240242-PUR-FS-A-2022

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1 2023 **02 Second Floor Waste Access & Servicing**

1 : 200

0 2m 4m 6m 8m 10m 20m

N

Notes:

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All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

Key Plan
not to scale

Key:

- Proposed Lift
- Proposed Stairs
- Existing Stairs
- Existing Lift (Not In-Use)
- Waste Collection Points
- Accessible Bedrooms
- Bin Store
- Substation
- Level Access
- Stepped Access
- Waste Out
- Deliveries In
- Access
- Managed with Portable Ramp

REV	DATE	DESCRIPTION
1	05/12/19	For Planning
2	06/12/19	For Planning
3	06/12/19	Minor amendments

CLIENT
Allied London

PROJECT
London Road Fire Station

JOB NUMBER
240242

PURCELL

TITLE
Second Floor Waste, Access and Servicing Strategy

SIZE	SCALE	LAST REVISED	DRAWN	CHECKED
A1L	1 : 200	06/12/2019 15:20:36	Author	Checker

REV 3 — **SUITABILITY/REASON FOR ISSUE** **S2 FOR PLANNING**

DRAWING NUMBER
240242-PUR-FS-A-2023

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I 2024 **03 Third Floor Waste Access & Servicing**

I : 200

0 2m 4m 6m 8m 10m 20m

N

Notes:

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Key Plan

not to scale

Key:

- Proposed Lift
- Proposed Stairs
- Existing Stairs
- Existing Lift (Not In-Use)
- Waste Collection Points
- Accessible Bedrooms
- Bin Store
- Substation
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REV	DATE	DESCRIPTION
1	05/12/19	For Planning
2	06/12/19	For Planning
3	06/12/19	Minor amendments

CLIENT

Allied London

PROJECT

London Road Fire Station

JOB NUMBER

240242

PURCELL

TITLE

Third Floor Waste, Access and Servicing Strategy

SIZE	SCALE	LAST REVISED	DRAWN	CHECKED
A1L	1 : 200	06/12/2019 15:20:38	Author	Checker

REV	SUITABILITY/REASON FOR ISSUE
3	**S2 FOR PLANNING**

DRAWING NUMBER

240242-PUR-FS-A-2024

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APPENDICES

APPENDIX A – MCC WASTE PROFORMA

Allied London Fire Station Ltd

LONDON ROAD FIRE STATION, MANCHESTER

MCC Waste Proforma

VN60607

December 2019

4th Floor Oxford Place, 61 Oxford Street, Manchester M1 6EQ
Tel: 0161 228 1008 www.vectos.co.uk
Company no. 07794057
Registered address: Vectos North Limited, 4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ

REPORT CONTROL

Document:	MCC Waste Proforma
Project:	London Road Fire Station, Manchester
Client:	Allied London Fire Station Ltd
Job Number:	VN60607
File Origin:	N:\Vectos Job Data\2016\VN60607 London Road Fire Station\2019\Reports

Document Checking:

Primary Author	Elliot Read	**Initialled:**	ER
Contributor	Elliot Read	**Initialled:**	ER
Review By	Gareth Davis	**Initialled:**	GD

1 INTRODUCTION

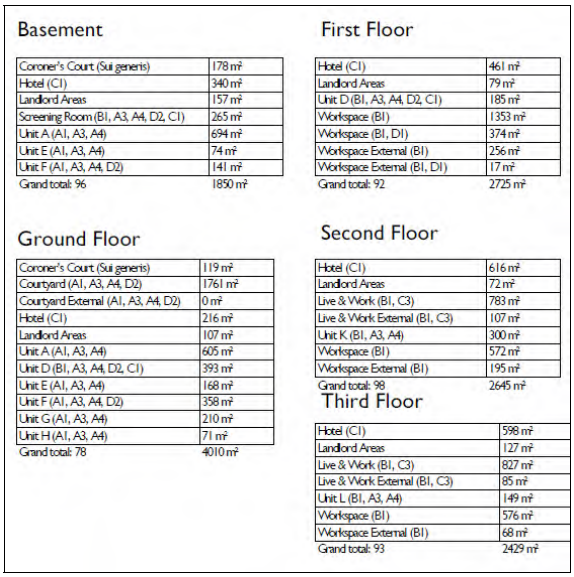
1.1 Background

1.1.1 This Waste Proforma has been prepared by Vectos on behalf of Allied London Fire Station Ltd in support of the proposed redevelopment of the London Road Fire Station in Manchester city centre, to provide a mix of uses including a hotel, food and beverage, live/workspace, function/events and leisure space.

1.2 Proposed Development

1.2.1 The development proposals seek to invest in the historic London Road Fire Station building, and in parallel introduce wide ranging new uses and amenities to create an efficient operation for a long-term shared community.

1.2.2 The scheme will be of the highest quality and aims to reinvent the building for future use. The proposed mix of uses for the site are flexible to some degree at this stage, however the area schedule and floor plans are provided in **Dwg 240242-PUR-FS-ZZ-DR-A-7001**, with an extract also provided below.



Basement

Coroner's Court (Sui generis)	178 m²
Hotel (C1)	340 m²
Landlord Areas	157 m²
Screening Room (B1, A3, A4, D2, C1)	265 m²
Unit A (A1, A3, A4)	694 m²
Unit E (A1, A3, A4)	74 m²
Unit F (A1, A3, A4, D2)	141 m²
Grand total: 96	1850 m²

First Floor

Hotel (C1)	461 m²
Landlord Areas	79 m²
Unit D (B1, A3, A4, D2, C1)	185 m²
Workspace (B1)	1353 m²
Workspace (B1, D1)	374 m²
Workspace External (B1)	256 m²
Workspace External (B1, D1)	17 m²
Grand total: 92	2725 m²

Ground Floor

Coroner's Court (Sui generis)	119 m²
Courtyard (A1, A3, A4, D2)	1761 m²
Courtyard External (A1, A3, A4, D2)	0 m²
Hotel (C1)	216 m²
Landlord Areas	107 m²
Unit A (A1, A3, A4)	605 m²
Unit D (B1, A3, A4, D2, C1)	393 m²
Unit E (A1, A3, A4)	168 m²
Unit F (A1, A3, A4, D2)	358 m²
Unit G (A1, A3, A4)	210 m²
Unit H (A1, A3, A4)	71 m²
Grand total: 78	4010 m²

Second Floor

Hotel (C1)	616 m²
Landlord Areas	72 m²
Live & Work (B1, C3)	783 m²
Live & Work External (B1, C3)	107 m²
Unit K (B1, A3, A4)	300 m²
Workspace (B1)	572 m²
Workspace External (B1)	195 m²
Grand total: 98	2645 m²

Third Floor

Hotel (C1)	598 m²
Landlord Areas	127 m²
Live & Work (B1, C3)	827 m²
Live & Work External (B1, C3)	85 m²
Unit L (B1, A3, A4)	149 m²
Workspace (B1)	576 m²
Workspace External (B1)	68 m²
Grand total: 93	2429 m²

1.3 The Waste Proforma

1.3.1 This Proforma sets out the policy context for waste management, forecast the waste generated, the number of bins required, the collection frequency, the management and oversight of the waste collection strategy.

Appendix E

Proforma for Planning Applications

MANCHESTER CITY COUNCIL

Planning Application - Waste Management Strategy

Planning Application Number: To be confirmed
Date Submitted: November 2019

Estimated volumes/ m^2 required by the development

Low Rise Domestic

Waste Types	Capacity Required (litres)	Number of bins required per household	Confirm what is to be provided
General refuse	140 / 240	Not applicable for this application.	Not applicable for this application.
Pulpable Recycling	140 / 240	Not applicable for this application.	Not applicable for this application.
Mixed Recycling	140 / 240	Not applicable for this application.	Not applicable for this application.
Garden Waste	140 / 240	Not applicable for this application.	Not applicable for this application.
Food Waste	-	Not applicable for this application.	Not applicable for this application.

High Rise Apartment Developments

	Yes/No - how much space has been provided?
0.43m^2 has been provided per apartment for the container space. Space to maneuver and access containers individually has also been provided so that each container can be accessed and removed for collection individually.	Not applicable for this application as the development proposes live/work units rather than traditional apartments.

Please state number of bins you propose, showing calculations where appropriate.

WASTE ASSUMPTIONS AND FORECASTS

Live/work space

As the development proposes live/work space, this has been assessed as a flexible space and as such waste calculations have been made as follows:

One third apartments generating waste at a rate of 110 litres per apartment per week; and two thirds workspace generating waste at a rate of B1 office space of 1 person per 10m² and 50 litres of waste per week per person, based on guidance contained within BS 5906:2005.

The weekly residential waste calculation is therefore 15 x 110 litres of waste, equating to 1,650 litres of waste per week for apartment use. The waste generated by the workspace is (3,475m² / 10) x 50 = 17,375 litres of waste per week.

Hotel

The assumed generation of waste for hotel use is based on British Standard Guidance forecasts BS 5906:2005 for a 4/5 star hotel. This forecasts 350 litres of waste per bedroom. This figure is assumed to include some restaurant uses as part of the hotel's overall operation. The calculation is 42 x 350 = 14,700 litres of waste per week.

Food/Beverage

Under BS 5906:2005 the generation of waste for restaurants is 75 litres per cover per week. It is assumed that collectively the development will accommodate 350 food-led covers and as such will generate 26,250 litres of waste per week. There are three main bar areas within the development other than ancillary bar areas used for the hotel. As such, in order to provide a robust assessment, it has been assumed that each additional bar will generate 3,660 litres per bar per week. This equates to 10,980 litres per week

Function/Events Space

The retail unit is expected to generate waste at the rate of a typical A1 store. Using BS 5906:2005 the generation of waste is 10 litres per week per m². This equates to 14,110 litres of waste per week

Retail

The retail unit is expected to generate waste at the rate of a typical A1 store. Using BS 5906:2005 the generation of waste is 10 litres per week per m². This equates to 1,054 litres of waste per week.

OVERALL REFUSE CONTAINER PROVISION AND RECYCLING RATES

The recycling proportions for the various waste streams are shown in the tables below.

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
49%	24%	24%		3%
809	396	396		50

Apartment Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
30%	50%	13%	2%	5%
5213	8688	2259	348	869

Workspace Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
71%	8%	4%	15%	2%
10437	1176	588	2205	294

Hotel Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
10%	22%	7%	21%	40%
2625	5775	1838	5513	10500

Restaurant Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
17%	25%	25%	33%	0%
1867	2745	2745	3623	0

Bar Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
71%	8%	4%	15%	2%
10018	1129	564	2117	282

Function Space Waste

General Refuse	Paper/Card	Co-Mingled		Organic
		Plastic/Metal	Glass	
50%	25%	25%		0%
527	264	264		0

Retail Waste

REFUSE CONTAINER PROVISION AND LOCATION OF REFUSE STORAGE

A total of 22x 770 ltr Eurobins can be stored within the refuse stores within the building and within the demise of the Engine Room's own demise. There are two refuse stores located at ground level and one at basement level. These are both located adjacent to Minshull Street and provide a sufficient space for the storage of the required 770ltr Eurobins.

It is also noted that some units will take wheel waste from their internal storage areas to Fairfield Street where collection will take place outside the peak traffic periods, as per the existing regulation order. This is described in more detail in the next section of the Proforma.

Waste generated by the Engine Room will be stored within this use's own demise and taken directly out onto Fairfield St for collection daily. It is expected that this waste will be stored within the aforementioned internal refuse stores. It will be the responsibility of the occupier to take the waste to the bin store should this be part of their overall waste transfer strategy.

Drivers delivering goods to the London Road Fire Station would take the goods into the building from the loading bay to the goods lifts to ground floor level, or to basement level if warranted. Any waste generated at basement level will be brought up to ground floor prior to collection via the good lift. This is expected to be glass waste generated by the bar and will be taken out to Fairfield Street or Minshull Street daily.

Has / will a contract be obtained with a licensed waste carrier?	Yes

Mixed Use Developments

Are the stores for residential and commercial separate from each other?	Yes

Internal Stores

Please provide details of internal stores / segregation of waste and recycling.

The bins will be designated according to the individual waste streams and the occupiers will be instructed to deposit their rubbish in the appropriate bin. Direct assess is provided to Minshull Street from both refuse stores. The plans discussed below are provided in the Waste and Servicing Strategy.

Each occupier of the development will initially store waste within their own demise. Given the position of a proportion of the occupiers of London Road Fire Station, the overall waste strategy will comprise refuse containers being brought out onto street directly from various units. As shown in **Dwg LRFS-PUR-01-B1-DR-A-2020**, hotel waste stored within refuse containers in the basement level refuse store and will be wheeled to the service lift. Waste will then be transferred to the ground floor refuse store via the service lift as shown in the plan and transferred through the courtyard, before collection takes place from Minshull Street. These refuse stores are both located adjacent to Minshull Street and provide a sufficient space for the storage of the required 770ltr Eurobins.

Also shown on this plan is the waste collection point from Minshull Street. Waste will be wheeled in refuse containers to and from these refuse stores via the doorway shown on the plan.

As shown in **Dwg LRFS-PUR-01-00-DR-A-2021**, there are two refuse stores located at ground floor level. These will primarily be used to store live/work waste and waste from any ancillary uses. Also shown on this plan are the routes that waste will be wheeled to this refuse store. The plan also shows waste being transferred to Fairfield Street from the south-eastern corner of the building prior to collection which can be done outside of peak traffic hours, as per existing traffic regulation orders.

The route that waste will be transferred from the first level of the development is shown in **Dwg LRFS-PUR-01-01-DR-A-2022**. The plan shows the route that waste will take form the various units situated on first floor level to the service lift where waste will then be taken to the ground floor bins store, or basement level bins store if deemed appropriate. This is also the case for the second and third floor waste transfer routes to the north of and south of the building via utilisation of the service lifts, as shown in **Dwg LRFS-PUR-01-02-DR-A-2023** and **Dwg LRFS-PUR-01-03-DR-A-2024**.

Waste generated by the Engine Room will be stored within this use's own demise and taken directly out onto Fairfield St for collection daily. It will be the responsibility of the occupier to take the waste to the bin store should this be part of their overall waste transfer strategy. As outlined, any waste generated at basement level will be brought up to ground floor prior to collection via the good lift. This is expected to be glass waste generated by the bar and will be taken out to Minshull Street or Fairfield Street daily. As shown in Table 4.1, a total that 22x 770 ltr Eurobins can be stored within site's refuse stores and within the demise of the Engine Room's own demise.

Bins will be designated according to the individual waste streams and the occupiers will be instructed to deposit their rubbish in the appropriate bin. The on-site management will have responsibility for keeping the refuse stores clean. They will also have responsibility for ordering waste collections and they or the waste collection operatives to will take the bins from the basement up to Fairfield Street/Minshull Street.

Storage Areas for Waste Containers

Please provide details of container stores, attaching plans if appropriate.

As shown in this Waste Proforma, the two refuse stores will be located at ground level will also be located adjacent to Minshull Street and direct access will be provided to this road where collection will take place.

The quantum of refuse containers along with the proposed provision is outlined previously within this Proforma. Based on the space available in both refuse stores, it is expected the sufficient space will be available regarding a x5 collection frequency.

Please confirm details of waste store ventilation and hygiene / cleaning proposals

Ventilation -
The location is not enclosed and is freely ventilated.

Hygiene -
The floor and walls of the two refuse stores will be constructed and finished in materials that are impervious and easily kept clean.

Ensure all bins in the store are accessible The refuse stores will not be accessible by the general public. However, the bins are accessible to building management and cleaners. The bin storage area includes space for maneuvering and sufficient clearance will be provided at the location of the doors.	**Y**
Ensure recycling facilities are as easy to access as general refuse	**Y**

Note: Overall waste management would be undertaken by the on-site staff member/management company who would monitor the cleanliness on a regular basis and would ensure that all areas of the site are kept clean as required.

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident/ management company.

The on-site staff overseen by the General Manager would call the refuse collection as required to make a collection. It is expected that this would be on a regular basis with additional collections as required.

The refuse collection company operatives would take the bins from the refuse stores to the refuse vehicle and will return the bins to the bin store immediately after collection has taken place. This would be under the direction of the General Manager.

Please ensure that you have attached:

Detailed plans of waste stores	**Y** – please see site layout plans
Location plans showing stores	
Location plans showing the proposed collection point and the route the collection vehicle will take	**Y** – detailed within the Waste and Servicing Strategy

Please ensure that you have completed this form in accordance with our GD04 Waste Storage and Collection Guidance for New Developments.