ORIANA
OXFORD STREET

Servicing Management Plan

May 2011

MILESTONE
TRANSPORT PLANNING

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OXFORD STREET

Servicing Management Plan

May 2011

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1. INTRODUCTION

1.1 Planning approval, subject to a Section 106 Agreement, was granted by the City of Westminster on 3 February 2011 for two planning applications related to the proposed development at 14-28 Oxford Street and 3 Tottenham Court Road, London W1 (LPA Refs. 10/08212/FULL & 10/09640/FUL). Both applications relate to the redevelopment of the site to erect a new 5-storey building plus basement to be occupied by Primark Stores Limited, the building having frontage to Oxford Street, Tottenham Court Road and Hanway Street.

1.2 The first permission covers works to the building itself including the provision of a new vehicular service entrance / loading bay on the Hanway Street frontage. The second permission relates to the highway works to widen the carriageway and facilitate two-way working on Hanway Street from Tottenham Court Road to the service entrance / loading bay.

1.3 As the proposed highway works fell within two Borough boundaries a separate duplicate planning application was also made to the London Borough Camden (LPA Ref. 10/08213/LBC) for the proposed highway works to Hanway Street. Planning consent was also granted by LB Camden, subject to a Section 106 Agreement, on 13 January 2011 and LB Camden raised no objection to the application related to the building works.

1.4 All three planning applications were accompanied by a detailed Servicing & Access Statement plus supplementary information that provided the following:

- The planning history of the site and policy context in so far as it relates to highways and transport;
- The locational characteristics of the application site in the context of access by sustainable modes of travel;
- An assessment of current vehicular, pedestrian and cycle activity and movements along Hanway Street and Tottenham Court Road;
- A detailed description of the development proposals;
- An assessment of the potential trip generation of the proposed development by mode of travel including vehicle types and traffic generational characteristics;
- The proposed access strategy, particularly as it relates to servicing and deliveries and the scheduled timing of these deliveries;
- The impact of delivery vehicle movement on the operation of the surrounding road network; and
- Details in respect of the proposed modifications to existing highway infrastructure on Hanway Street.

1.5 To inform the Servicing an Access Statement, the following additional information was provided:

- An independent Stage 1 Safety Audit conducted by Gateway TSP in respect of the proposed modifications to existing highway infrastructure on Hanway Street to accommodate the movement of delivery vehicles;
- A report completed by Hamilton Deed, an independent Health & Safety consultancy, on the operation of the Hanway Street delivery yard; and
- Activity surveys undertaken on Hanway Street / Tottenham Court Road over the period Thursday 28 October – Monday 1 November 2010 continuously recording both pedestrian and vehicular movement along both corridors.
- The 'Heads of Terms' of a Servicing Management Plan to be implemented by Primark Stores Limited upon occupation of the proposed development.

1.6 A planning obligation of the consents granted by the City of Westminster and LB Camden is the inclusion of a Servicing Management Strategy within the respective Section 106 Agreements, building upon the heads of terms document already prepared *"...to further ensure that the servicing proposals minimise potential conflicts between Primark delivery vehicles and other road users and pedestrians..."* [Extract of City of Westminster Planning Committee Report 3 February 2011].

1.7 The remaining sections of this report set out the detail of the Servicing Management Strategy (SMP) for the proposed Primark Store.

1.8 Both the applicant, Oriana GP Limited, and the operator, Primark Stores Limited, are committed to ensuring that the safety of existing road users on Hanway Street and Tottenham Court Road, particularly pedestrians, and the amenity of neighbouring properties is upheld during periods when deliveries to the store take place.

1.9 The SMP addresses such matters as the number / timing of deliveries, the type / routing of delivery vehicles and operational practices to be put in place to ensure the safe, efficient movement of delivery vehicles in and around the rear service yard off Hanway Street.

1.10 The SMP has been worked up in conjunction with the Logistics Manager at Primark Stores Limited who has confirmed that all of the listed requirements and measures can be carried out efficiently as part of the daily store and delivery operations.

1.11 The SMP will be implemented prior to the commencement of operations at the store and thereafter regularly reviewed and updated in conjunction with officers at both Camden and Westminster Councils to ensure that it remains current.

2. DELIVERY VEHICULE ACTIVITY

Delivery Requirements

2.1 The Primark retail operation has specific servicing requirements that will require a specified number of deliveries to the Hanway Street loading bay at the rear of the property during trading hours and the immediate period leading up to the opening of the store plus deliveries to the Oxford Street frontage of the store outside of trading hours, after closing.

2.2 Based upon the size of the store, Primark's Logistics Manager has advised that there will be a requirement to deliver around 5,500 – 6,000 cartons of goods per day (approx. 60 tonnes) over a 7-day period, including Sundays, under standard trading conditions.

2.3 Around 25 – 30% of stock delivered to the store would be moved straight onto the shop floor with the remainder being moved forward into the storage area at basement level. Throughout the night staff will empty the stock room and fill the balance of the shop floor, creating space for the following days' deliveries. Generally the earlier deliveries in the schedule will tend to have a higher stock room balance.

2.4 Primark Stores Limited's delivery regime is based upon a highly sophisticated, computerised stock control system and their success is built upon the ability to pre-empt what products / lines will sell at any given time of the day. By direct linkage between the store and the Logistics Centre, deliveries of products / lines that will be turned over during the day will be delivered before peak shopping times to ensure that shelves / racks are kept fully stocked.

2.5 Primark Stores Limited have developed and successfully operated this delivery regime over many years at their other stores in London, including 499 Oxford Street, London W1 (towards the Marble Arch end of Oxford Street), as well as other stores throughout the UK and Europe.

Delivery Vehicle Specifications

2.6 Primark Stores Limited will operate two types of vehicle for deliveries to the Oxford Street store, all of which are Euro 4 or Euro 5 equivalent, as follows:

- An 18.5T, 10.8 metre long fixed wheelbase rigid vehicle (for daytime deliveries)
- A 40T, 15.5 metre long articulated vehicle (for overnight deliveries)

2.7 The majority of the fleet is made up of the 18.5T rigid vehicle type. These vehicles typically have a cubic capacity of 56m^3, equivalent to around 450 cartons of stock. The fleet is made up of vehicles from a number of manufacturers, all of which vary slightly in terms of dimensions. The most common vehicle in the fleet is the Iveco model 180 E25 EEV that has an overall length of 10.8 metres. The full specification of the Iveco model is included as Annex A to the SMP.

2.8 Due to the physical and operational constraints of Hanway Street, Primark Stores Limited will only use vehicles from its 18.5T fleet to access to the service entrance / loading bay of the store.

2.9 The 40T articulated vehicles have a much greater cubic capacity (typically around 90 - 95m^3) and therefore have the capability to carry around 750 cartons of stock. These vehicles will solely be used by Primark Stores Limited for the limited number of overnight deliveries that will be taken through the Oxford Street frontage of the store.

2.10 With the exception of bus stops and the approaches to side road junctions, loading and deliveries are permitted along the majority of the road frontage on Oxford Street between 9pm and 7am. The ability to undertake on-street loading and delivery is used extensively by the mainly retail functioning properties along Oxford Street.

Delivery Schedule

2.11 In order to meet the trading demand of the store, Primark Stores Limited require a total of 11 no. daytime deliveries and 2 no. overnight deliveries under 'standard' trading conditions. For the purposes of this SMP, standard trading conditions are defined as all periods excluding the 7-week period from the October half-term leading up to Christmas and a 4-week period around Easter.

2.12 Under 'peak' trading conditions (i.e., the 7-week period leading up to Christmas and a 4-week period around Easter) there is a requirement for a further 4 no. deliveries to the store to meet trading demand. As noted in Figure 1 these additional 'peak trading' deliveries will take place out of hours (i.e. between 21:00 and 07:00 hours) from Oxford Street.

2.13 For the purposes of the SMP, Primark Stores Limited have confirmed that the schedule outlined above would operate 6 days a week (i.e. Monday to Saturday inclusive) with the possibility of a slightly reduced schedule on Sundays.

2.14 Following the City of Westminster Planning Committee meeting (3 February 2011), it was agreed with Primark Stores Limited that the earliest permitted delivery time through the service entrance / loading bay on Hanway Street would be 07:00 hours (Primark vehicles only). Should deliveries before 07:00 hours be required by Primark Stores Limited then this will be undertaken from the front of the store on Oxford Street, subject to the Traffic Regulation Orders that are in place.

2.15 The daily delivery schedule, including the type of vehicle used for each delivery is shown in Figure 1.

Figure 1 Daily Delivery Schedule

Time of Arrival at Store	Vehicle Type	Load	Access Point
06:00	18.5t or Artic	450 or 750 cartons dependant on type of vehicle used	Oxford St
07:00	18.5t	450 cartons	Hanway St
08:00	18.5t	450 cartons	Hanway St
09:00	18.5t	450 cartons	Hanway St
10:00	18.5t	450 cartons	Hanway St
11:00	18.5t	450 cartons	Hanway St
11:00 – 14:00	NO DELIVERIES		
14:00	18.5t	450 cartons	Hanway St
15:00	18.5t	450 cartons	Hanway St
16:00	18.5t	450 cartons	Hanway St
16:00 – 19:00	NO DELIVERIES		
19:00	18.5t	250 sets (hanging garments)	Hanway St
20:00	18.5t	450 cartons	Hanway St
21:15	Artic	750 cartons	Oxford St
22:15	Artic	750 cartons	Oxford St
Note: 'Peak' trading periods require an additional 4 no. deliveries by 18.5t vehicles (450 cartons) These deliveries to be undertaken between 21:00 hrs and 07:00 hrs off Oxford Street			

Timing of Deliveries

2.16 As noted in the Delivery Schedule in Figure 1 above, deliveries would be managed such that vehicles arriving at the store would be equally spaced in hourly intervals such that no more than one vehicle is at the store at any given time.

2.17 Four to five operatives would be employed by Primark to offload the delivery vehicle upon arrival at the store. After the dispatch of goods and prior to returning from the store to the Distribution Centre, delivery vehicles would be loaded with waste packaging, cardboard and hangars for recycling. The total time that a delivery vehicle will be stationary, either within the loading bay off Hanway Street or on Oxford Street, is typically in the region of 35-40 minutes.

Routing Strategy

2.18 Primark operate two UK-wide Distribution Centres located in Thrapston, Northamptonshire and Magna Park, near Hinckley in Leicestershire. All stock deliveries to the new store would be broadly split 50% / 50% from these centres.

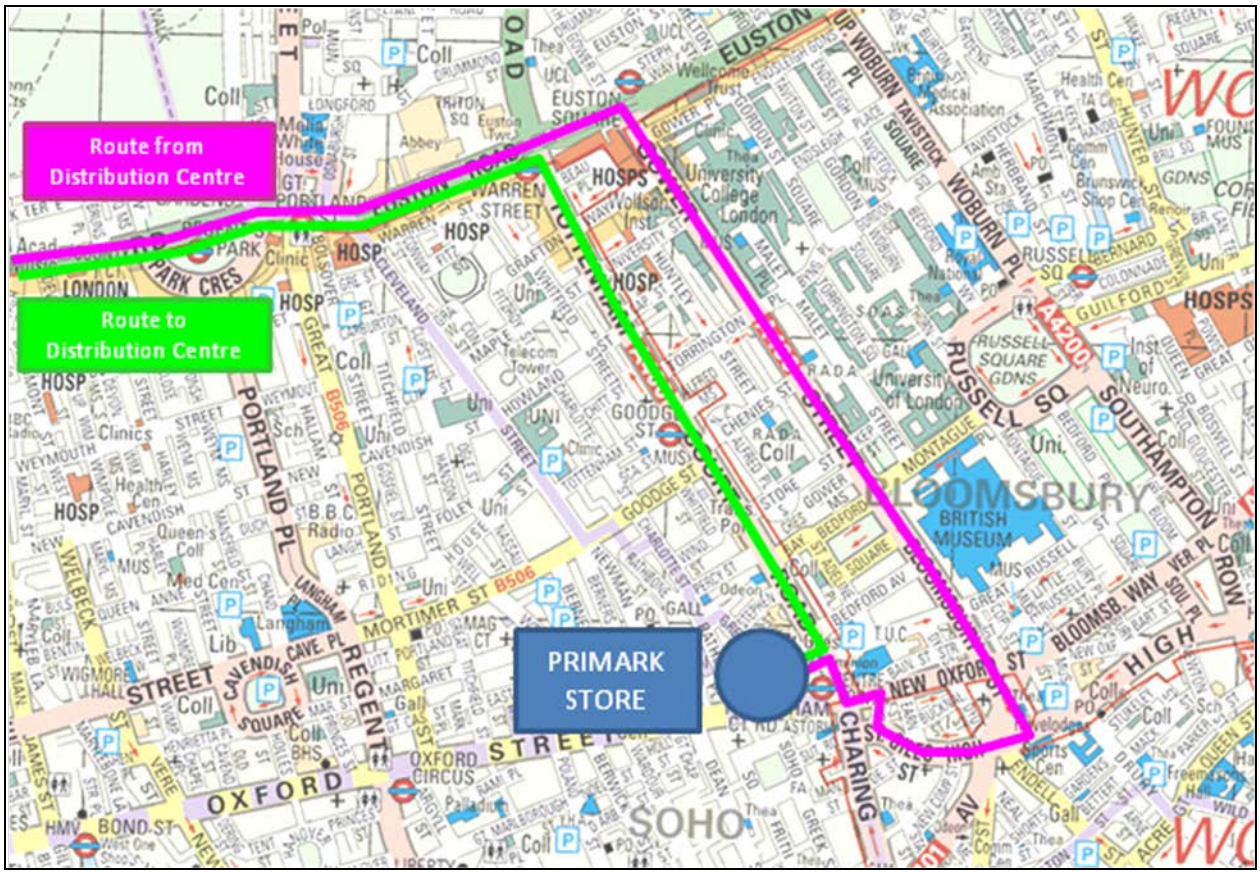
2.19 The route followed by delivery vehicles would then by via the M1 motorway to London Gateway services (Scratchwood) in north-west London. They would then proceed around the A406 North Circular Road, the A40 Western Avenue and the A501 Marylebone Road / Euston Road, using the same routes on return to the Distribution Centre.

2.20 The route to / from the A501 Euston Road to the Hanway Street Loading Bay is as follows:

- From A501 Euston Road to Hanway Street Loading Bay
  - Turn right into A400 Gower Street, straight ahead onto Bloomsbury Street, right into A40 St Giles High Street, right into Bain Street (temporary diversion during LUL/Crossrail works), left into A40 New Oxford Street, right into A400 Tottenham Court Road, left into Hanway Street.
- From Hanway Street Loading Bay to A501 Euston Road:
  - Left out of Hanway Street into A400 Tottenham Court Road then left into A501 Euston Road.

2.21 Figure 2 illustrates the Routing Strategy to / from the A501 Euston Road for delivery vehicles to the Hanway Street loading bay.

Figure 2 Prescribed Routes to / from Hanway Street Loading Bay

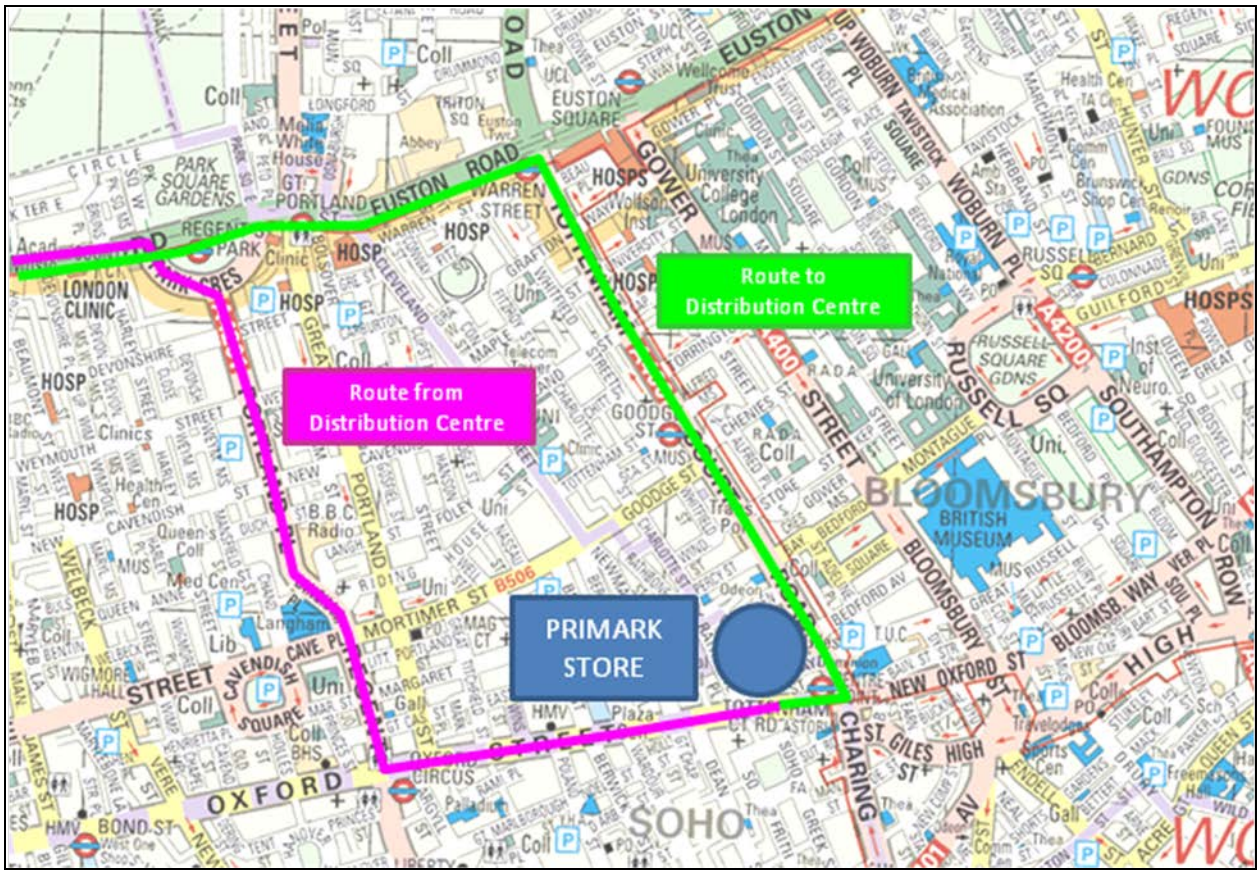


2.22 The route to / from the A501 Euston Road to the Oxford Street (for overnight deliveries only) is as follows:

- From A501 Euston Road to Oxford Street
  - Turn right into Park Crescent (Regents Park) then proceed into A4201 Portland Place / Regent Street to Oxford Circus, turn left into A40 Oxford Street.
- From Hanway Street Loading Bay to A501 Euston Road:
  - Left out of A40 Oxford Street into A400 Tottenham Court Road then left into A501 Euston Road.

2.23 Figure 3 illustrates the Routing Strategy to / from the A501 Euston Road for overnight delivery vehicles to Oxford Street.

Figure 3 Prescribed Routes to / from Oxford Street (Overnight Deliveries Only)



2.24 Primark Stores Limited will operate a 'call-forward' system using global positioning software to track the movement of vehicles to and from the store. When a preceding vehicle is being off-loaded at the store, the handling staff will contact the driver of the next delivery who will then depart from the services allowing for a typical journey time of 45 minutes. By the time of arrival at the store, the preceding vehicle will have departed.

2.25 This system is well tested and is based upon the model employed by the operator for their existing store at 499 Oxford Street, London W1.

2.26 The 'call forward' system is designed specifically to ensure that there will be no occurrence of an arriving delivery vehicle waiting for the previous delivery to vacate the loading bay. In the case of the new store, this will ensure that potential vehicle conflicts on Tottenham Court Road or delays arising from the same are avoided. The system involves direct communication between the driver and the yard supervisor at all times by mobile communications.

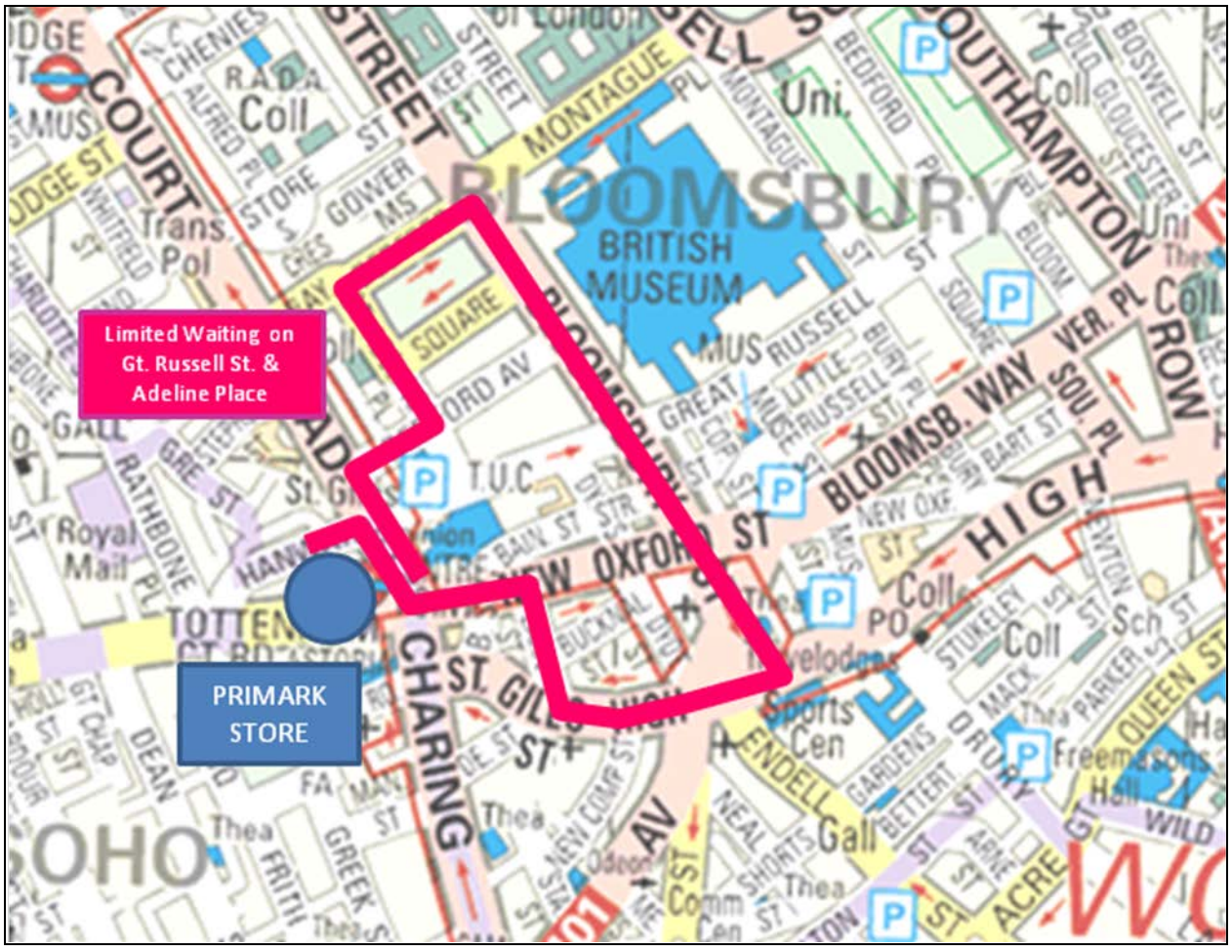
2.27 In the extremely unlikely event that the 'call forward' system fails for an unforeseen reason, the yard supervisor would make the necessary communication with the driver of the arriving vehicle to inform him to turn right from Tottenham Court Road into Great Russell Street, opposite Hanway Street. This is to ensure that at no time will there be two Primark vehicles on Hanway Street itself.

2.28 Delivery vehicles can then wait for a limited time (up to 40 minutes) on single yellow line sections of Great Russell Street or Adeline Place, subject to the Traffic Regulation Orders in place, and without impeding the free flow of traffic on these roads.

2.29 When the yard supervisor has indicated that the loading bay is free then the delivery driver can return to Hanway Street in a forward gear via Adeline Place, Bedford Square and then back onto Bloomsbury Street to retrace their route via St Giles Circus and Tottenham Court Road.

2.30 Figure 4 illustrates the prescribed route to avoid conflicting Primark delivery vehicles on Hanway Street at any one time.

Figure 4 Prescribed Routes to Avoid Conflicting Primark Movements on Hanway Street



2.31 Should the delay to the preceding vehicle be more onerous then in these circumstances the driver will be informed to return to London Gateway services (Scratchwood) in north-west London and await further instructions.

Procedure for Entry / Exit to Rear Loading Bay off Hanway Street

2.32 In order to minimise impact of Primark delivery vehicles on the flow of general traffic and pedestrian / cycle movements on Hanway Street the procedure to be followed for each delivery to the site in respect of entry and exit movements to the loading bay is as follows:

- On entry to the loading bay:
  - Turn left into Hanway Street and then left into the loading bay, towards the south-western corner of the yard in a forward gear;
  - Loading bay doors to be closed upon arrival of the vehicle within the loading bay.
- On exit from the loading bay:
  - Reverse within the loading bay to the south-eastern corner of the yard;
  - Open loading bay doors & check that Hanway Street is clear of obstruction;
  - Pull forward out of the loading bay towards the entrance of the Boots service yard opposite;
  - Reverse back into loading bay;
  - Re-check that Hanway Street is clear of obstruction;
  - Turn right out of loading bay towards Tottenham Court Road

2.33 Plan 048/SMP/01 included as Annex B to the SMP shows the sequence of movements for entry to and exit from the loading bay as described above. At all times the yard supervisor and other suitably qualified staff will be on hand at the point of arrival to and departure from the Hanway Street loading bay to assist the smooth transition of delivery vehicles, providing a visible presence to ensure that there is minimal delay to the passage of other traffic on Hanway Street and Tottenham Court Road.

2.34 Based upon the movement sequence outlined above it is only when the delivery vehicle pulls forward towards the Boots service yard and reverses back and then when it then turns right out of the loading bay towards Tottenham Court Road that there will be any potential delay to traffic on Hanway Street. Assuming a vehicle speed of 5mph (8km/h) and allowing for a time delay attributable to a change of gear, the total time for either of these manoeuvres is 12 seconds. There is also a gap between these manoeuvres to enable any build up of traffic on Hanway Street to discharge.

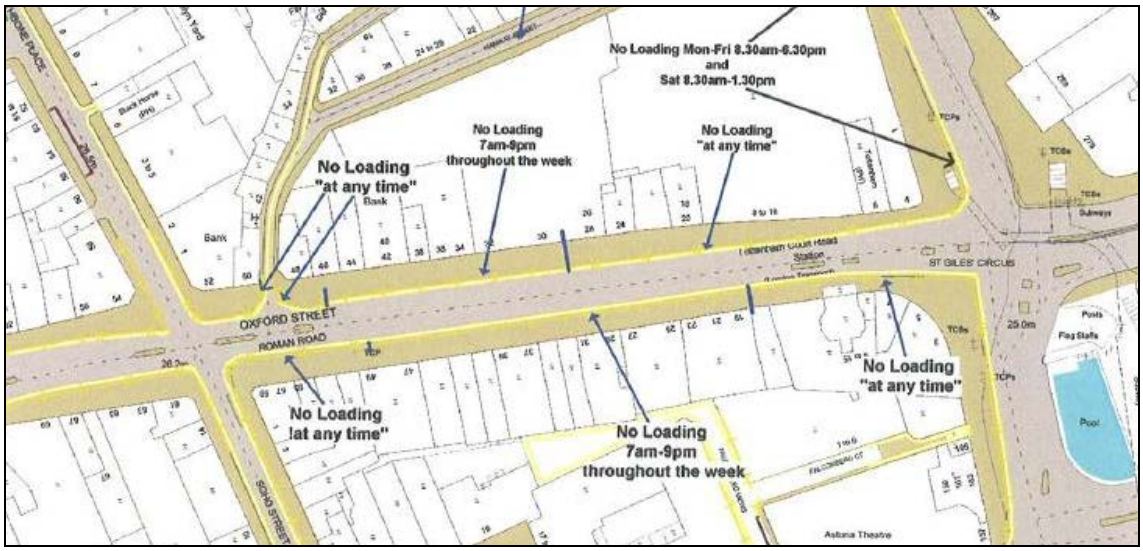
Procedure for Use of Oxford Street for Overnight Deliveries

2.35 The northern side of Oxford Street adjacent to the Primark Store is subject to existing Traffic Regulation Order (TRO) that specifies 'No Loading at any time' supported by double yellow kerb stone markings and requisite plates for a distance of 15.0 metres from the junction with Hanway Street and from the boundary of nos. 26/28 and 30 Oxford Street up to the junction with Tottenham Court Road (St Giles Circus).

2.36 The section of Oxford Street in between these locations (i.e. nos. 30 – 48 Oxford Street) is subject to a separate TRO that specifies 'No Loading 7:00am – 9:00pm' supported by single yellow kerb stone markings and requisite plates. This section of kerbside along which there are no limitations placed on loading and deliveries outside the restrictions of the TRO extends to some 62.0 metres that could accommodate up to 4 no. articulated vehicles at any one time.

2.37 As noted in the delivery schedule (Figure 1), Primark Stores Limited will limit the number of deliveries to the Oxford Street frontage of the store to 3 no. movements per day under normal trading conditions, typically at 06:00 hours, 21:15 hours and 22:15 hours. Details of the loading restrictions on Oxford Street are illustrated in Figure 5.

Figure 5 Oxford Street Loading Restrictions



3. OPERATION OF REAR LOADING BAY OFF HANWAY STREET

Loading Bay Details

3.1 Annex C to the SMP shows the loading bay arrangements from which it can be seen that a new 9.0 metre wide entrance to the loading bay will be provided to accommodate the turning movement requirements of delivery vehicles. The internal dimensions of the loading bay are 25.0 metres x 10.0 metres with a floor to ceiling height of 4.1 metres, 4.25 metres at the entrance off Hanway Street.

3.2 Goods lifts are provided at the south-western corner of the loading bay from which goods are transferred from the delivery vehicle to either the shop floor or the internal storage area. Internal access is also provided between the loading bay and the 'back of house' lobby area providing access to a stairwell and passenger lift linking into the staff welfare, operations and storage areas.

Working Practices & Procedures within the Hanway Street Loading Bay

3.3 The management of the loading bay off Hanway Street will be the sole responsibility of the yard supervisor.

3.4 The yard supervisor is responsible for the creation of safe systems of work and risk assessments relating to activities within the loading bay area. The yard supervisor in conjunction with building management will oversee the requisite training to be provided to all yard personnel and drivers. This training will highlight correct working practices and associated risks.

3.5 All yard personnel and drivers will be required to wear appropriate personal protective equipment at all times including, as a minimum, safety footwear and hi-visibility clothing.

3.6 The loading bay will be secured at all times except when vehicles are incoming and outgoing to ensure that only yard personnel and drivers will be in the area and eliminate any Health & Safety risk of unauthorised access. No persons will be permitted to enter the loading bay area without the necessary information, instruction or training.

3.7 All yard personnel and drivers will be briefed and supplied with details of Health & Safety procedures to be adhered to within the loading bay. Notices to this effect will also be clearly displaced within the loading bay, storage areas and staff welfare areas.

3.8 All yard personnel and drivers will be briefed and supplied with details of the procedures for emergency evacuation of the Primark store onto Hanway Street including muster points, escape routes and access for the emergency services. Notices to the effect of the above will also be placed within the loading bay, storage areas and staff welfare areas.

3.9 Details of the same will also be provided to neighbouring businesses upon request.

3.10 The building management will also ensure that competent fire risk assessments are undertaken with consideration given to neighbouring businesses and the yard supervisor will be furnished with a copy of the procedures.

3.11 The yard supervisor and other suitably qualified yard personnel will be on hand at all times that the Hanway Street loading bay is in operation to assist the smooth transition of incoming and outgoing delivery vehicles. 2 no. qualified employees will be on hand as banksmen to provide a visible presence and ensure that the passage of the arriving vehicle will not hold up traffic on Tottenham Court Road. Of these at least 1 no. banksman will be present at the junction of Tottenham Court Road and Hanway Street to ensure the safety of pedestrians as delivery vehicles turn across the busy pedestrian route at that junction.

3.12 Yard personnel will ensure that it is kept free from obstruction at all times to maximise operational efficiency. To protect the amenity of neighbouring properties Primark Stores Limited will not use roll cages during the offloading of vehicles in the Hanway Street loading bay in order to keep noise levels to a minimum.

Driver Training

3.13 Comprehensive driver training will be provided by Primark Stores Limited to ensure that all drivers are fully briefed and supplied with details of the routing of vehicles to / from the Distribution Centre as well as the limitations in place on the timing of deliveries and procedures for entry and exit to the loading bay as detailed within Section 2 of this SMP.

3.14 Drivers will also be fully briefed and supplied with details of the Traffic Regulation Orders in place on Hanway Street, i.e. no waiting on Hanway Street at any time, no left turn out of the loading bay and no right turn into Tottenham Court Road.

3.15 Drivers will be expected to give priority to pedestrians and other vulnerable road users and to keep vehicle speeds to a minimum at all times when using the section of Hanway Street between the junction of Tottenham Court Road and the loading bay.

3.16 Comprehensive driver training is also provided by Primark Stores Limited that includes noise abatement measures when delivering at the store to minimise any impact on the amenity of neighbouring properties.

3.17 All communication equipment including audible warning measures and entertainment systems within vehicle cabs will be switched off and out of use when the vehicle is traversing Hanway Street, either on entry to or exit from the loading bay. In addition to the above measures all engines will be switched off once the delivery vehicle is positioned inside the loading bay and the entrance doors to Hanway Street will be closed.

4. ADMINISTRATION, MONITORING & REVIEW OF SMP

Yard Supervisor

4.1 The management of the loading bay off Hanway Street will be the sole responsibility of the yard supervisor. Contact details for the yard supervisor will be provided to the City of Westminster and London Borough of Camden. Both authorities will be advised should there be any change to the contact details for the yard supervisor.

4.2 The yard supervisor is responsible for the implementation, communication, monitoring and management of the Servicing Management Plan working directly with the senior managers, building management and the Logistics Manager at the Distribution Centre. Specifically the responsibilities of the Yard Supervisor are as follows:

- The creation of safe systems of work and risk assessments relating to activities within the loading bay area;
- To ensure that the details contained within the Servicing Management Plan are communicated effectively at all levels;
- To oversee the requisite training to be provided to all yard personnel and drivers including the briefing and supply of Health & Safety and Emergency Evacuation procedures;
- To act as the point of contact for external organisations such as the City of Westminster and London Borough of Camden on matters related to the Servicing Management Plan;
- To monitor the effectiveness of the Servicing Management Plan and provide updates where required to take account of any changes to the operation, timing of deliveries;

Administration

4.3 Administration of the Servicing Management Plan will involve the maintenance of necessary systems, data and consultation. This will be held solely and maintained by the Yard Supervisor. Specifically in relation to the operation of the SMP, the Yard Supervisor will maintain:

- A record of the number and timing of delivery movements over a daily basis;
- Correspondence File - feedback from staff, neighbours and the local authorities plus details of any changes requested by the store or Head Office in respect of the SMP;
- Review Reports - copies of historic SMP's will be retained for reference purposes and for analysis of the longer term effectiveness of the Plan;
- 'Incidents File' - a log of any recorded incidents that have affected the operation of the SMP.

4.4 The records, correspondence and incident files will be made freely available to the Local Planning Authority for inspection and review very three months.

Monitoring & Review

4.5 The Servicing Management Plan would be continually monitored and updated regularly in consultation with the City of Westminster and London Borough of Camden to ensure that its content and procedures are kept up to date. The Local Planning Authorities reserve the right to request updates to the Servicing Management Plan should it consider necessary to do so.

4.6 Monitoring and review would be the responsibility of the Yard Supervisor in conjunction with building management for reporting purposes.

4.7 As part of the monitoring and review process the Yard Supervisor will record feedback from yard personnel and drivers. The Yard Supervisor will also make his / her own observations on the out-working of the SMP. This feedback together with any changes made or corrective actions taken in respect of the delivery operations at the store will be fed back into the Servicing Management Plan.

4.8 The production of an updated Servicing Management Plan will only be triggered by any significant changes made to the measures and procedures in place. Otherwise the Yard Supervisor in conjunction with building management will inform the Local Planning Authorities by correspondence that no alterations have been made to the current SMP on a six monthly basis.

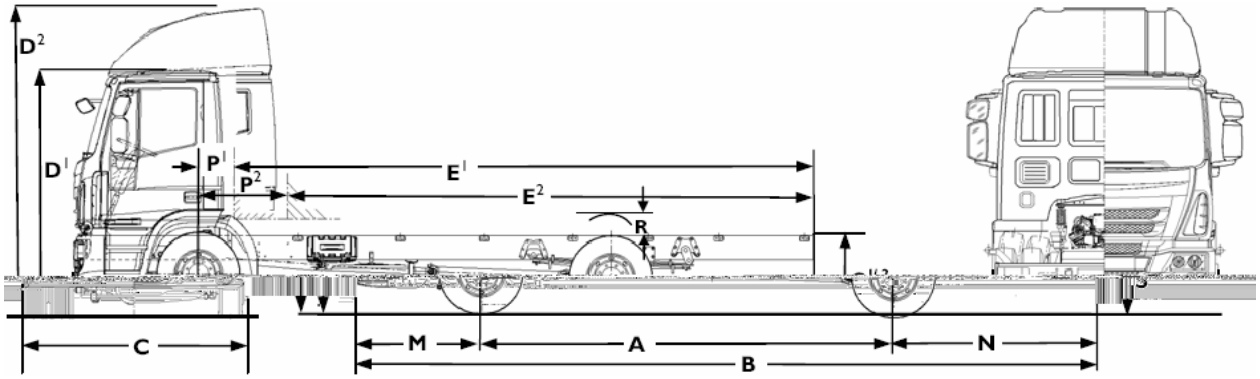
4.9 The Yard Supervisor will also provide documentary evidence upon request that the delivery operations at the store are in compliance with the terms of the Servicing Management Plan.

ANNEX A

EUROCARGO ML180E25S 4x2 Rigid
ML180E25/P 4x2 Rigid - Rear Air

EEV

SPECIFICATION SHEET



Plated/Design Weights (Kg)	GVW	GTW	Front Axle	Rear Axle
Plated weights	18000	21500	7100	11500
Design weights	18000	21500*	7500	11500

Kerbweights (Kg)

Weights are for **S** models to standard specification and include water, oils, 5 litres of AdBlue and 20 litres of fuel but exclude driver.
Kerb weights are subject to a manufacturing tolerance of +/-5%.
For **/P** models add 160kg to the rear axle kerb weight
A sleeper cab standard roof adds 100kgs (70/30kgs) to the kerb weight. A high roof sleeper cab adds 160kgs (120/40kgs) to the kerb weight.

Wheelbase	**3690**	**4185**	**4590**	**4815**	**5175**	**5670**	**6210**	**6570**
Front	3240	3320	3330	3355	3380	3440	3475	3495
Rear	1785	1815	1815	1840	1865	1920	1985	2025
Total	5025	5135	5145	5195	5245	5360	5460	5520
MAXIMUM BODY/ PAYLOAD (kg) @ GVW	12975	12865	12855	12805	12755	12640	12540	12480

* A GTW of 32500kgs is permissible provided a 9-speed gearbox and a drawbar pack are specified.
For front axle capacity upgrade – see Order Guide.

Dimensions (mm)

			3690	**4185**	**4590**	**4815**	**5175**	**5670**	**6210**	**6570**
A	Wheelbase									
B	Overall length (over bumpers)		6185	6860	7602	8030	8660	9267	9807	10707
C	Cab width (over wings)		2470	2470	2470	2470	2470	2470	2470	2470
D1	Cab height (unladen) *	std roof	2846	2843	2842	2841	2839	2838	2837	2837
D2		high roof	-	3498	3497	3496	3494	3493	3492	3492
M	Front overhang		1362	1362	1362	1362	1362	1362	1362	1362
N	Rear overhang		1133	1313	1650	1853	2123	2235	2235	2775
R	Wheel bump clearance		240	240	240	240	240	240	240	240
S1	Frame height at centre line of axle	S	1068	1068	1067	1067	1066	1065	1064	1063
		/P	980	980	980	980	980	979	979	979
		/FP	-	-	-	-	-	-	-	-
S2	Frame height at end of frame	S	1081	1082	1085	1086	1087	1085	1082	1084
		/P	968	968	966	965	966	965	966	965
		/FP	-	-	-	-	-	-	-	-
P1	C/line f/axle to back of cab equip	day	385	385	385	385	385	385	385	385
P2		sleeper	-	965	965	965	965	965	965	965
E1	Useable frame length	day	4438	5113	5855	6283	6913	7520	8060	8960
E2		sleeper	-	4533	5275	5703	6333	6940	7480	8380
	Turning circle (wall to wall)		14390	15900	17130	17810	18910	20420	22110	23210

* Reduce by 50mm for air suspension models

Tyres & Wheels	Tyre Size		Tread		Wheels (10 stud)	
	Front	**Rear**	**Front**	**Rear**	**Front**	**Rear**
Standard	295/80R22.5	295/80R22.5	On Road	Traction	8.25 x 22.5	8.25 x 22.5
Optional	315/60R22.5	315/60R22.5	On Road	Traction	9.00 x 22.5	9.00 x 22.5
Optional	12R22.5	12R22.5	On/Off Road	On/Off Road	8.25 x 22.5	8.25 x 22.5
Optional	315/70R22.5	315/70R22.5	On Road	Traction	9.00 x 22.5	9.00 x 22.5
Optional	305/70R22.5	305/70R22.5	On Road	Traction	8.25 x 22.5	8.25 x 22.5
Optional	315/80R22.5	315/80R22.5	On Road	Traction	9.00 x 22.5	9.00 x 22.5

PD/RB/180E25Truck/09/09

Engine	Iveco *Tector*
Cylinders	6
Bore (mm)	102
Stroke (mm)	120
Capacity (litres)	5.88
Power (PS/kW)	251/185
@ rpm	2700
Torque (Nm/lbft)	850/627
@ rpm	1250 - 2100
Rating	EEV (OBD2)
Governor	All speed
Cooling Fan	Viscostatic
Fuel System	Bosch common rail
Exhaust	SCR catalyst system
Speed Limiter	Driver programmable to 90kph
Engine Immobiliser	Standard
Cruise control	Standard

Gearboxes	ZF	ZF	ZF	Allison
Type	**6AS800 Automated**	6S800 Manual	9S-75TO Manual	S3000 Automatic
1st	**6.58**	6.58	9.56	3.49
2nd	**3.60**	3.60	6.47	1.86
3rd	**2.12**	2.12	4.72	1.41
4th	**1.39**	1.39	3.50	1.00
5th	**1.00**	1.00	2.54	0.75
6th	**0.78**	0.78	1.85	
7th			1.35	
8th			1.00	
9th			0.73	
Rev	**6.06**	6.06	8.53	5.03

Performance (std tyres)				
with ZF 6AS800 & 6S800 gearbox				
Axle ratios available	**4.89**	5.63	6.14	6.43
Geared speed (mph)	**84**	73	67	64
Gradeability % @ GVW	**29**	33	37	39
Gradeability % @ 21500kg GTW	**24**	27	30	32
with ZF 9S-75TO gearbox				
Axle ratios available	**5.63**	4.89	6.14	6.43
Geared speed (mph)	**78**	90	72	68
Gradeability % @ GVW	**40+**	40+	40+	40+
Gradeability % @ 21500kg GTW	**40+**	35	40+	40+
Gradeability % @ 32500kg GTW	**26**	23	29	30
with Allison S3000 gearbox				
Axle ratios available	**5.63**	6.14	6.43	
Geared speed (mph)	**76**	70	67	
Gradeability % @ GVW	**40+**	40+	40+	
Gradeability % @ 21500kg GTW	**35**	39	40+	

Clutch

Type	Single plate, diaphragm spring, push type with midi servo
	Asbestos free
	395 mm

Brakes

Type	EBL - Vertically split full air
Front	432mm ventilated disc
Rear	432mm ventilated disc
ABS system	Standard Knorr Bremse ABS6
Parking	Spring parking brake
Exhaust brake	Standard (multi function)
Compressor	225cc *
Air drier	Standard

Chassis

Type: Ladder construction with pressed steel side members and riveted and bolted cross members.

Wheelbases	Depth	Width	Thickness
3690mm	274.5mm	80mm	6mm
4185-6570mm	277.9mm	80mm	7.7mm

Front underrun: Standard
Rear underrun: Optional

Fuel Tank

Type: 280 litres, aluminium
Locking fuel cap

Adblue Tank

Type: 25 litres, plastic with locking cap

Electrics

Type	24v negative earth return
Alternator	28v, 70A *
Starter	24v, 4.0kW
Battery	2 x 12v, 143Ah
	All circuits protected by fuses
	CAN line data bus system

Suspension

Front (S & /P models)	Parabolic leaf
Rear (S models)	Parabolic leaf
Rear (/P models)	Pneumatic (ECAS) Raise/Lower +115/-75
Anti-roll bar	Front and rear
Shock Absorbers	Front and rear

Steering

Type: Power assisted

Axles

Front	Iveco 5871/5 I-beam
Rear	Meritor MS13-165 Hypoid
Diff Lock	Standard
Standard ratios	ZF 6S800 & 6AS800 – 4.89
	ZF 9S-75TO - 5.63
	Allison S3000 - 5.63

* When the Allison S3000 gearbox is specified, a 90A alternator and 360cc compressor are fitted as standard

Cab Equipment

Interior

Day Cab: Forward control MLC day cab. Air suspension driver's seat with integral head restraint and seatbelt. Dual fixed passenger seat with 50/50 split back rest with seatbelts. Overhead lockers with doors. Windowless rear cab wall with document storage. Large storage shelf on passenger side. 4-speed fan air flow up to 500m3/hr. 10kw output. All gauges monitored using international symbols. Automatic electronic 2-man digital 24hr tachograph. Speedometer with dual scale instrumentation. Left and right hand entry assist handles. Fully adjustable steering column. Dash mounted gear selection switches for automated gearbox. Column mounted control stalks. Overhead console for radio/CB. Courtesy and map reading lights. Engine immobiliser. Handbrake warning buzzer. Drivers seatbelt warning buzzer.

Sleeper Cab: Forward control MLL sleeper cab. Driver's seat as Day Cab. Single two way adjustable passenger seat with integral head restraint and seatbelt.. Opening roof vent,. Single low level bunk, protection net and curtains to enclose entire cab area. Bed module incorporating an alarm and controlling major electrical functions (lighting, windows etc)

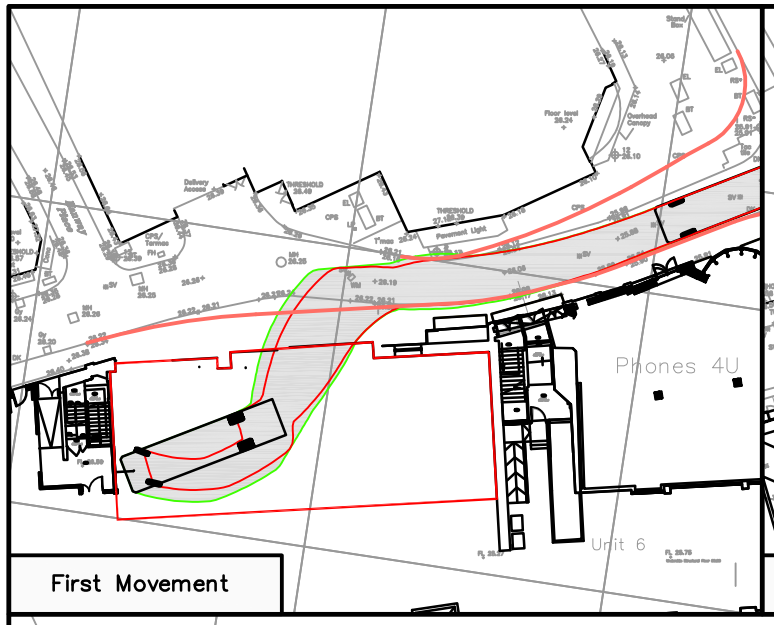
High Roof Sleeper Cab Option: As sleeper cab plus increased interior height, extra storage space in enclosed and open lockers and rear shelf. Electric roof hatch.

Exterior

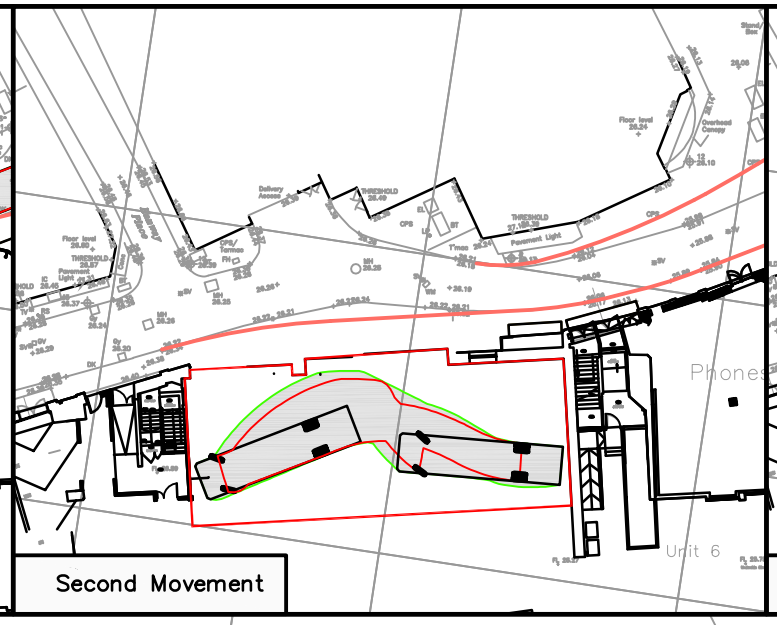
Day Cab: Suspension – helical springs and dampers. Hydraulic tilt to 60 deg. Pressed steel construction with injection moulded vulnerable parts. Electric door windows and laminated screen. Rear view mirrors to EEC 2003/97 and 2005/27, including 2 wide angle, 1 kerb view and 1 front view mirror.

Sleeper Cab:
Exterior as day cab, plus twin 130 litre stowage lockers with both internal and external access and electrically operated release switches incorporated into the seat bases.

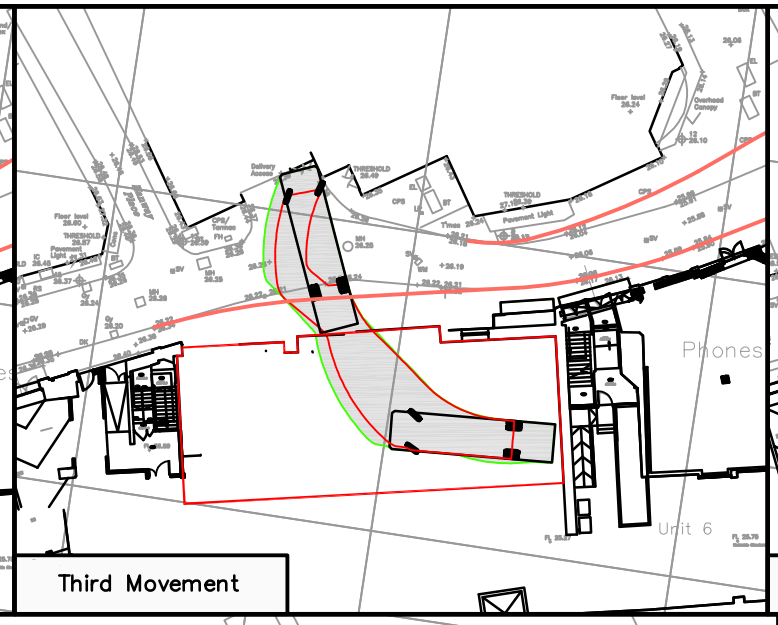
ANNEX B



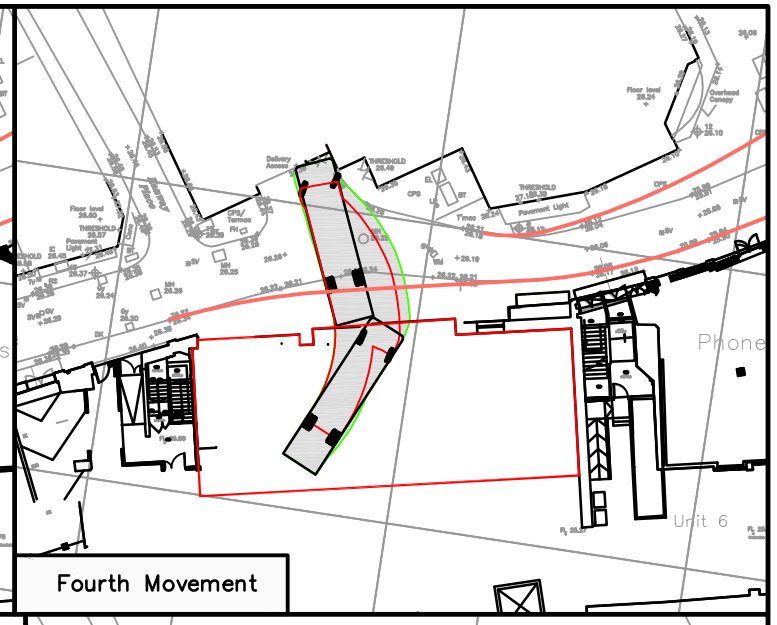
First Movement



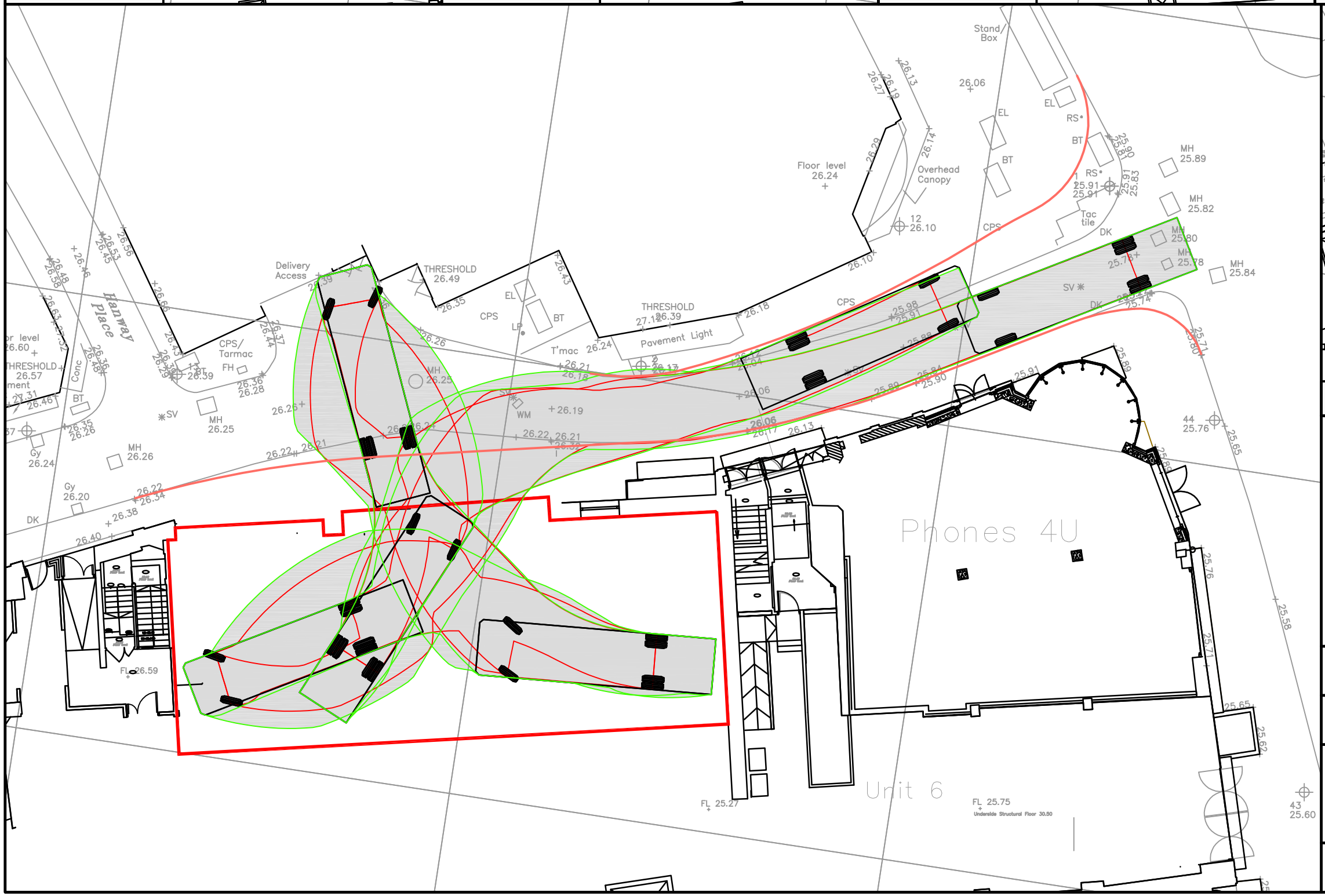
Second Movement

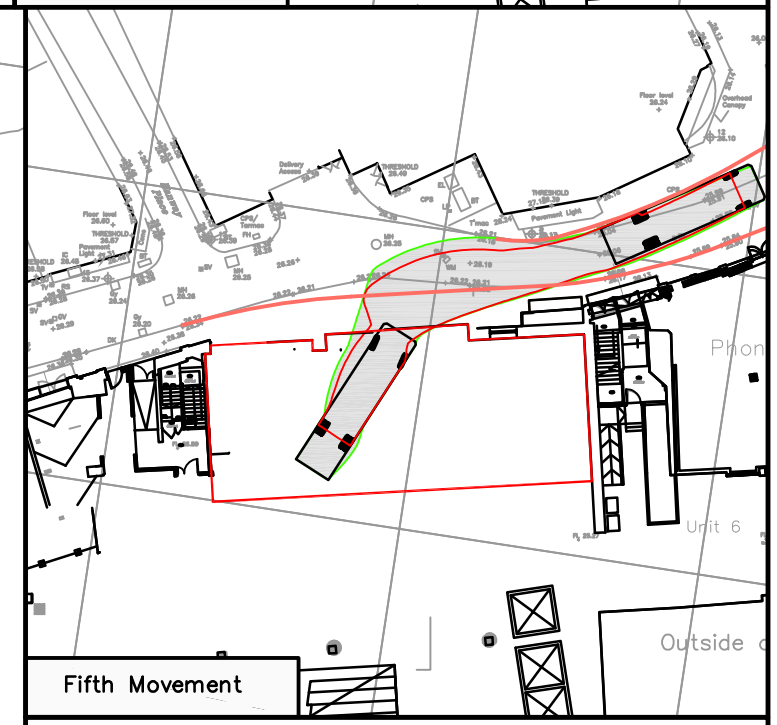


Third Movement



Fourth Movement





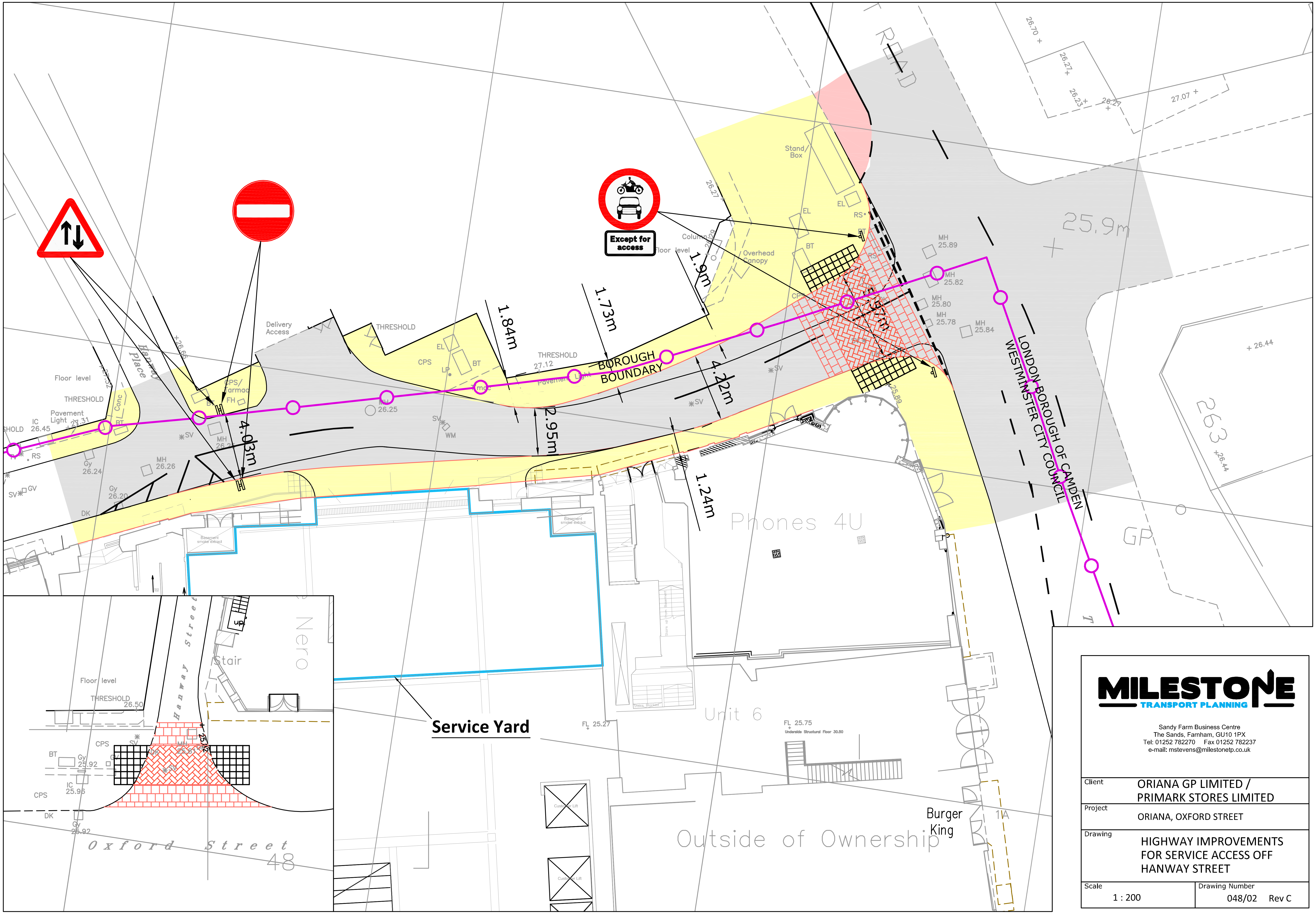
Fifth Movement

MILESTONE
TRANSPORT PLANNING

Sandy Farm Business Centre
The Sands, Farnham, GU10 1PX
Tel: 01252 782270 Fax 01252 782237
e-mail: mstevens@milestonetp.co.uk

Client	ORIANA GP LIMITED / PRIMARK STORES LIMITED
Project	ORIANA, OXFORD STREET
Drawing	PROPOSED DELIVERY / SERVICING FROM HANWAY STREET
Scale	1 : 200
Drawing Number	048/SMP/01

ANNEX C



MILESTONE
TRANSPORT PLANNING
Sandy Farm Business Centre
The Sands, Farnham, GU10 1PX
Tel: 01252 782270 Fax 01252 782237
e-mail: mstevens@milestonetp.co.uk

Client	ORIANA GP LIMITED / PRIMARK STORES LIMITED
Project	ORIANA, OXFORD STREET
Drawing	HIGHWAY IMPROVEMENTS FOR SERVICE ACCESS OFF HANWAY STREET
Scale	1 : 200
Drawing Number	048/02 Rev C