

## Chapter 9

### Road events

9.1. The Olympic Games and Paralympic Games will feature road-based competition and non-competition events. Competition road events will be held on public roads within London and adjacent counties, with some non-competition events, notably the Torch Relay, also using roads outside the capital. It will be necessary to close some parts of the public highway and impose restrictions on other parts for the build-up to, and the duration of, road events.

9.2. For the Torch Relay, the local authorities and boroughs hosting the road events will arrange for section road closures and management of the control of traffic (in conjunction with the relevant highways authorities). A summary of the road events is given in Figure 9.1.

9.3. For sports road events, LOCOG will coordinate the nominated agencies to arrange the necessary road closures and to coordinate a plan to manage traffic movements in and around these closures. Figures 9.2 to 9.6 provide more information on the routes of the road events.

#### Competition events

9.4. Thirteen road events will take place during the Games. The Olympic Games include the Marathon, the Cycling Road Race and Time Trial, the Race Walk and elements of the Triathlon. The Paralympic Games road events include the Marathon and the Cycling Road Race.

9.5. Olympic road events and their start and finish locations are included in the competition schedules, which are provided in chapter 2. For each road event, there will be a number of road closures to facilitate the safe competition of athletes and to avoid vehicle–spectator conflict in the areas adjacent to the race routes. As each of the road events differ in duration and extent, so will the amount and extent of required road closures. To ensure safety it is likely that the road will be closed up to two hours before the race starts, and open again as soon as is safe to do so after completion. Figure 9.1 provides an estimated duration of the events.

Figure 9.1 Road event calendar

Road event	Location	Date	Start	Finish approx
<b>Olympic Games</b>				
Cycling – Road Race (Men)	The Mall	28 July	10.00	16.15
Cycling – Road Race (Women)	The Mall	29 July	12.00	16.15
Cycling – Time Trial (Women & Men)	Hampton Court Palace	1 August	10.00	16.15
Triathlon (Women)	Hyde Park	4 August	09.00	11.40
Triathlon (Men)	Hyde Park	7 August	11.30	14.00
Athletics – Race Walk 20km (Men)	The Mall	4 August	17.00	18.30
Athletics – Race Walk 50km (Men)	The Mall	11 August	09.00	13.20
Athletics – Race Walk 20km (Women)	The Mall	11 August	17.00	18.45
Marathon (Men)	London (various)	12 August	11.00	13.40
Marathon (Women)	London (various)	5 August	11.00	14.00
<b>Paralympic Games</b>				
Road Cycling	Brands Hatch	5 September	09.00	18.00
Road Cycling	Brands Hatch	6 September	09.00	18.00
Road Cycling	Brands Hatch	7 September	09.00	18.00
Road Cycling	Brands Hatch	8 September	09.00	18.00
Marathon (Men & Women)	London (various)	9 September	09.00	12.00

#### Torch Relay

9.6. The Olympic Flame for the London 2012 Olympic Torch Relay will arrive in the UK on Friday 18 May 2012. The journey around the UK will begin on Saturday 19 May 2012 and will see the Flame travel across the UK for 70 days, spending a minimum of four days each in Scotland, Wales and Northern Ireland and a minimum of three days in every region of England, the last seven of which will be spent in London before arriving at the Opening Ceremony on Friday 27 July 2012.

9.7. The Relay operates on a rolling road closure premise, unless detailed otherwise in traffic management plans developed by each local authority/borough (in conjunction with the relevant highways authorities). Each

local authority/borough that the Relay passes through will enter into a formal services agreement with LOCOG, which outlines that it will be their responsibility to develop and implement traffic management plans.

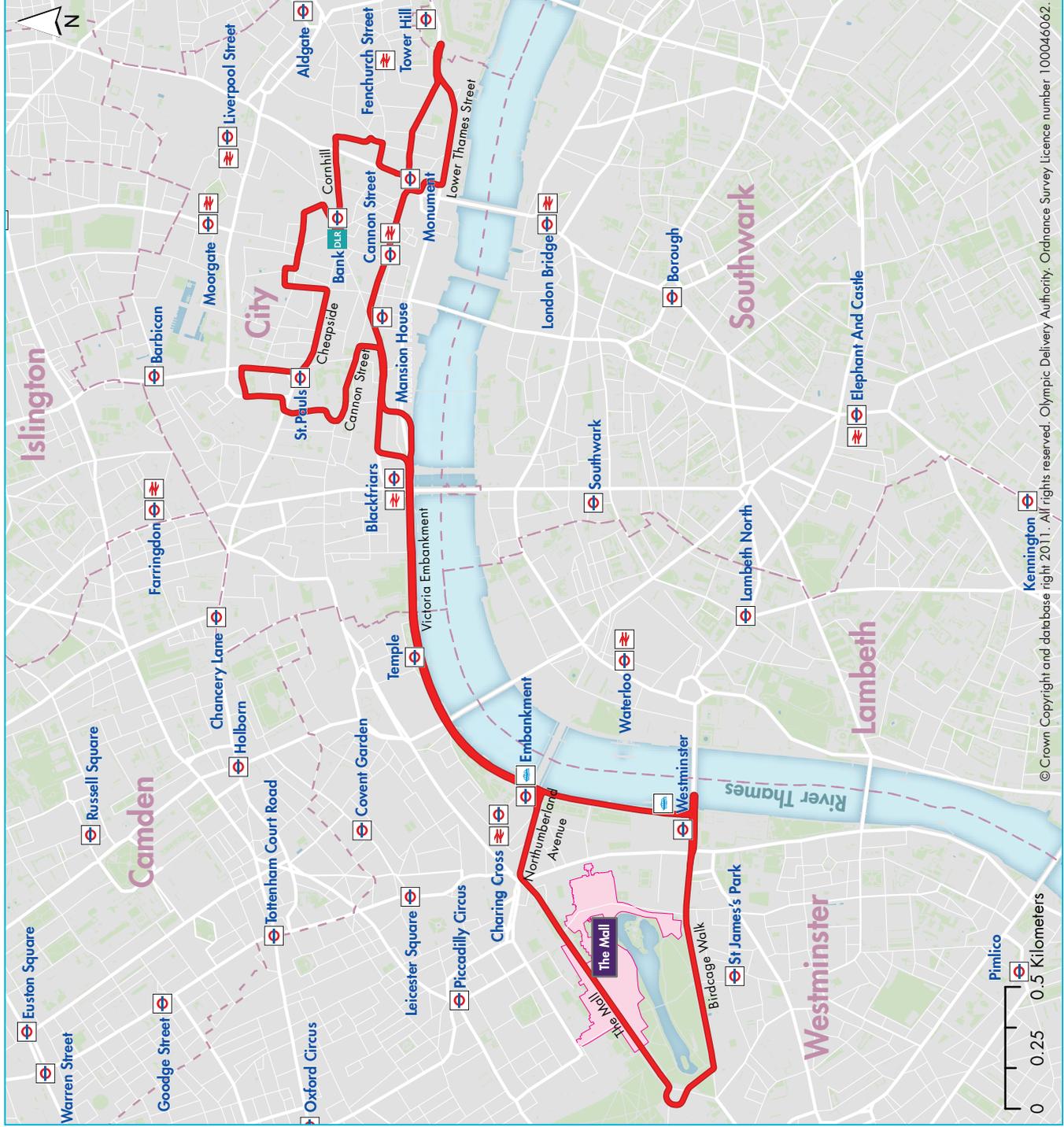
9.8. A Torch Relay Advisory Group (TRAG) has been established in each nation and region. The membership consists of various organisations and includes representatives from Government, sports, police, education, tourism, transport and culture, among others. This group provides advice to LOCOG on the Relay within their specific nation or region. Within London, a London Advisory Group (LAG) has been established, which is co-chaired by the Greater London Authority and LOCOG, and has a similar membership to that of the TRAGs but further includes representatives from all emergency services and representatives from Transport for London. The LAG is the key interface in dealing with operational issues for the London leg of the Relay.

**Figure 9.2**  
**Athletics - Marathon route**



The key to sports pictograms can be found in Appendix E

-  Event area
-  Route
-  Borough boundary
-  National Rail station
-  London Underground station
-  DLR



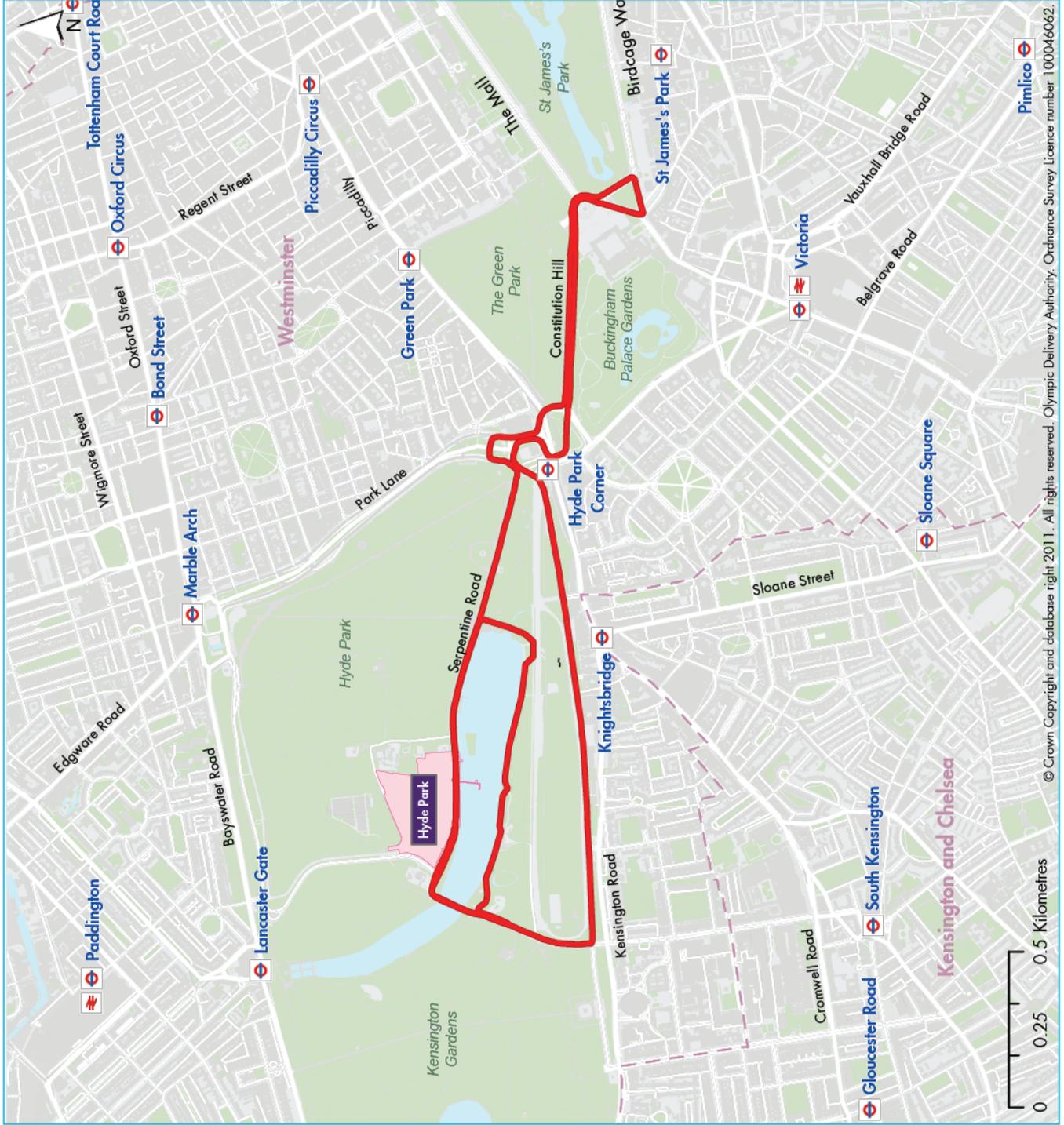
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Figure 9.3  
Triathlon



The key to sports pictograms can be found in Appendix E

-  Event area
-  Route
-  Borough boundary
-  National Rail station
-  London Underground station

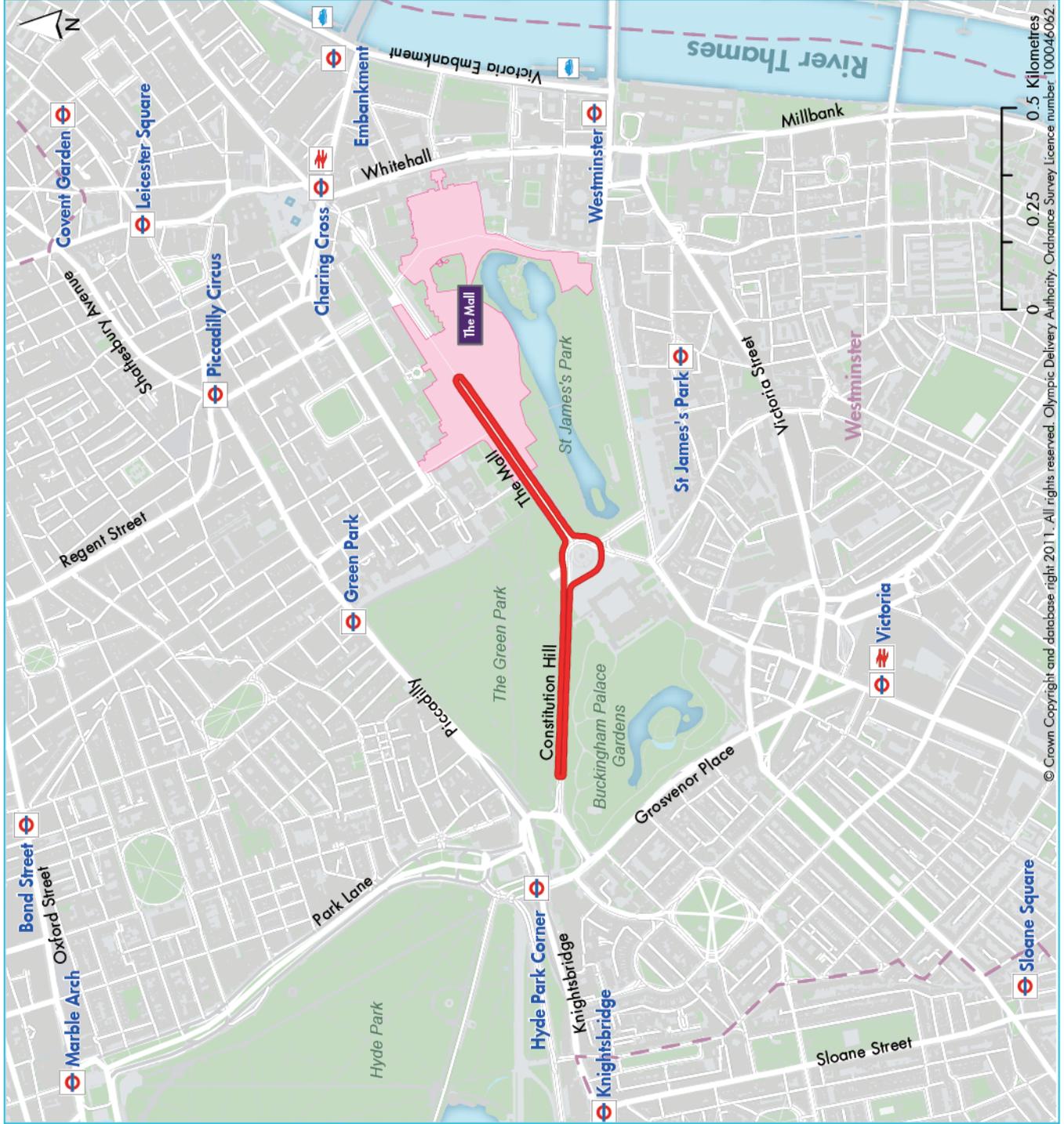


**Figure 9.4**  
**Athletics - Race walk route**



The key to sports pictograms can be found in Appendix E

-  Event area
-  Route
-  Borough boundary
-  National Rail station
-  London Underground station



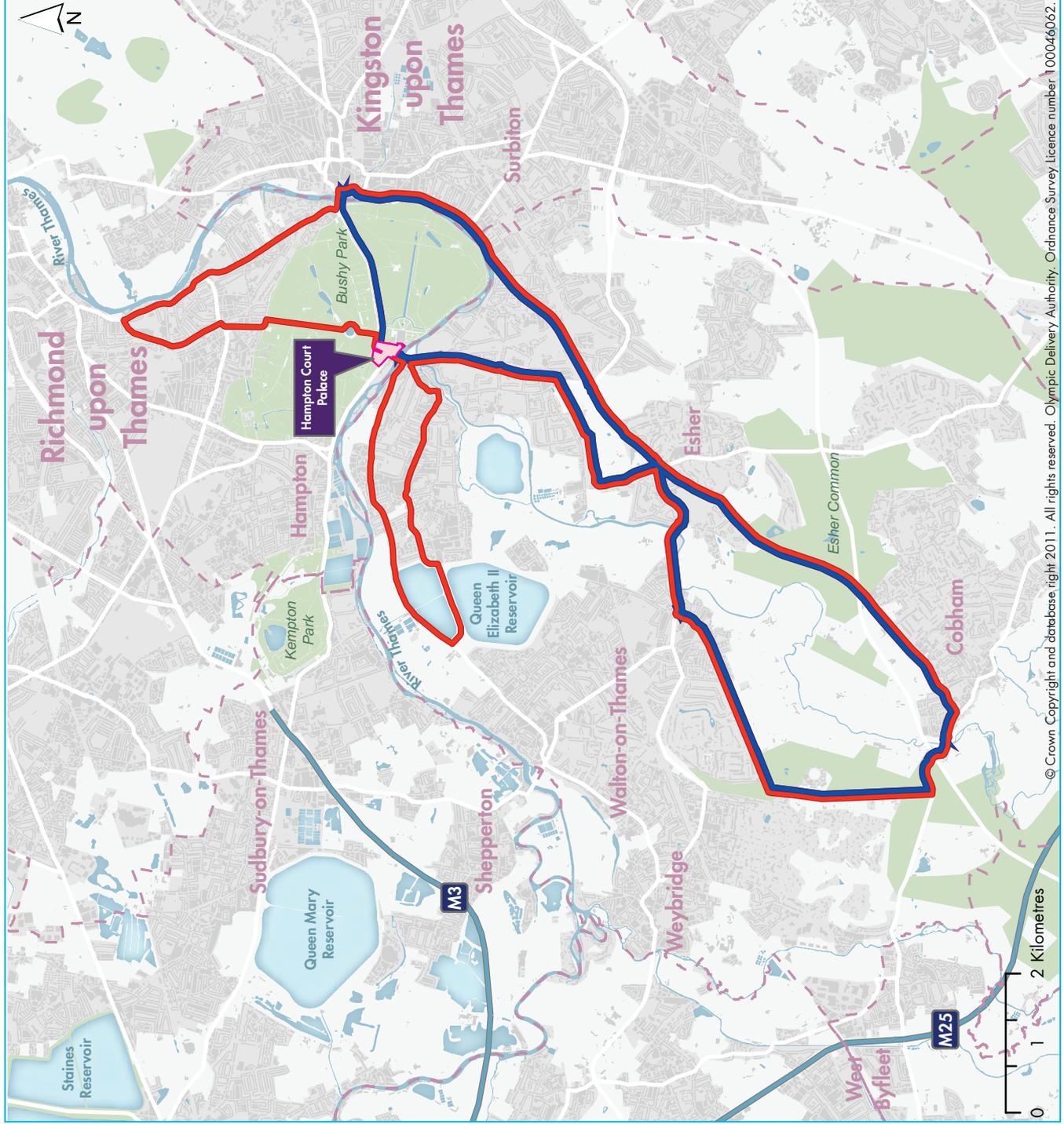
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**Figure 9.5**  
**Cycling - Time Trial route**



The key to sports pictograms can be found in Appendix E

- Event area
- Route - men's race
- Route - women's race
- Borough boundary



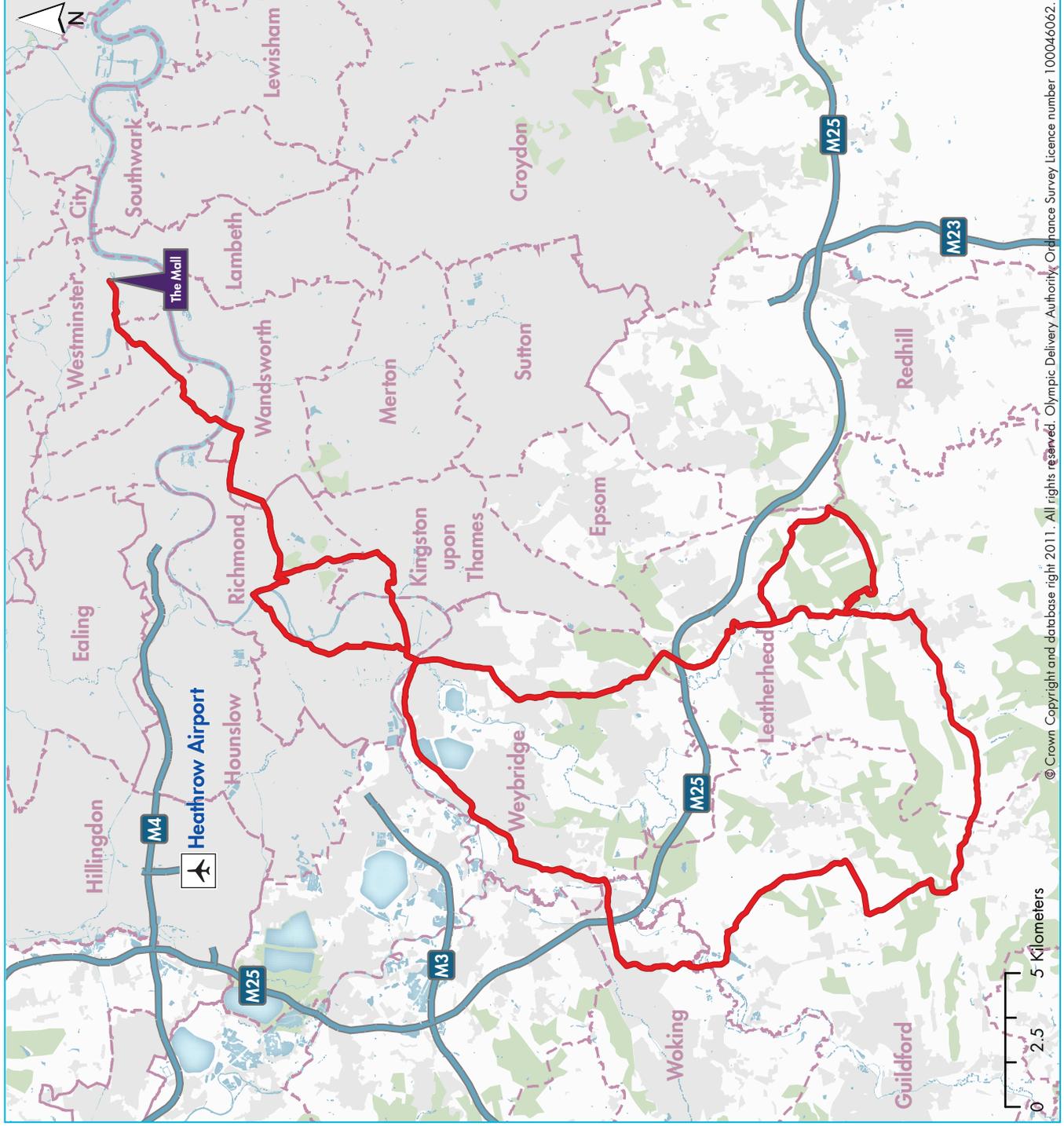
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**Figure 9.6**  
**Cycling - Road Race route**



The key to sports pictograms can be found in Appendix E

-  Route
-  Borough boundary
-  Airport



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## Chapter 10

### Regional Football stadia

10.1 The Football competition for the Olympic Games will be staged at a total of six football stadia in different cities across the UK, including:

- Millennium Stadium, Cardiff;
- City of Coventry Stadium, Coventry;
- Hampden Park, Glasgow;
- Wembley Stadium, London;
- Old Trafford, Manchester; and
- St James' Park, Newcastle.

10.2 Each stadium is likely to host a mix of men's and women's matches for both the group stages and the final stages. In total, each stadium is likely to host between six and 15 matches.

10.3 The transport arrangements for each stadium will be based on the tried-and-tested operating plans that are already successfully implemented for major events held at these venues.

10.4 Once LOCOG's plans for the temporary overlay at each venue have been developed, the existing transport plans for each venue will be reviewed in collaboration with the relevant highway authorities, city transport executives and venue operators to agree any changes that may be required to facilitate the Olympic Games.

10.5 The final stages of the Football competition will be held at Wembley Stadium. A summary of the transport arrangements for Wembley has been given in chapter 8.

10.6 LOCOG will liaise with the relevant authorities in relation to traffic management arrangements for each venue.

10.7 Figure 10.1 shows the location, capacity and schedule for the Football stadia.

Figure 10.1 - Regional Football stadia - location, capacity and schedule

Venue	Hampden Park	Millennium Stadium	Old Trafford	City of Coventry Stadium	St James' Park
<b>Location</b>	Glasgow	Cardiff	Manchester	Coventry	Newcastle
<b>Competition period</b>	Wednesday 25 July Thursday 26 July Saturday 28 July Wednesday 1 August Friday 3 August	Wednesday 25 July Thursday 26 July Saturday 28 July Tuesday 31 July Wednesday 1 August Friday 3 August Saturday 4 August Friday 10 August	Thursday 26 July Sunday 29 July Tuesday 31 July Wednesday 1 August Saturday 4 August Monday 6 August Tuesday 7 August	Wednesday 25 July Thursday 26 July Saturday 28 July Sunday 29 July Tuesday 31 July Wednesday 1 August Friday 3 August Thursday 9 August	Thursday 26 July Sunday 29 July Tuesday 31 July Wednesday 1 August Friday 3 August Saturday 4 August
<b>Venue capacity</b>	52,000	74,500	76,200	32,500	52,400
<b>Rail spectator transport</b>	Mount Florida Station via Glasgow Central	Cardiff Central		Coventry Central Station with bus transfer to the venue	Newcastle Central Station
<b>Metro/Metrolink</b>			Old Trafford, Exchange Quay		St James' Metro Station
<b>Coach spectator transport</b>	Coach parking available to the north of the venue	Coach parking available in Cardiff Bay	Coach parking to north-west of stadium	Coach parking available in car park C	Newcastle coach station
<b>Bus spectator transport</b>	Aikenhead Road and Carmunnock Road	St. Mary Street and St. James Boulevard	Chester Road	Special match day shuttle service from city centre to the venue	James Boulevard and city centre services
<b>Step-free stations with assistance available</b>	Glasgow Central and Mount Florida (step-free from one entrance to platform)	Cardiff Central	Exchange Quay	Coventry Central station with bus transfer	Newcastle Central
<b>All stadia</b>					
<b>Venue transport plan</b>	To develop a robust venue plan for these venues, the London 2012 Venue Transport Team is working in partnership with venue owner/operator, relevant local authorities, emergency services; and local transport operators. Other organisations and stakeholders will be drawn into the process when appropriate. The venue transport plan will be developed in more detail as the Games approach. Each plan will be tested at a test event prior to the Games				

Figure 10.2 Regional Football stadia competition schedule

Zone	Venue	Capacity	July							August												
			Wed 25	Thu 26	Fri 27	Sat 28	Sun 29	Mon 30	Tue 31	Wed 1	Thu 2	Fri 3	Sat 4	Sun 5	Mon 6	Tue 7	Wed 8	Thu 9	Fri 10	Sat 11	Sun 12	
Football stadia	Hampden Park	52,000	17:00-21:45	12:00-16:45		17:00-21:45	17:00-21:45		14:30-16:30													
	Millennium Stadium	74,600	16:00-20:45	19:45-21:45		14:30-19:15			17:00-21:45		17:00-19:00	19:30-21:30							19:45-21:45			
	Old Trafford	75,000		17:00-21:45			12:00-16:45		17:15-19:15		17:00-19:00	12:00-14:00							19:45-21:45			
	St. James' Park	52,000		14:30-19:15			17:00-21:45		14:30-19:15		14:30-16:30	17:00-19:00										
	Wembley Stadium	90,000					17:00-21:45		19:45-21:45		17:00-19:00	14:30-16:30							19:45-22:15			
	City of Coventry Stadium	32,600	17:00-21:45	19:45-21:45		12:00-16:45	14:30-19:15		19:45-21:45		17:00-19:00	19:30-21:30							13:00-15:00			
			Day -2	Day -1	Day 0	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14	Day 15	Day 16	

## Chapter 11

### Ceremonies and cultural events

11.1 A series of Games ceremonies and cultural events will take place in London and around the UK in the period before and during the Olympic and Paralympic Games.

11.2 The overall responsibility for the planning and delivery of ceremonies lies with LOCOG. Cultural events are planned and delivered by the GLA (through its City Operations team – see 11.4 and 11.5) and other bodies such as Borough Councils. LOCOG is responsible for delivering transport arrangements for the Games Family to the ceremonies. The ODA's transport obligations and objectives during the Games are clearly defined in chapter 3 of this document.

#### Ceremonies

11.3 The Opening and Closing Ceremonies of the London 2012 Olympic and Paralympic Games will take place on the following dates:

- Olympic Games Opening Ceremony: 27 July
- Olympic Games Closing Ceremony: 12 August
- Paralympic Games Opening Ceremony: 29 August
- Paralympic Games Closing Ceremony: 9 September

The above ceremonies will be held at the Olympic Stadium in the Olympic Park.

#### Cultural programme

11.4 In addition to these ceremonies, a cultural programme is being developed by City Operations and other promoters, which is likely to include a range of concerts, outdoor screenings, exhibitions and carnivals. Most of the events will be open to public participation and viewing and they will be based around Olympic Games and Paralympic Games themes.

11.5 The term 'Live Site' is used to refer to a public location where facilities (such as large screens) will be put in place to enable people to watch sporting events during the Games live from iconic festival areas around the UK. The sites will also provide stage entertainment events and provide a venue for community and cultural programmes.

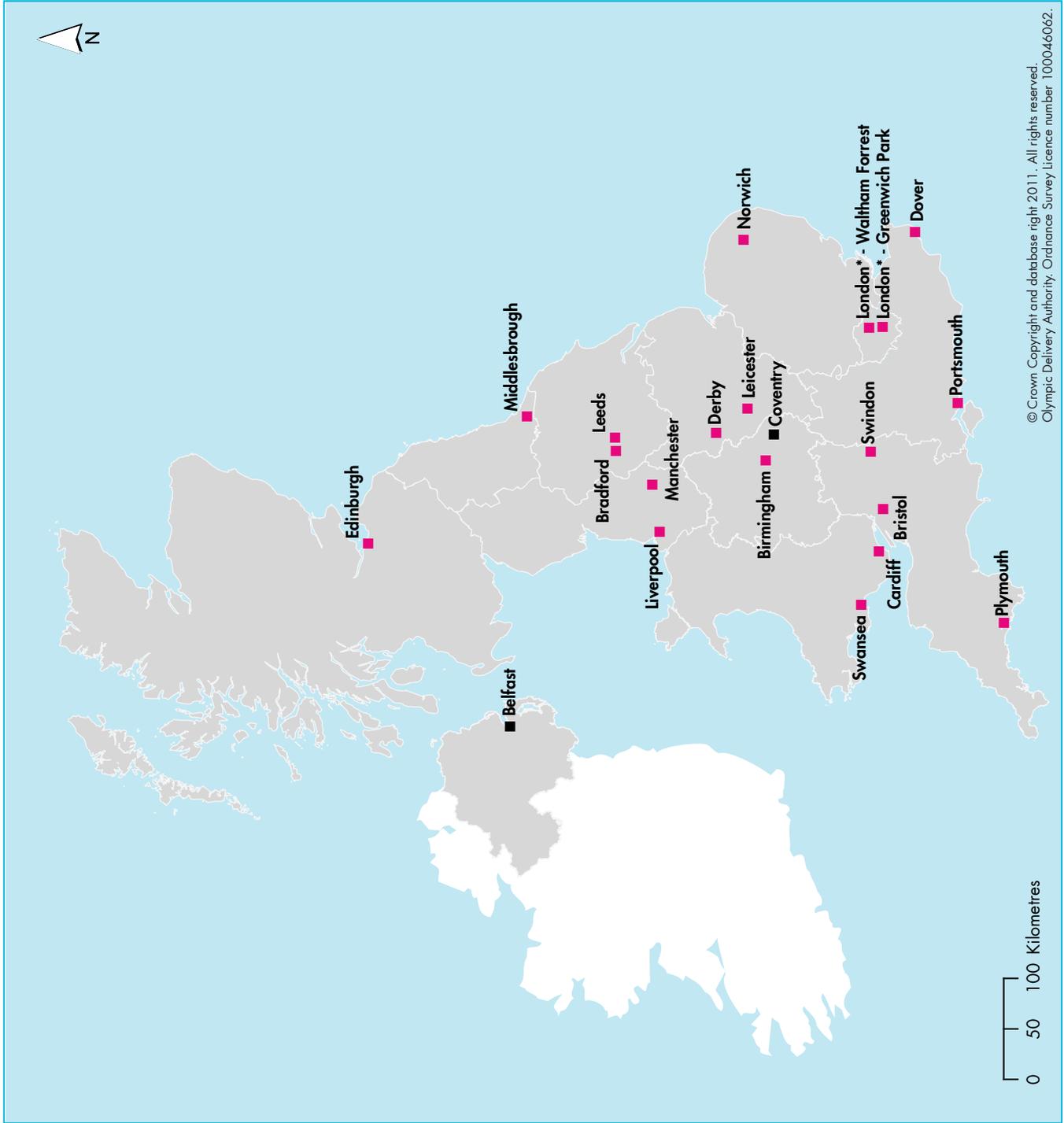
11.6 The GLA will be organising Live Sites during the Olympic Games at Hyde Park, Victoria Park and Potters Fields. During the Paralympic Games, Live Sites will be located at Trafalgar Square and Potters Fields. These will be free, but ticketed. Current assumptions are that larger sites will have a maximum capacity of up to 50,000 spectators (Hyde Park) and 40,000 (Victoria Park) while Trafalgar Square will accommodate 10,000 and Potters Fields 4,500. There will also be Borough Live Sites at Walthamstow and Greenwich.

11.7 Transport requirements for these locations will be coordinated with other workstreams such as Movement Management Areas, wayfinding and signage. In addition to London venues, there will be a series of events and Live Sites across the UK. The nationwide events are being coordinated in the UK calendar of events that is being managed by LOCOG; however, the relevant local authority will hold delivery and operational responsibility.

The London 2012 Live Sites network is shown in Figure 11.1 below.

**Figure 1.1.1**  
**London 2012 Live Sites Network**

■ Current  
■ Planned



\* In addition the GLA are organising Live Site venues in London, as described in 1.1.5

11.8 In addition to these Live Sites, GLA City Operations will be delivering the following complementary programmes of work, all of which will have some impact on transport demand or the provision of transport information to visitors:

- Look of London – This will ‘dress’ key areas of London in the run-up to and during the Olympic and Paralympic Games, including providing ‘spectaculars’ that showcase the city and its strengths.
- Welcome to London – This will ensure a unified and consistent approach to the visitor welcome through the coordination of existing visitor services and resources during the Games, and the delivery of the London Ambassadors volunteer scheme.
- City celebrations – This will deliver celebration events and ceremonies that complement the Games ceremonies and take them into the city and other parts of London.
- Hospitality brokerage – This will provide a matching service to meet the hospitality needs of key Olympic and Paralympic client groups by linking them to the London tourism and events industry, and helping them secure the venues and hospitality services they require.
- Protocol and unaccredited dignitaries – This will provide assistance to dignitaries not accredited by LOCOG.

11.9 The focal point for the large-scale events associated with the cultural programme is likely to be in central London. However, it can be expected that most of London’s Host Boroughs will hold Olympic and Paralympic events. Other potential venues in central London include Hyde Park, Trafalgar Square, Covent Garden and riverside promenade sites.

11.10 There will be many other cultural events in London, such as those organised by communities and arts organisations, but these are expected to be smaller in scale and are likely to attract people who have travelled to London for other purposes or who live locally.

11.11 In line with the transport strategy for the Games, attendees will be encouraged to use public transport, or walk or cycle to attend these events.

11.12 The ODA is working with LOCOG, City Operations, local authorities and TfL to ensure that the ceremonies and cultural events take place in locations and at times that will minimise the impact on nearby competition venues, the ORN and other transport services supporting the Games.

11.13 London Boroughs and their partners, such as the emergency services, through Augmented Safety Advisory Groups (or equivalent), will determine the safety and operating capacity of public services to cope with the proposed events before licensing them. The London Events Coordination Calendar (LECC) is an important tool for informing this process and contains information and data on planned events within London.

# Chapter 12

## Freight transport

### Introduction

12.1 Staging the Olympic Games and Paralympic Games is a challenge of a unique scale and complexity, often described as a country's largest peacetime logistical operation. The initial logistics undertaking for London 2012 has been the massive effort supporting the construction of venues and the associated transport infrastructure. As the construction activity nears completion, this task is diminishing and the focus has shifted to the wide-ranging logistics activity needed to support the period of Games competition, service the venues and to keep London and the rest of the UK working.

12.2 The sheer scale of the Games and its effect on transport will also have an impact on wider logistics activity, most notably the ability for goods and services to be delivered by road to businesses. As part of the Games commitment to keep London and the rest of the UK moving, the impact of the Games needs to be managed to ensure that businesses can operate effectively and, in turn, sustain the life of the capital and other parts of the country.

### Roles and responsibilities

12.3 LOCOG Logistics is responsible for the logistics organisation and planning for the London 2012 Games. This includes:

- developing a comprehensive plan for the distribution of the materials required to stage the Games;
- managing the Games Family Freight and Customs clearance, supporting the NOCs and NPCs, IOC and IPC with the movement of their freight and unaccompanied baggage into the country;
- operating a comprehensive warehousing and storage network for Games materials including sports equipment, technology equipment, furniture, fixtures, materials for the ceremonies, promotional materials, the 'look' of the Games and consumables;
- planning and operating the Master Delivery Schedule for distribution to all competition and non-competition venues, managing, controlling and scheduling all deliveries including consolidation;
- managing the in-venue logistics operations at all competition and non-competition venues; and
- the removal of waste from venues during the Games.

12.4 The strategy for delivering the logistics requirements has been outsourced to a third-party contractor, UPS, which will carry out its duties as the Lead Logistics Supporter. The Lead Logistics Supporter will have responsibility for assisting with the development of a logistics operating plan and for providing the infrastructure and resources for the operational execution of the logistics plan. The logistics plan will be produced in accordance with UK, London and local freight and distribution policy.

12.5 LOCOG and UPS will be seeking to operate a sustainable physical supply chain taking into consideration the use of packaging and transit materials, carbon-efficient management of the warehouses, use of alternative-fuel road vehicles, as well as use of waterborne deliveries where practical.

12.6 TfL is responsible for helping businesses and the road freight industry to plan for and manage the impact of the Games within London, while the ODA does the same for the rest of the UK. This includes:

- raising the awareness of businesses and the road freight industry of the potential impacts of the Games;
- identifying those areas where the greatest impact will be felt and ensuring that those likely to be affected are informed;
- identifying and promoting the types of measures that can be used to manage and mitigate the impacts of the Games;
- working with local authorities to help introduce measures during the Games and integrate them with existing traffic management measures;
- making available the information needed by businesses and the road freight industry to plan and manage effectively their response to the Games;
- working with businesses and the road freight industry to ensure a sufficient level of change is in place to enable them to function effectively during the Games; and
- undertaking monitoring and obtaining feedback from industry to ensure that the necessary changes are being made and that businesses will continue to function during the Games.

## The impact of the Games

12.7 Although the majority of spectators will travel to the Games by public transport, many roads in London, and near venues outside London, will be busier than usual at certain times. Additional demand for goods and services also needs to use the road network to maintain the high levels of service required when London is in the global media spotlight. Parking controls will be in place around each venue and some roads will be temporarily closed to traffic when they are used for road events, such as the Marathons, Road Cycling competitions and the Race Walks. There will also be non-competition road events, such as the Torch Relay, which will use roads across the UK.

12.8 The ORN and PRN will link all the competition and key non-competition venues for the Games, but will only be in use when needed as determined by demand, location and the competition schedule. Less than 2.6 per cent of London's roads will be used by the ORN and less than 1 per cent of London's roads will have temporary Games Lanes. However, ORN and PRN parking restrictions and alterations to junctions will significantly reduce the number of hours that kerbside access is permitted and have an impact on normal delivery and collection operations and routes. Traffic displaced when the ORN and PRN is in operation may also make other parts of the road network more congested.

12.9 In addition to sporting events, Live Sites are expected to attract large numbers of people, up to 50,000 at some, and are likely to have an impact on the adjacent roads. A large number of cultural events are also planned in the run-up to and during the Games in London and around the UK. Details of these are not yet known, but it is expected that some of them will have an impact on local traffic. In those areas in London where there are likely to be particularly significant conflicts between pedestrians and vehicles, Movement Management Areas (MMAs) will be set up with additional traffic management measures to ensure pedestrian safety. As with the ORN, any traffic measures associated with MMAs will be subject to statutory consultation.

### Raising the awareness of businesses

12.10 TfL, supported by the ODA, is working with a wide range of business organisations, such as the Freight Transport Association, Road Haulage Association, the Federation of Small Businesses, Chambers of Commerce, Freight Quality Partnerships and Business Improvement Districts, to ensure that knowledge about the impact of the Games is distributed to the widest audience possible. In addition, information about managing road freight deliveries is included as part of the wider guidance provided to businesses as part of the Travel Advice for Business programme. This information, which will be updated over the coming months, is hosted in the Business Network section of the London 2012 website ([london2012.com/traveladviceforbusiness](http://london2012.com/traveladviceforbusiness)).

12.11 Specialist working groups have also been formed with representatives from the trade associations, representative businesses and local authorities. These will address issues specific to individual business sectors, such as brewing/hospitality, couriers and construction, as well as locations outside London, such as Weymouth and Portland, which face their own particular challenges. These working groups will ensure that the views of stakeholders are incorporated in London 2012 plans, as well as providing valuable feedback on the industry's response and the effectiveness of their plans.

12.12 Areas where the Games will have the very highest impact are being specifically targeted, with additional information being provided regarding the local effects. This includes details of the specific measures being planned for the ORN and PRN.

### Management and mitigation measures

12.13 Early engagement between customers and their suppliers is key to the success of measures to reduce the impact of the Games. This will help ensure the optimum measures are adopted to meet the specific needs of individual businesses and local circumstances. Among the measures that can be applied are:

- changing the timing of deliveries, including the use of night deliveries under controlled circumstances, to take account of Games activity in the local area;
- changing the location of where deliveries are received, if normal access is affected;
- pre-Games ordering and stockpiling of goods, if sufficient storage space is available;
- reducing maintenance and servicing visits over the Games by the use of preventative maintenance or changing servicing schedules;
- rescheduling office moves and re-planning refurbishment work and construction activity;
- reducing the number of vehicle movements through the use of collaborative working with other businesses, increased backloading and the use of consolidation centres, including short-term 'pop-up' options; and

- the use of Delivery and Servicing Plans (DSPs) which provide a useful framework for businesses to manage deliveries to individual buildings more effectively and efficiently. Further information and a guide to producing a DSP can be found on TfL's website ([tfl.gov.uk](http://tfl.gov.uk)).

12.14 Many of these measures will deliver other advantages such as reduced delivery times and fuel savings, together with consequent sustainability benefits in reduced carbon dioxide emissions. They will also have the potential of being continued to provide long-term benefits after the Games.

12.15 The selection and implementation of the specific measures will be the responsibility of individual businesses in line with their particular needs and local circumstances. The ODA and TfL will work with local authorities to facilitate the use of measures, such as night deliveries, as well as funding a number of night-delivery trials in conjunction with the Noise Abatement Society. The trials, as well as wider DfT-sponsored trials, will provide a suite of measures to minimise the noise of night deliveries. They will also provide practical lessons for implementation during the Games, as well as supporting applications for dispensation from existing restrictions.

12.16 Due to the potential for the increased use of night deliveries, TfL is working with London Councils regarding the interface with the London Lorry Control Scheme over the Games period.

### Provision of information

12.17 Details of the ORN, PRN and their associated traffic measures will be available via TfL. In addition, the information will be made available to satnav, journey planner and routeing and scheduling system providers to incorporate in their systems. During the Games, planned changes to the measures, such as use of the Alternative ORN and PRN in London, will be communicated via the London 2012 website. Short notice changes, for example as a result of an accident or security incident, will be advised via normal traffic advisories, including the use of national and local radio.

### Servicing of venues

12.18 LOCOG and UPS are planning the servicing of competition and non-competition venues, taking into account:

- the design of access routes and load and dispatch areas within venues and factoring in the nature of Games-time servicing requirements;
- the requirement to minimise venue servicing during peak periods;
- the viability of using non-road modes of transport for deliveries, for example, use of waterborne delivery methods;
- careful routing, scheduling and load planning to minimise the number of road miles operated by servicing vehicles; and
- safety and security in and around logistics facilities and at each of the venues in accordance with IOC guidelines and industry best practice as advised by the Security function.

12.19 Managing the impacts of delivery vehicles during the Games will be undertaken on a venue-by-venue basis, taking into account the configuration of local transport networks and the existing freight management arrangements and the security access requirements.

12.20 This issue will be considered during the venue transport planning process, in consultation with venue operators and local authorities. This will identify areas of concern with the movement of people and goods at these locations, and any specific servicing arrangements that will need to be put in place. These venue-specific servicing plans will form part of the venue transport plans.

### Congestion charging and London Low-Emission Zone

12.21 The movement of goods, particularly by road, is heavily regulated with legal obligations attached to vehicles, drivers and operators. In London, there are additional obligations that impact on the movement of road freight. The London Congestion Charging Zone will continue to be enforced during the Games, as will the London Low Emission Zone (LEZ). An extension of the LEZ to include larger vans, minibuses, motor caravans and other specialist vehicles was deferred by 15 months and will now be implemented from 3 January 2012. Further details of the schemes can be found on the TfL website ([tfl.gov.uk](http://tfl.gov.uk)).

### Rail freight operators

12.22 The Games infrastructure development and construction has presented opportunities for new business for rail freight operators. The ODA has contributed over £100 million to the upgrade of the North London Line, a major artery for freight routed through east London, creating capacity for enhanced passenger services during the Games, as well as existing freight flows.

## Other modes

12.23 Other freight transport modes, such as air and water, are unlikely to see significant direct impacts during the Games. However, as these modes invariably include an element of road transport to move their goods, transport operators and the originators and receivers of goods using these modes will need to factor the impact of the Games on the road element into their plans.

## Chapter 13

### Transport safety

13.1 The organisation required to deliver spectator transport during the Games is complex, with many companies working together across the transport modes and the nationwide venues. The vast majority of organisations involved in Games spectator transport are required under existing UK law to do all that is reasonably practicable to manage the safety risks from their operations to a level that is as low as reasonably practicable (ALARP). This means that decisions that may have a safety impact must be based on the level of risk and controls are proportionate to the risk. This is reinforced by the requirements in the London Olympic Games and Paralympic Games Act 2006 (the Act) for the ODA to have regard to the importance of ensuring the safety of individuals participating in and attending the London 2012 Games events. The one significant exception is the highways authorities, which use different approaches to ALARP.

13.2 The Act makes the ODA responsible for ensuring adequate arrangements are made for the provision, management and control of facilities for transport. Although it recognises that in practice the transport will be delivered by transport delivery partners, operators and directly managed suppliers, the ODA is well placed to assess and control risks arising from the interface of different activities and steps taken to implement this Transport Plan. An integrated Transport Safety Board has been formed, consisting of key delivery partner representatives, to work with the ODA to ensure safety activities are coordinated and fully integrated.

13.3 The Transport safety management is integrated with other aspects of management as described in chapter 3 (Roles and responsibilities) and chapter 15 (Games readiness)

#### Responsibilities

13.4 The transport delivery partners and operators are identified in chapter 3 and cover all modes of transport. Key roles and responsibilities for transport safety during the Games are:

#### ODA

- Ensuring adequate arrangements are made for the provision, management and control of facilities for transport;
- Identification of competent suppliers and partners;
- Safety of directly managed services;
- Integration of data and management of system risk model;
- Exercises and testing of plans; and
- Monitoring, audit and overview.

#### Transport delivery partners

- Compliance with relevant legislation;
- Management of risks associated with their undertaking and any additional risks arising out of the Games;
- Cooperation with the ODA regarding integrated transport and provision of data and information; and
- Management of their own sub-contractors and suppliers.

#### LOCOG

- Management and planning of venues including licensing and grey-space issues; and
- Cooperation with the ODA regarding integrated transport and provision of data and information.

#### TfL, Highways Agency and local authorities

13.5 Detailed design and operational planning of the ORN and PRN in London will be led by TfL, in collaboration with the relevant boroughs and the ODA. Outside London, the ODA will enter into agreements with the Highways Agency and the relevant boroughs setting out the activities to be undertaken by the parties in respect of the ORN and PRN.

## Police, British Transport Police and emergency services

- Incident management; and
- General enforcement duties.

## Overall strategy

13.6 The organisations involved in delivering spectator transport during the Games all have their own set of legal duties that they must satisfy. The ODA strategy must ensure that appropriate systems exist to effectively implement and monitor safety. The ODA must have confidence that each partner effectively manages its own safety obligations and the impact of its contribution to the transport system during the Games.

13.7 The key stages of the strategy adopted to understand and manage safety risk are:

- understanding the safety risks of the transport operations;
- identifying good practice;
- mitigations to manage risks to ALARP; and
- monitoring, review and continual improvement.

13.8 To understand the risks to spectator transport during the Games, a programme of risk assessment was initiated that integrates the findings of a 'Top Down' Quantified Risk Assessment (QRA) and a 'Bottom Up' Hazard and Operability study (HazOp). The QRA is based on data taken from industry models, forecasts and incident data. This data has been used to statistically identify the potentially most significant risks in terms of type (eg, congestion) and venue location. This approach has been supplemented by the HazOp studies that are focused on venues and park-and-ride sites and include physical reviews of the sites, and workshops to identify and rate risks using structured techniques. The findings of these activities have been used together to identify where improvements in risk management can be made, and provide information on appropriate and proportionate controls.

13.9 The risk assessment process used has three phases, with the first phase completed in 2010. This led to the identification of improvement actions that have either been implemented or are programmed. Stage two commenced in March 2011 when all partners and organisations provided updated information on the completion of their own improvement actions. This will be used to update the overall system risk assessments. Stage 3 will be initiated in September 2011 and will involve a final review and confirmation that risks are managed to ALARP.

13.10 The delivery partners are responsible for implementing mitigations in their own organisations, and in all cases retain direct responsibility for the safety of their operations. The strategy has been to work with the delivery partners to agree proportionate measures based on risk, and as appropriate, the ODA has provided funding and resource to some initiatives. To date, mitigations implemented include:

- railway infrastructure enhancements to address risks from congestion;
- secondment of specialist technical staff to LOCOG to ensure effective management of safety at venues and interfaces; and
- transfer of specialist technical staff to Transport for London to ensure effective handover and delivery of the ORN and PRN.

13.11 The ODA retains direct responsibility for its own staff and for the safety of its directly managed services. Delivery partners retain responsibility for the direct operation of the services themselves, including users of the services as well as for staff under their control. Key activities that have been completed or programmed include:

- training of managers in safety and risk assessment techniques through the British Safety Council. This course was developed for the ODA.
- training of Directors and Senior Managers through the IOSH Directing Safety courses. This course was tailored to transport risks.
- selection of competent suppliers.

13.12 Through all stages of the programme the ODA has sought to identify good practice and learn from experience. This has been through the knowledge of the delivery partners, learning from reports into major

incidents and through first-hand experience gained by visits to the Beijing 2008 Games and the Vancouver 2010 Winter Games. All issues identified have been logged and, where actions are confirmed, these are allocated a responsible manager and their progress tracked and reported to senior management.

### Transport safety readiness case

13.13 The Transport Safety Readiness Case documents the arrangements that have been established for providing confidence that safety risks are effectively managed to ALARP. This represents how well the overall strategy has been achieved and how all organisations have satisfied their own responsibilities. The final revision of the Transport Safety Readiness Case will be approved in late 2011. At this stage, the case will:

- provide confidence that the arrangements for the provision of safe transport are suitable and sufficient with risks managed to ALARP;
- clearly identify communication and cooperation structures for ensuring transport safety readiness; and
- promote safety awareness across the complexity of organisation involved in transport during the Games and ensure that any interface issues are clarified and appropriate controls implemented.

13.14 All of the arrangements that the ODA is directly responsible for and those that the delivery partners are responsible for will be subject to rigorous exercises and testing throughout 2011 to ensure they deliver a system that is able to deal with the forecasts and ensures that risks are managed to ALARP.

13.15 Satisfying the safety obligations for implementing this Transport Plan, assessing and controlling risks arising from the interfaces of different activities is achieved through:

- competent delivery partners;
- strong governance and an integrated Transport Safety Board with independent members from rail, road and other modal partners;
- safety awareness training for ODA managers and staff through training programmes;
- auditing of park-and-ride safety by the British Safety Council;
- a robust series of safety readiness exercises and testing; and
- development of a Transport Safety Readiness Case that demonstrates safety systems are ALARP.

## Chapter 14

### Transport security planning

14.1 A key objective in the London 2012 Olympic and Paralympic Safety and Security Strategy is to protect venues, events, supporting transport infrastructure, and those people attending and using them. This strategy was developed by the Olympic and Paralympic Security Directorate (OSD) within the Home Office. At a UK Government level, responsibility for transport security rests with the Secretary of State for Transport and DfT. The existing security regime for the transport sector aims to provide a layered approach to security, appropriate to the national threat level and flexible to adapt to any changes to it. It recognises the differences between transport modes and the role that an efficient and effective transport system plays in supporting the national economy and quality of life. To meet the security challenge of protecting the transport networks for the Games, the London 2012 transport security operation will require close engagement with and cooperation from industry. DfT provides strategic level oversight and assurance of transport security within OSD.

14.2 In accordance with the London Olympic Games and Paralympic Games Act 2006, the ODA is responsible for helping to ensure safe and secure transport to and from the London 2012 Games and therefore works in close collaboration with OSD and DfT.

14.3 Specifically, the ODA has established relationships with the following:

- DfT
- Home Office and OSD
- GOE
- British Transport Police (BTP)
- Metropolitan Police Service (MPS)
- regional police forces
- GLA City Operations projects
- transport delivery partners (including the Highways Agency, Network Rail and TfL)

#### Strategic approach to transport security

14.4 Transport plays a crucial role in the success of the Games and the secure travel of the athletes, media, VIPs, spectators and public is of paramount importance. The challenge of providing a safe and secure transport system will require an integrated approach to planning between transport modes and implementing security measures while minimising the impact on operations.

14.5 Transport security planning for the Games builds on an existing and established security regime. It aims to identify specific additional risk over and above 'business as usual', in the light of the changes to transport services and expected travel patterns set out in the Transport Plan, and to develop and implement plans to mitigate it.

14.6 To ensure an integrated approach, the OSD-appointed National Coordinator for Cross-Modal Transport Security is responsible for coordinating road, rail, aviation and maritime security planning, leading the OSD Transport Security Project and chairing the Transport Security Working Group (TSWG).

14.7 The National Coordinator reports to the Transport Security Steering Group (TSSG), which is chaired by the DfT. This reflects DfT's role in representing transport security on the Olympic Security Board, as well as the Secretary of State for Transport's overall policy responsibility for transport security.

#### Progress

14.8 Work on transport security started during the bid phase and since 2007 there has been a dedicated ODA Transport Security team. However, delivering transport security during the Games is challenging and complex due to the large number of stakeholders within the transport sector. To address this challenge, and ensure success, the ODA, DfT and the National Coordinator for Transport Security established a joint Project Coordination Office (PCO) for the Olympic Transport Security Project, to coordinate transport security and manage the interfaces with the OSD Programme.

14.9 To communicate the transport security vision and deliver its implementation, the PCO team has produced a number of key documents, including:

- Transport Security Strategy, which sets out the vision and goals for transport security for the London 2012 Games and integrates the transport planning with transport security; and
- Transport Security Management Plan, which details the management framework, roles and responsibilities and processes to deliver a practicable Transport Security capability.

14.10 As part of the delivery framework for the Olympic Transport Security Project, modal working groups have been established for:

- aviation;
- maritime
- rail (including TfL services); and
- road.

14.11 Each group is led by a senior member of the Association of Chief Police Officers (ACPO) and comprises representatives from the ODA, LOCOG, DfT, the transport industry and security advisers.

14.12 In order to ensure that transport security work addresses the key areas of risk, the modal working groups have carried out national level risk assessments for the additional risk of the Games to their respective modes. These assessments are kept under review and formally reviewed annually.

14.13 Venue-level transport security risk assessments, coordinated by the regional police forces and supported by the transport security PCO, are being carried out on a regional basis. These have been informed by the national level transport security risk assessments. These risk assessments will drive the measures in the venue transport security plans.

14.14 At the local level, regional police forces are coordinating the development of venue transport security plans in response to the venue level risk assessments, through which mitigation measures will be put in place. These will cover the transport serving LOCOG venues and some non-competition venues.

### Forward work programme

14.15 Future work will focus on continuing to deliver a comprehensive and robust transport security capability. This will involve ensuring full integration with stakeholders and aiming to achieve the most efficient and effective delivery approach.

14.16 This will require a number of activities to be undertaken including:

- working with stakeholders and industry to implement the extensive strategic and planning work that has been undertaken;
- continuing to refine the transport security risk register to ensure the optimal capability will be in place for the Games;
- supporting the development of venue-level transport security plans to respond to the identified risks. These will continue to evolve as the ODA's transport plans and LOCOG venue plans are implemented; and
- contributing to assurance and cost control processes to ensure that the expectations of the ODA and Government are being delivered, and value for money is driven through decisions made on transport security.

## Chapter 15

### Readiness for the Games

15.1 London 2012 and its transport delivery partners need to be 'ready' to move spectators in a timely and safe manner. This chapter identifies the processes that are being adopted to provide confidence that the transport arrangements described in the chapters of this Transport Plan are being delivered as planned, and that the transport arrangements will be 'Games Ready'.

15.2 'Games Readiness' or 'Readiness' is defined as the state where confidence exists that all elements of the transport system are sufficiently integrated and are capable of delivering an appropriately safe and effective service during the Games. This will be achieved when new and existing transport arrangements are prepared to deal with the change in passenger numbers and types through the Games period. Furthermore, the transport system needs to cope with peaks on specific dates and at venues nationwide without creating unacceptable risks or delays. This, in turn, means being prepared and ready to work in conjunction with and across the Games-time 'domains'. These 'domains' are the five pillars of organisation during the Games: Transport, Government, Security, Games, and London operations.

15.3 The complexity and magnitude of the UK transport network requires a staged approach to delivering Games Readiness - 'no one test does it all'. Therefore, London 2012 and its transport delivery partners are working to deliver a balanced programme of Readiness events (tests and exercises) which escalate progressively from unit tests up to the domain and Games level. This four-stage programme supports the increasing levels of maturity, and development, of the Transport domain. The stages are:

1. Conceptually ready – the point at which the transport arrangements have proven to work in principle;
2. Functionally ready – when it is confirmed that individual modes or venues can operate in isolation; new and existing capabilities within domains have been defined and are adequate for Games-time;
3. Domain ready – when it is confirmed that the Transport domain is ready to operate as an integrated system and in conjunction with the other Games-time domains; and
4. Games-ready - domains have integrated with each other and meet the required capability for Games-time operations for both the Olympic and Paralympic Games.

#### Transport Games Readiness Programme

15.4 A simple governance structure oversees Transport Games Readiness. This structure supports the Senior Responsible Owner for the Games Transport programme who, in turn, reports to the Secretary of State for Transport. This structure is designed to ensure Games Transport operations are fit for purpose, integrated, and are being planned, developed and implemented in a timely and safe manner.

15.5 The overall programme for readiness includes a wide range of activities, some of which are directly managed by the ODA and others that are the responsibility of LOCOG and the transport delivery partners. The activities in the programme progressively provide evidence that arrangements are conceptually ready, functionally ready, domain ready and ultimately Games ready. They range from desktop exercises through to major events that test, exercise and validate the arrangements.

15.6 Transport Games Readiness aims to ensure the UK transport system is ready for the Games. Each transport delivery partner (eg, Network Rail, Transport for London, First Group) is directly responsible for ensuring its own arrangements are tested and are ready for participation in the Games. This means that the first two programme stages are planned and executed by the individual organisations.

15.7 A Transport Domain Readiness Working group ensures the early stages of the programme underpin and are aligned with the overall programme. In this way, all organisations are progressing towards fully integrated testing and exercising in Stage 4. This group links, in turn, to the government-led oversight body responsible for Games-wide readiness (all domains).

15.8 At all stages, learning from readiness events is reviewed and, where appropriate, fed into subsequent activities and communicated to relevant parties. This provides increasing confidence that the transport arrangements for the Games are not only ready, but also provide the optimum solution.

15.9 The programme specifically identifies a number of existing major events through 2011 and the early part of 2012 that will present an increased loading on the public transport network. These events will be used to monitor impact and identify any opportunities to improve response to and management of such events. Dedicated transport domain tests and exercises are being planned around some of these events. Key elements of the Games Readiness Programme are contingency planning, modelling, testing, and exercising (desktop, tabletop, live). Integral to all these is the training of participants from the relevant organisations.

## Contingency planning

15.10 The transport delivery partners already have established processes for emergency response and planning for contingencies. Ensuring that the contingency planning for the Games is robust requires an integrated approach between all organisations contributing towards transport arrangements. Transport organisations are working in close collaboration to integrate contingency planning. Formal mechanisms include active participation in working groups focusing on readiness and on command, control and coordination.

15.11 The integrated contingency planning process includes appropriate responses and command, control and coordination structures to deal with incidents related to:

- infrastructure failures;
- passenger actions;
- road traffic accidents and vehicle breakdowns;
- building/structure collapse;
- extreme weather conditions; and
- security issues.

15.12 Implementation of the Readiness Programme will ensure that the contingency plans work safely in practice. Transport organisations are continuing to work collaboratively to develop, test and practice their contingencies. At the hub of this activity is the Transport Coordination Centre (TCC) which is described later in this chapter and will provide a critical interface with multiple transport operators should a major incident occur during the Games. Tests and exercises of contingency plans are being undertaken.

## Modelling and observations

15.13 Modelling provides a mechanism to develop and trial complex transport arrangements and crowd management plans in a safe and unobtrusive manner. Models provide a useful means to communicate, share and adjust plans across the Games programme. Modelling has been used to test the planned arrangements for all significant transport operations and venues. This is a continuing process: further modelling is to be carried out up to the Games to test and validate arrangements and plans as they are developed.

15.14 Modelling may be used to complement physical tests. For example, the ORN and PRN will not be active until shortly before the Games begin. Therefore, simulation of the ORN and PRN's impact and dependency on other modes are being used to provide part of the input to physical tests and exercises.

## Desktop exercises

15.15 Desktop, tabletop and command post exercises are important tools for developing and testing decision-making, information and communication paths between different parties. This is the case at all levels in transport organisations, and between these levels across organisations to ensure integration of plans to deal with identified scenarios.

15.16 Desktop exercises commenced in 2010. They will increase in intensity in mid-2011 and increase gradually in complexity to ensure transport systems are robust, resilient, and can respond effectively during the Games.

## Testing

15.17 Testing is a critical component of the Games Readiness Programme. A test event is one that is part of the development phase; challenging the people, processes, enabling technologies and infrastructure. It then identifies weaknesses and indicates areas for modification/revision and subsequent validation.

15.18 The Transport Games Readiness Programme comprises tests at each of its stages. By definition, a test at any point after Stage 1 is an exercise of elements that were tested in the preceding Stage. This means that those elements that were tested at the beginning of the programme will have been exercised (and, therefore, rehearsed and validated) a number of times by the end of the programme.

## Exercises

15.19 An 'exercise' is an event that serves to verify or validate the approach (people, processes, technology and infrastructure); increasing confidence in it and the ability to implement it through training and rehearsal.

15.20 During 2011 and early 2012, live events have been identified that can provide opportunities for Games Readiness activities: Stage 4 of the Programme. Typically, existing events are being used, although in some cases there will be a requirement to overlay additional activities in order to mirror Games plans or simulate the Games environment. At new venues such as the Olympic Park, there will be a requirement to create specific events, and this will be done in partnership with the responsible management teams.

15.21 Planning is underway for large-scale readiness events which will conclude the programme. These events will be exercises in the main; validating processes and justifying confidence in the transport domain as a whole. Some elements of focused testing will also be carried out within exercises, where relevant to requirements. An approach will be taken to these large-scale exercises whereby some scenarios will be enhanced and validated further using modelling or 'virtual testing'.

15.22 A number of Readiness events will be staged where all the domains (Transport, Security, Government, Games and London) will be able to participate to some degree. This will ensure confidence that interfaces, relationships and information flows are ready and prepared.

### Training

15.23 An integral part of Games Readiness is training. Every test or exercise is used to help each of the transport organisations develop and train their people (enhancing skills and competency), build relationships across the Games programme, and improve the quality of planning through observing how they work in practice. Rehearsing and practicing the delivery of Games-time transport operations results in full preparedness of all participants and also leaves a legacy of efficiency and increased effectiveness.

### Transport Games Readiness participants

15.24 The primary participants in the Transport Readiness Programme can be grouped as follows:

- Governance bodies
- Transport security
- Public transport operators
- Games operations.

### Governance bodies

15.25 The governance bodies involved in, and with oversight of, the Transport Games Readiness Programme are DfT, GOE and Department for Culture, Media and Sport (DCMS).

15.26 The organisations are integrated in all Transport Readiness activities. Additional participants include the GLA which, with oversight of London's cultural programme, is a key stakeholder and influencer of transport in the capital during the Games.

### Transport security

15.27 Transport security is an integral part of the Transport Games Readiness Programme. Direct involvement of the BTP, Transec and the OSD is regarded as essential to Transport Games Readiness.

15.28 Security is represented in the TCC and close links to BTP are included in the plans for all other Games-time command and control elements. These links, and the processes they enable, are being tested along with other lines of communication available to the transport community.

### Public transport operators

15.29 The primary public transport operators involved in the Transport Games Readiness Programme are:

- Network Rail and the train operating companies;
- TfL; and
- the Highways Agency.

15.30 Network Rail is working closely with the train operating companies and other Games-time transport partners towards ensuring readiness of the National Rail network for the Games.

15.31 TfL has mode subsidiaries including; London Overground, London Underground, the DLR, London Buses and London Streets. Each of these modes has its own Readiness Programme that aggregates towards London transport readiness.

15.32 The Highways Agency's Readiness Programme, in common with those of the other operators, aligns with the overarching Games Readiness Programme. Each of the public transport operators is appropriately represented and actively participates in all working groups, planning and decision-making bodies.

15.33 The operators' own Readiness programmes are designed to test new Games-time components and exercise existing or modified components. The new components include new operations, infrastructure and staffing arrangements, such as:

- Network Rail (with Southeastern): high-speed Javelin<sup>®</sup> services
- TfL: DLR extension and manning of platforms, Jubilee line and other upgrades, ORN and PRN
- Highways Agency: extended responsibility (for example, ORN and PRN outside London)

15.34 Network Rail has identified a number of areas of their own operations during the Games that require testing:

- new transport operations;
- transport operations where there will be large numbers of additional/more complex passenger movements, for example at managed stations;
- where working relationships and communications require enhancements for the Games to ensure an integrated approach, for example, between managed stations and London Underground; and
- where new communication links are required, specifically with the Transport Coordination Centre (TCC) and the Olympic Park Transport Integration Centre (OPTIC).

15.35 TfL regularly manages major events that involve significant increases in loading on the London public transport network. These include Notting Hill Carnival, and royal and state events. However, it is acknowledged that the transport demand during the Olympic and Paralympic Games presents a unique challenge due to the complexity of sporting and non-sporting events at multiple sites at the same time.

15.36 The planning undertaken by TfL to ensure Games readiness includes identifying planned/parallel events during summer 2012, combining them on a day-to-day basis and developing operational assessments and the appropriate transport responses. The operational responses include determining the optimum operating capability, reviewing resources and preparing the day-by-day transport plans for each mode.

15.37 The plans developed by TfL are being progressively tested and rehearsed. This includes developing the empathy and personal contact necessary to enable the effective set-up preparations, on-the-day operation and subsequent dismantling of special transport or sports arrangements in London.

15.38 Tabletop exercises and contingency planning began in autumn 2010, bringing together functions from across each operator. These exercises have a particular focus on communications, and are ramping up in line with the wider Games Readiness Programme.

15.39 All the transport operators listed have been actively involved in all exercises held to date for the TCC and will continue to participate in future events and feed any lessons learnt into their own internal exercises.

15.40 Physical testing and exercising has already begun. An example is the Javelin® train crowd test event held in November 2010.

15.41 The operators are using the Games to act as a catalyst for identifying a number of tests of processes, people and infrastructure that in addition to providing assurance for Games operations, will leave a lasting legacy. Any lessons learnt from test events will be captured to inform continuous learning.

## Games operations

15.42 The Games transport overlay can be split into two components:

- Games transport services: spectator park-and-ride (directly managed transport), sustainable modes (such as walking and cycling), ORN and PRN, Games Family fleet.
- Games transport coordination and control: TCC, OPTIC, venue transport operations.

15.43 Games Readiness programmes have been prepared for all these components and sub-components. These address issues ranging from interaction between a coach driver and passengers at the park-and-ride through to management of the ORN and PRN both inside and beyond the M25. They also test and exercise the command, control and coordination elements that have been added to provide necessary resilience during the Games.

15.44 The design and development of the command, control and coordination elements is pivotal to the overall Transport Games Readiness Programme. A brief outline of the TCC and OPTIC are provided here, including short notes on the Readiness Programmes which incorporate these units.

## Transport Coordination Centre (TCC)

### Introduction

15.45 The TCC is a bespoke operations facility that co-locates coordinators from the major transport modes in a single operations room, which is equipped with the individual communication and information systems of the parent control rooms. Its role is to provide a central point for monitoring and coordinating all transport operations (excluding air and sea) for the entire Games period.

15.46 The TCC was formerly known as the Olympic Transport Operations Centre. It has been renamed to better reflect its roles and responsibilities.

15.47 The TCC mission statement is:

'To provide effective coordination of all partners involved in the delivery of transport during London 2012 Games on a nationwide basis, in order to promote the provision of safe, secure, reliable and timely transport services to all client groups of the Olympic and Paralympic Games, while minimising the impact to the travelling public.'

15.48 To achieve this overarching mission, two key objectives have been identified. These are to:

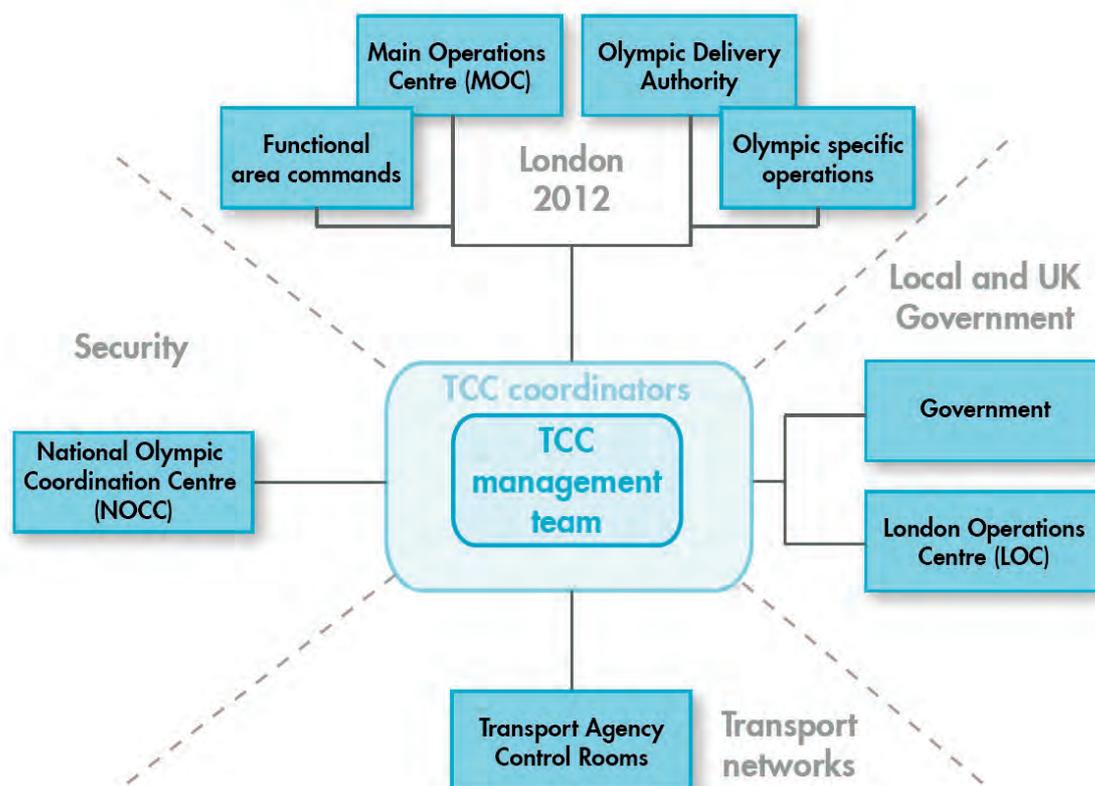
- monitor the ORN and PRN and provide information in real time to support Games Family vehicle journey times, while enabling London and the rest of the UK to keep moving; and
- provide a hub for actively sharing information between representatives from multi-modal transport agencies, the Games organisers and existing control centres to enable London and the UK to be kept free flowing.

15.49 An operations methodology (the TCC Concept of Operations) has been delivered and the detailed operating plans from this are being tested and refined through a rigorous exercise programme. This methodology recognises that the transport and security command and control functions will remain with the existing stakeholder organisations and that the TCC will not assume this responsibility, but coordinate collaborative operations and communications.

#### TCC operations and readiness

15.50 Stakeholder organisations involved in the delivery and management of transport services will either have representation within, or a communication link to, the TCC. This will enable the TCC to facilitate an unprecedented level of integrated multi-modal transport coordination and communication through a single location during the Games. The TCC has a key role within the overarching coordination and communication strategy for the Games and has links to Government, Games, Transport, Security and City Operations functions.

Figure 15.1: Transport Coordination Centre



15.51 The principle underpinning the TCC methodology is that organisations will continue with the delivery of their day-to-day operations, while network performance information will be available to their representatives in the TCC. In the event of an incident occurring on the network, the TCC representative will be in a position to take a view as to how the incident will impact on the timely delivery of Games-related transport, and therefore help to inform an appropriate response from their respective command and control centres while keeping Olympic C3 organisations informed. As the most up-to-date information will be made available to TCC representatives, information will cascade as required. A number of pre-identified contingencies have agreed actions and decision points to facilitate an effective and timely response to incidents.

15.52 The TCC facility has undergone operational set-up, facility fit-out, provision of services, testing and commissioning. The current stage will provide the technology and communication links for the TCC, and the

necessary operational plans. The TCC began testing and training staff in late 2010 and is aiming to be operationally ready by December 2011.

### Legacy

15.53 The TCC will bring together teams from London 2012, delivery partners, and transport operators from all modes across the UK.

15.54 It will be the first time a coordinated transport effort has been produced on this scale to produce more reliable journey times and coordinated transport information. The TCC will leave physical assets through new equipment and integrated communication systems, which will be available as a national asset for large-scale events in the future. One of the greatest legacy contributions will be the cross-modal skills and relationships that will be formed and developed by integrating approximately 100 staff from different organisations, working together to provide coordinated transport to the Games, which will be available to UK transport after the Games.

### Venue transport operations

15.55 During the London 2012 Olympic and Paralympic Games, all the various transport operations will converge at competition venues. All of these operations are being integrated so that the needs of Games Family, spectators and workforce are adequately met without causing undue adverse impact on local residents and businesses.

15.56 The transport operations covered include the wide range of spectator transport services. The operations include public transport, shuttle buses from rail stations, park-and-ride operations, direct coach services, taxi operations, cycle parking, pedestrian access and pre-booked accessible parking at or around each competition venue. In addition the Venue Transport Operations Team will manage Games Family transport services when operating on the ORN and PRN. These operations will be managed and/or coordinated by a lead Venue Transport Operations Manager (VTOM) at each venue in conjunction with delivery partners.

15.57 A venue-specific Venue Transport Operations Plan (VTOP) has been developed and will be tested for each of the competition venues, clearly outlining all the specific operational details. These VTOPs provide the processes, policies and procedures that will be followed in order to deliver the mandated transport requirements at each venue.

### Olympic Park Transport Integration Centre (OPTIC)

15.58 A key element of the Games transport delivery strategy is the establishment of a transport integration centre to cover the area of the Olympic Park. Located at Stratford Station, it will enhance the communication between the various transport providers in the area and, through its Crowd Management Centre, will have a key role to play in managing the crowd flows between the Park and railheads.

15.59 With rail services at Stratford, Stratford International and West Ham stations working close to capacity for much of the Games and handling up to 80 per cent of the anticipated visitor numbers, OPTIC will have the role of monitoring, directing and redirecting the crowd flows as appropriate into the various stations to make the most effective use of available train capacity. A direct result will be to minimise queuing times and enhance the customer experience.

15.60 Co-location with the Venue Transport Operations Manager's organisation will ensure that resources are concentrated to provide a service to support the transport providers with their responses to various contingencies.

15.61 OPTIC will be tested in stages culminating with participation in a large-scale Readiness event which focuses on volumes and the complexity of Stratford during the Games, while also addressing the interdependency with other geographical areas.

### Testing, training, exercising and modelling: status

15.62 Substantial work has been undertaken by the ODA, LOCOG and all the operational delivery partners at the modal and operational unit level. For example:

- Network Rail recently ran tests for Javelin® at St. Pancras International;
- the DLR has been carrying out tests and modelling work;
- the TCC has been running workshops and multi-domain exercises;
- the ODA has carried out the extensive modelling work which underpins the Transport Plan and travel demand management; and
- TfL and its subsidiaries exercise on a regular basis and run live events every week, and the Highways Agency's plans are progressing well.

15.63 The overall Readiness Programme has been developed to ensure a balanced, comprehensive approach across all transport partners. This programme is designed to pressure test the various Games-time operational elements and has, as its ultimate objective, to validate the operation of the transport domain as a whole in the wider Games context.

## Chapter 16

### Travel demand management

16.1 To enable LOCOG to stage a successful Games programme, a travel demand management (TDM) programme is required. Along with background demand, ticketed spectators, Olympic Games workforce and people attending cultural events and Live Sites will generate exceptional travel demand on the public transport network during the Games. In addition, traffic management measures associated with the ORN and PRN and around venues will affect the highway network.

16.2 Although there has been significant investment in transport enhancements, the ability to provide extra capacity is finite. Demand forecasting undertaken by the ODA has shown that in some locations and at certain times of the day, demand will be greater than the capacity available on both the public transport and highway networks.

#### Strategy

16.3 The TDM programme focuses on promoting short-term changes to travel behaviour during the summer of 2012. A wide variety of interventions are being implemented to raise awareness of the impact that the Games will have on transport and enable travellers to make informed travel choices.

16.4 TDM interventions include:

- raising awareness of the transport impact of the Games and the transport choices available;
- providing information on the location of the busiest parts of the transport network;
- providing travel advice for regular users of the transport network, businesses and spectators; and
- encouraging people to pre-plan their journeys.

16.5 During the development of the TDM strategy, lessons were drawn from previous TDM programmes deployed for the Sydney 200 Games, Salt Lake City 2002 Winter Games and Vancouver 2010 Winter Games. This analysis provided confidence about the level of reduction in travel that could be achieved, as well as an insight into the success of TDM interventions implemented.

16.6 The TDM programme is designed to work alongside transport operational measures to help balance demand with available capacity.

#### Approach

16.7 The TDM programme was launched in 2010 and will remain operational until the Paralympic Games close in September 2012. TDM is a national programme, designed to allow flexible application in response to local circumstances. The programme will be applied to London and around regional venues where the transport challenge is the greatest. The ODA transferred the resources and responsibility for the delivery of the London 2012 TDM programme to TfL in 2011. This coincided with the shift in focus from the planning phase of the programme to one of implementation and operational delivery. The TDM programme will be delivered with LOCOG and key partners in London and nationally.

#### Raising awareness and encouraging action

16.8 In the lead up to the Games, information will be provided to raise awareness about the impact that the Games will have on transport and tell people where further information can be obtained.

16.9 Information will be targeted at a range of audiences who make a variety of journeys. Raising awareness in commuters travelling to and around London and close to regional venues will be a particular focus as they travel during the busiest times of the day. Other audiences include those travelling through the busiest part of the network, those living or travelling near competition venues or the ORN and PRN, and spectators.

16.10 People will be encouraged to check whether their journeys are likely to be affected and consider whether they need to travel or consider changing their route, time of travel or mode.

16.11 The process of raising awareness started in 2010 and will continue up to and during the Games. As the Games get closer and people start to plan their journeys, the information available will become more detailed and direct.

#### Travel advice for regular users of the transport network

16.12 Travel advice will be provided for regular users of the transport network in the lead up to and during the Games. Travel advice will enable them to check whether their normal journeys are likely to be affected and consider the alternatives available.

16.13 The information will include details on the scale and duration of the Games, maps showing expected transport hotspots and advice on how to take action and plan.

16.14 The TDM programme will also work with existing travel planning services, including Transport Direct, TfL's Journey Planner, National Rail Enquiries Service and the Highways Agency, to ensure consistent travel advice is provided to regular users of the transport network through trusted sources.

### Travel Advice for Business

16.15 Travel advice will be provided to businesses and other organisations in the lead up to and during the Games to ensure that they can continue to operate effectively during the Games.

16.16 The target audience will include businesses and other large trip generating organisations such as Government departments, hospitals and leisure and tourist destinations in areas where transport is likely to be affected.

16.17 The programme consists of three core elements including:

- engaging with local authorities, business networks and large corporate organisations and providing information to their members and networks through workshops and their existing communication channels;
- targeted activity to provide support to individual businesses and organisations near transport hotspots, including assistance in preparing transport action plans for deployment during the Games; and
- providing self-help materials for organisations, including information on the scale and duration of the Games, maps showing expected transport hotspots and advice on how to take action and plan.

16.18 Organisations are encouraged to check how their operations might be affected during the Games and make use of the advice available to prepare for the Games. Organisations will also be able to register for regular transport updates in the lead up to the Games.

### Travel information services

16.19 The TDM programme is also providing journey planning information for spectators in the lead up to and during the Games. Information has been, and will continue to be, provided to LOCOG for inclusion within the various Spectator Guides and Ticketing Guides for tickets sold in the UK and abroad through National Olympic Committees.

16.20 In addition, a spectator journey planner will be available from summer 2011. The spectator journey planner will enable spectators to plan their journeys, select their preferred travel options, and direct them to travel booking facilities.

16.21 Travel guidance will also be published via a variety of media including advice on attending multiple venues, travelling to venues from across the UK and the local transport arrangements around venues.

16.22 The spectator journey planner will include the planning of travel for disabled spectators.

16.23 The objectives of providing accessible travel information are to:

- enable safe, secure, efficient and accessible transportation options for disabled spectators to and from Games events;
- ensure disabled people can make travel decisions with ease and confidence; and
- promote a legacy of highly accessible transport and improved confidence in the use of public transport.

### Games-time operation

16.24 The implementation of TDM during the Games will be coordinated through the TCC and will include planned and reactive messaging to both regular users of the transport network and spectators.

16.25 Through working with delivery partners including TfL and the Highways Agency, real-time information will be provided during the Games, such as notification of network problems, incidents and planned events.

## Chapter 17

### Sustainable transport

17.1 London's bid to host the 2012 Games included a vision of how the Games would contribute to the sustainable revitalisation and regeneration of east London. The importance of providing a high-quality, low-carbon and accessible transport system was also recognised as an intrinsic element of this vision during and after the Games. Therefore, delivery of the Games-specific transport infrastructure and operations is a significant component of the sustainability vision for the Games and beyond.

17.2 The London bid for the 2012 Games presented the concept of 'Towards a One Planet Olympics'. This was derived from the WWF/BioRegional concept of One Planet Living®, which encapsulates the world's environmental challenges in stark terms: if everybody in the world lived the same lifestyle as the average person in the UK, three planets' worth of resources would be needed to support this lifestyle. The Games present an opportunity to demonstrate how lifestyle changes can lessen the demand on available resources.

17.3 The London 2012 Sustainability Policy was published in July 2006. It set out five key themes to realise the sustainability vision. These were:

- climate change
- waste
- biodiversity
- inclusion
- healthy living

17.4 The London 2012 Sustainability Plan, Towards a One Planet 2012 (published in November 2007), provides the strategic framework and commitments to deliver sustainability under each of these main themes. A revised Plan was published in December 2009.

17.5 With respect to the planning and delivery of transport infrastructure and operations, London 2012 has developed its approach to sustainability by focusing on key aspects where transport might have a significant impact and thus allocating funds in the most effective and efficient manner. These themes are:

- climate change (CO<sub>2</sub>) and other greenhouse gas (GHG) emissions;
- accessibility and inclusion; and
- healthy living.

#### Climate change and transport

17.6 In the context of Games transport and reduction in CO<sub>2</sub> and other GHGs, London 2012 seeks to:

- encourage 100 per cent of spectators and workforce to travel to London venues by the most sustainable modes, namely public transport, walking or cycling;
- minimise the carbon emissions generated by the transport arrangements; and
- leave a positive transport legacy after the Games in terms of behaviours and practices.

#### Sustainability principles

17.7 The ODA is investing hundreds of millions of pounds to improve public transport infrastructure. This complements investment by its major transport delivery partner, TfL. The focus of this work is to boost the capacity, frequency of, and access to, public transport.

17.8 The enhanced transport infrastructure and sustainable transport systems will provide sustainable transport links during the Games, and after the Games, improved access to employment and amenities for improved quality of life.

17.9 During the planning of Games transport, the following sustainability principles have been adopted. London 2012 will make best use of existing transport infrastructure.

17.10 New infrastructure will only be built where it is absolutely necessary, provides a legacy benefit, or where it was already planned to be built. Temporary arrangements will be used where there is no obvious legacy benefit from permanent infrastructure.

17.11 The transport strategy for the Games includes a commitment to maximise the use of public transport travel modes for spectators and workforce. There will be no public car parking at any competition venue, except for some pre-booked accessible parking. Ticket holders will receive a Games Travelcard to use on public transport within the Greater London area on the day of their sports event ticket.

17.12 London 2012 is also promoting walking and cycling as key parts of the transport strategy. Encouraging and enabling spectators and workforce to walk or cycle to certain events for some or all of their trip will:

- help to reduce the carbon impact of transport provision;
- provide a healthy journey option; and
- assist in reducing demand for public transport in peak periods.

17.13 The ODA is investing in walking and cycling infrastructure and will provide information to promote these transport modes during the Games through the Active Travel Programme.

17.14 The ODA and its partners have also invested heavily in other infrastructure projects, which are expected to contribute to longer-term reduction in carbon emissions through potential mode shift. The investments fall into three main categories:

1. Enhancing transport projects, such as co-funding part of the new DLR capacity enhancement and infrastructure improvements.
2. Enabling projects to be started and finished before 2012 that would not otherwise materialise until after the Games.
3. Directly managing and delivering transport projects, such as the Stratford station upgrade.

17.15 Throughout this publication there are numerous examples of programmes and projects that London 2012 has initiated or contributed to that in some way will complement the ODA's approach to carbon reduction, inclusion and healthy living. For example, incorporating carbon reduction principles in further variations of transport planning and certification of its management system to the sustainable event standard BS 8901:2009 '.

### Strategic Environmental Assessment

17.16 As part of the development of the Transport Plan, the ODA commissioned an independent Strategic Environmental Assessment (SEA). The purpose of the SEA was to ensure that environmental impacts were taken into consideration at the earliest opportunity. In particular, it covered areas such as climate change, air quality, and noise related to the Transport Plan.

17.17 The SEA Environmental Report concluded that: because the Plan specifies the use of existing public transport infrastructure and services and due to the limited duration of the Games, the SEA has not identified any significant adverse environmental effect that will be likely to arise from the operation of the measures contained in the Transport Plan. However as detailed operational plans mature the ODA will work with TfL, the GLA and delivery partners to update relevant Environmental Assessments to ensure that this still remains the case and that mitigations are appropriate.

### Transport Sustainability Forum

17.18 The ODA has set up a Transport Sustainability Forum to share information and knowledge about developments with its delivery partners and key stakeholders. Generally the Forum meets on a quarterly basis and includes representation from delivery partners, the Commission for a Sustainable London 2012 and LOCOG.

### Climate change

17.19 One of the key focus areas for the ODA has been to use the emerging science of carbon foot-printing to understand how and where its activities have a potential impact on GHG emissions, so that it can prioritise its reduction efforts in the most economic and beneficial manner.

17.20 As part of the ODA's commitment to sustainability, the carbon emissions for transport projects are being measured and carbon reduction strategies developed and implemented.

17.21 The ODA uses different funding and delivery mechanisms to implement its programme, with varying degrees of control and influence. The ODA has adopted internationally accepted accounting standards that apportion the CO<sub>2</sub> to those who have produced it at source. As the ODA uses a variety of delivery mechanisms for new transport infrastructure, it is therefore not accountable for the total CO<sub>2</sub> emission.

17.22 A 'best in class' approach to carbon dioxide reduction has been adopted. Where responsibility for projects is shared, each project has been individually assessed for impact and degrees of influence and control, and a suitable carbon dioxide reduction approach adopted.

17.23 Stratford station is an example of this approach. It is owned and managed by Network Rail and London Underground, but the ODA has contributed funds for works to increase its capacity and accessibility. As the degree of ODA control is limited, the ODA has funded a programme to identify opportunities across the station to reduce carbon emissions.

17.24 The Stratford station upgrade is now part of London Underground's sustainable stations initiative, which includes trials of new and innovative carbon reduction technologies. Using TfL's 'Climate Change' funding, the ODA is exploring the installation of automatic metering and building energy management systems.

### Orient Way

17.25 An example of how the ODA has built carbon emission reduction into its programme is illustrated by the Orient Way project. The project involved relocating a rail siding facility from the centre of the Olympic Park to a new sidings and depot that could be used to stable rolling stock during non-peak periods. All possible options for building carbon reduction into the project were validated for compliance with rail safety and asset standards before any agreements were made.

17.26 The following principles were developed and used:

- adopt a systematic and process-based approach;
- understand the high-impact areas at the earliest stage;
- build carbon emission reduction into the design process;
- reuse materials where safe and practicable;
- minimise waste and maximise recycling; and
- influence attitudes and behaviours.

17.27 A Civil Engineering, Environmental Quality standard (CEEQUAL) process was adopted as a starting point assessment and award. Further work was carried out to better understand where carbon was being emitted and how best to reduce it.

17.28 The review found that the largest carbon savings could be made through the reuse of materials which included steel from the track (rail), sleepers (wooden and concrete) and ballast. As a result, high recycling targets were set – for example, the aim to reuse all the existing track where it was possible to do so safely.

17.29 During the project, approximately 99 per cent of the demolition and site clearance waste was recycled including:

- 4,000 tonnes of crushed concrete – 1,000 tonnes reused on site, 3,000 tonnes reused off site;
- 620 tonnes of tarmac; and
- 180 tonnes of steel.

17.30 In addition, all track was reused including the switches, 14 of which were reused at Orient Way and nine were made available for reuse at other sites. Around 20,000 tonnes of site ballast was screened and reused. General construction waste was sent to a material recycling facility. The amount was equivalent to 30 per cent of the total volume recycled rate. In all, only two general construction waste skips were generated during the whole construction project.

17.31 Overall it was possible to achieve a 40 per cent reduction in the volume of carbon emitted against usual construction methods.

### West Ham

17.32 Temporary capacity enhancements are being made at West Ham station to cater for the higher number of spectators expected to use the station during the Games. A temporary walkway is being built to provide another entry and exit between the station and The Greenway, which spectators will walk along to reach the Olympic Park.

17.33 Where possible, surplus materials from the Olympic Park are being included within the specification for the works to allow project-wide reuse and minimise travel distances. Levelling of lands and gabion filling, as well as pavement edging in cobbles have been identified for reuse.

17.34 The West Ham Project is also subject to the Civil Engineering Environmental Assessment (CEEQUAL) process in order to maximise its sustainability performance.

17.35 The ODA has competitively tendered for the opportunity to install spectator powered lighting trials. The systems generate electricity through footfall harvesting for night-time illumination of the structures from high-efficiency lighting sources. On the busiest days, it is hoped that the full lighting demand will be supplied by the flow of spectators over the harvesters.

17.36 The temporary walkway structures at West Ham station and The Greenway will be dismantled after the Games with the many hired items returning to the suppliers for reuse. Remaining materials will, where possible, be reused in their existing form or recycled.

## Stratford station

17.37 The ODA is discussing a range of low-carbon design options with London Underground (LU) to enhance the sustainability credentials of stations used by spectators to access London 2012 venues. Any such options would complement the work LU is already implementing such as improving the management of lighting at the station.

## BS8901

17.38 The ODA is committed to operating a sustainability management system that meets the new British Standard BS 8901:2009 'Specification for a sustainability management system for events'. The ODA was independently certificated to this standard in February 2010 and is understood to be the first UK transport organisation to achieve this.

17.39 The ODA received the London Excellence Award for Management Systems in July 2010. This was in recognition of the attaining certification to BS8901:2009 and also to ISO 9001:2008 (Quality) and OHSAS 18001:2007 (Health and Safety) standards.

## Chapter 18

### Transport legacy

18.1 From the start of London's bid for the 2012 Olympic and Paralympic Games there was a clear determination to host a 'public transport' event. This was subsequently expressed in the original Transport Plan.

18.2 There were two main ways to meet this aim: create new public transport systems, but risk them becoming redundant after the 2012 Games, or invest in and enhance the existing transport network. In terms of practicality, the latter course was the obvious choice because it was deliverable in the six-year timescale and because of the lack of physical space and high capital costs associated with inserting new systems in existing cities.

18.3 By far the major influence in the decision to invest in existing systems was the opportunity to use the significant investment in transport to deliver benefits that were felt by passengers long after the 2012 Games. This approach, combined with London's bid majoring on using a variety of existing prestigious sports venues already served well by public transport, rounded out and confirmed the approach.

18.4 Legacy is embedded across all of the ODA's capital transport projects – 75p out of every pound spent goes towards long-term regeneration. The c£500 million invested in long-term transport improvements was designed with this legacy in mind to leave a positive impact across all venues, wherever they are across the UK.

18.5 An important feature of the ODA's overall transport programme is that nearly all of the permanent legacy benefits were delivered by the end of 2010, nearly two years before actually needed for Games-time capacity and operational needs.

18.6 The ODA's 2012 transport package is based on land use redevelopment and regeneration.

18.7 Following a commitment made in the Mayor's Transport Strategy, published in May 2010, the Mayor of London is publishing his own Olympic and Paralympic Transport Legacy Action Plan. This is to ensure the physical, behaviour and further legacy opportunities are captured for London. It will help provide the capital with a lasting transport legacy from the Games, including supporting convergence between the social and economic opportunities of the communities hosting the Games with those elsewhere in London. The plan will be embedded in the sub-regional transport planning process and delivered through the TfL Business Plan and the boroughs' Local Implementation Plans. There will be a monitoring programme to ensure the transport and other benefits of the legacy of the 2012 Games are maximised.

#### Geographical legacy emphasis

18.8 When plans for the 2012 Games bid were being made, significant gaps in capacity, in quality of delivery and accessibility had to be addressed. With a focus on an Olympic Park site in east London, north of Stratford and several venues to the south by the River Thames, these parts of London were most likely to benefit from investment in public transport.

18.9 Although not specified as such in the London Olympic Games and Paralympic Games Act 2006, the desirability of providing permanent or very long-term transport benefits emerged as a key feature of the transport strategy.

#### Permanent investment: three delivery methods

18.10 The ODA has defined the main transport legacy benefits in three ways. Firstly, it enhanced some existing transport projects by carrying part of the cost identified in delivery of specific parts of a larger project, such as co-funding part of the new fleet of trains for the DLR.

18.11 Secondly, it funded some projects to be started and finished before 2012 that might not otherwise materialise until some time after that date, thus providing benefits earlier than would otherwise be the case. An example of such a scheme is the Lee Valley Lines capacity enhancement.

18.12 Thirdly, it directly managed and delivered some key transport projects, such as the major upgrade of Stratford station, where it trebled capacity.

18.13 In addition, £6.5 billion background schemes, included in the bid and in guarantees to the IOC, also feature in the longer-term benefits delivered. These projects are being planned, funded and delivered by government or other transport bodies outside of Games-specific funding.

18.14 The East London Line project and the new train fleets for the Victoria, and Circle, Hammersmith & City and Metropolitan lines are examples of such projects, which will be delivering benefits in 2012. London Underground's ongoing investment in the Jubilee and Central lines was part of the bid offer and these projects provide a mix of permanent capacity increases, faster journeys, improved reliability and improved access to specific localities.

## Limited temporary measures

18.15 At some locations, temporary facilities will be put in place to assist in delivery of public transport services during the summer of 2012. These facilities will be used where they represent better value for money and to ensure a sustainable legacy.

18.16 A prime example of this is at West Ham station. West Ham is a major interchange in east London with eight platforms and, along with Stratford and Stratford International, is one of the three main stations serving the Olympic Park. Transport modelling work predicts over 15 per cent of London 2012 spectators can be routed via this station, relieving the two other stations. Spectators will walk via an enhanced route called The Greenway, a public pathway that is being enhanced for the Games and beyond.

## Contributions to existing projects

18.17 Contributions to other projects include the DLR upgrades and the London Overground North London Line reconstruction. The investment in new cycleways and walking routes with TfL and local authorities has also involved a system of client monitoring of financial expenditure and project milestone deliverables.

## Contributions to rail

18.18 Projects with a lasting legacy benefit to London into which the ODA has contributed include:

- Stratford station where major capacity and access enhancements have now been completed. This station – located at the busy heart of Stratford town centre on a major traffic artery and adjacent to the large 275,000sq m Stratford City shopping centre – is predicted to expand from a total of 37,000 commuters using the station each morning in 2008 to 83,000 in 2016. Much of the rebuilding work has been carried out without closing the station and 2012-specific impacts have been kept to an absolute minimum. The main features of this c£125 million project has included installing lifts, new passageways and staircases, straightening and lengthening platforms and adding a new mezzanine level entrance together with associated track work and signalling changes.
- A total of nine DLR projects have received £80 million from the ODA, all for long-term legacy benefits, as well as enhancing capacity and access at specific stations for 2012 and beyond. Included in the total are contributions to conversion to DLR operation of the former North London Line between Stratford and Canning Town (with an extension north to Stratford International Station); DLR infrastructure works for three-car operation; the extension under the River Thames to Woolwich Arsenal, opened in January 2009; and, co-funding part of the new DLR train fleet.
- Funding for National Rail Games schemes include the upgrade of the whole of the North London Line. This corridor provides a significant and useful link between West London, North London and Stratford and serves both deprived and congested communities en route. This is a prime example of long-term legacy benefits. The new platforms at Stratford station for the service are already in use. The ODA has contributed c£100m, one quarter of the cost.
- The relocation from Thornton's field to Orient Way of mainline passenger train stabling facilities is an often-overlooked project. It was the first major transport project to be completed and had to be done urgently – to move overnight a large train fleet stabled in what had become the Olympic Park, to adjacent railway lands to the north.

## Contributions to road

18.19 As well as the rail focus, funding the TCC delivers control and monitoring facilities that are part of a much wider exercise in working together between highway authorities, rail operators and Games functions. Together, during the Games, the TCC underpins the successful operation of the ORN and PRN. This intense and comprehensive coming together of various transport agencies is also predicted to deliver lasting legacy benefits of improved integration and better coordinated responses to adverse events.

18.20 Over £25m funding has been invested in designing and implementing permanent walking and cycling routes to all venues. The ODA committed to helping deliver long-term walking and cycling benefits by working with London local authorities and TfL's programmes such as the London Cycle Network+, Greenways programme and Strategic Walks. The infrastructure on its own will not be enough: people must use these facilities and change their travel behaviour. A significant east-west cycle route has been created between Finsbury Park and Victoria Park via Clissold Park. The London 2012 Active Travel Programme, focusing on the promotion of healthy and active means of travel, is being driven by London 2012.

18.21 Road-based bus and coach services have much to offer in terms of spectator choice, sustainability and access for 2012. The ODA has researched, planned and is funding a large 2012 Games coach network to the Olympic Park, ExCeL, Greenwich Park (30 July 2012 only), Ebbsfleet station and Weymouth and Portland.

This offers the potential to demonstrate the attractiveness of point-to-point travel to various market segments, particularly family groups. Increased mode share and better public perception post-2012 will be important for lasting benefits.

18.22 The ODA has specifically set up and led stakeholder groups within the taxi and road freight industry. A legacy of the taxi group arrangements may be an increased awareness of pooling arrangements to better utilise capacity between key traffic objectives. Similarly, the road freight group, formed with the support of the Freight Transport Association is already investigating and trialling more flexible delivery patterns including trials of night time deliveries in London.

### **Contributions to accessible transport**

18.23 The ODA launched its Accessible Transport Strategy in May 2008. By integrating the needs of disabled people into the transport planning process, the Games will leave a lasting legacy of access infrastructure improvements. The opportunity has also been taken to promote a greater awareness of disability issues and raise levels of passenger confidence in the accessibility of the public transport network.

### **Behavioural Change**

18.24 With the investment in public transport, this will improve customers' experiences after the Games and increase public transport use. The Active Travel Programme and improved walking and cycling routes will encourage people to walk and cycle after the Games. These both will help manage demand on the road network and increase more healthy active lifestyles after the Games.

## Appendix A

### Section 10(2) of the London Olympic Games and Paralympic Games Act 2006

'The plan shall, in particular, make provision for:

- (a) the construction of systems of, or facilities for transport;
- (b) the provision of transport:
  - (i) to and from London Olympic events, and
  - (ii) for other purposes connected with the London Olympic Games;
- (c) the creation and maintenance of the Olympic Route Network;
- (d) control of traffic during the London Olympic period;
- (e) control of facilities for transport during the London Olympic period;
- (f) road closures or restrictions during the London Olympic period;
- (g) the monitoring of traffic and facilities for transport during the London Olympic period;
- (h) contingency plans;
- (i) cooperation between the Authority and other persons; and
- (j) guidance from the Authority to local authorities in England in relation to implementation of the plan.

## Appendix B

### Code of Practice on Consultation

#### The Cabinet office – Code of Practice on Consultation – The Six Consultation Criteria

- 1.1 Consult widely throughout the process, allowing a minimum of 12 weeks for written consultation at least once during the development of the policy.
- 1.2 Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for the responses.
- 1.3 Ensure that your consultation is clear, concise and widely accessible.
- 1.4 Give feedback regarding the responses received and how the consultation process influenced the policy.
- 1.5 Monitor your department's effectiveness at consultation, including through the use of a designated consultation coordinator.
- 1.6 Ensure your consultation follows better regulation best practice, including carrying out a Regulatory Impact Assessment if appropriate.

## Appendix C

# Template franchise wording for the Olympic Games Clause and definition of Olympic services delivery plans

### 2012 Olympic Games (Clause 7.1)

#### 1. Acknowledgement

The parties acknowledge that:

- (a) a successful bid was submitted by the UK Government to the Olympic Committee for London to host the Olympic Games in 2012 (the Games);
- (b) as a key provider of public transport services into and out of London and the surrounding area, the Franchisee will have an important role to play during the Franchise Term in helping to make the staging of the Games successful.

#### 2. Franchisee Cooperation

The Franchisee shall, at its own cost, cooperate and consult as reasonably required with the London 2012 Bid Team, the Secretary of State, Transport for London, Network Rail, the British Transport Police and any other relevant party in connection with any arrangements directly or indirectly connected with the Games, including:

- (a) the provision of additional and/or specific railway passenger services;
- (b) the carrying out of necessary works to the network;
- (c) the provision of additional and/or specific security arrangements at stations at which the Passenger Services call and on the Passenger Services;
- (d) the provision of specific integrated ticketing in relation to the Passenger Services; and
- (e) advertising and marketing of the Games in relation to the Franchise Services.

#### 3. Entry into the Olympic Services Delivery Plan

3.1 During the Franchise Term the Secretary of State shall give the Franchisee reasonable notice of:

- (a) his intention to enter into a plan for the implementation of:
  - (i) any of all of the matters referred to in paragraph 2; and
  - (ii) any other matter relevant to the award, planning or staging of the Games, (the Olympic Services Delivery Plan); and
- (b) the terms of the Olympic Services Delivery Plan he wishes to enter into.

3.2 The Franchisee may make representations to the Secretary of State in respect of the Secretary of State's proposed terms of the Olympic Services Delivery Plan.

3.3 If the Secretary of State and the Franchisee cannot agree on the terms of the Olympic Services Delivery Plan the Secretary of State shall reasonably determine such terms.

3.4 At a date to be notified to the Franchisee by the Secretary of State, the Secretary of State and the Franchisee shall enter into the Olympic Services Delivery Plan.

#### 4. Financial Effects of the Olympic Services Delivery Plan

For the purpose of paragraph (g) of the definition of Change, the cost and revenue effects of the Franchisee's implementation of the Olympic Services Delivery Plan shall be a Change.

#### 5. Implementation of the Olympic Services Delivery Plan

The Franchisee shall implement the Olympic Services Delivery Plan in accordance with its terms.

## Appendix D

### Glossary

Term	Explanation
ATAG	Active Travel Advisory Group – The main stakeholder group set up to provide advice and scrutiny on walking and cycling issues for the Games.
BAA	British Airports Authority – The major airport company that owns and operates seven UK airports (Aberdeen, Edinburgh, Glasgow, London Heathrow, London Gatwick, London Stansted, and Southampton).
BOA	British Olympic Association – Britain’s National Olympic Committee, whose mission is to maximise the potential of Team GB athletes while developing the Olympic Movement in the UK.
CAS	Court of Arbitration for Sport – An arbitration body set up to settle disputes related to sports.
DCMS	Department for Culture Media and Sport – The Government department responsible for Government policy on the arts, sport, the National Lottery, tourism, libraries, museums and galleries, broadcasting, creative industries including film and the music industry, press freedom and regulation, licensing, gambling and the historic environment. Lead Government department for the delivery of the Games.
DfT	Department for Transport – The Government department responsible for the delivery of a reliable, safe and secure national transport system.
DLR	Docklands Light Railway – The light rail public transport network serving the redeveloped Docklands area of east London operated by Transport for London.
ExCeL	Exhibition Centre for London – Exhibition and conference centre at Royal Victoria Dock, east London.
GLA	Greater London Authority – Citywide government for London, headed by the Mayor of London and the elected London Assembly.
GOE	Government Olympic Executive – part of DCMS – the lead government department making sure that the Games bring the widest possible benefit to the whole of the UK.
HA	Highways Agency – An executive Agency of the Department for Transport (DfT), responsible for operating, maintaining and improving the strategic road network in England.
HS1	High Speed 1 – Formerly known as the Channel Tunnel Rail Link (CTRL) – The high speed rail line between London St. Pancras International Station and the Channel Tunnel.
IBC	International Broadcast Centre – The radio and television broadcasting centre for the Games, which receives and distributes the television signals generated at the venues.
IF	International Federations – The international governing bodies for individual sports, for example, FIFA for football.
IOC	International Olympic Committee – An international non-governmental, non-profit organisation whose mission is to lead the Olympic Movement and promote the notion of Olympism.
IPC	International Paralympic Committee – The international governing body of sports for athletes with a disability.
LB	London Borough – A local government district, 32 of which, along with the City of London, make up Greater London.
LCR	London & Continental Railways – The company selected by the Government to build and operate the High Speed 1, and to own and operate the UK arm of the Eurostar international train service.
LDA	London Development Authority
LEZ	Low Emission Zone – A Low Emission Zone aims to reduce air pollution by discouraging the most polluting vehicles from driving into it.

Term	Explanation
LOCOG	The London Organising Committee of the Olympic Games and Paralympic Games – Responsible for preparing and staging the 2012 Games.
London 2012	An umbrella name for the London 2012 Organising Committee and the Olympic Delivery Authority.
London 2012 Ltd	The company set up to bid for the Games.
London Councils	A think-tank and lobbying organisation that promotes the interests of London's 33 Councils. It also runs a number of pan-London services.
LRS	London River Services Ltd – The agency that licenses passenger services using Transport for London's eight piers.
LTCC	London Traffic Control Centre – A central control point, staffed by the Metropolitan Police and Transport for London, to monitor and manage the highway network conditions in London.
LTGDC	London Thames Gateway Development Corporation – The key government agency responsible for delivering social and economic growth to transform the London Thames Gateway, part of Europe's largest regeneration project.
LUL (LU)	London Underground Ltd – The company that runs the London Underground network, a subsidiary of Transport for London.
MOC	Main Operations Centre – The central Command, Control and Communications Centre to direct Games operations. It provides a centralised information, coordination, reporting and decision-making system to enable the effective conduct of the Games.
MPC	Main Press Centre – The central workplace for the accredited written and photographic press at the Games, providing 24-hour support and facilities.
NDPB	Non-Departmental Public Body.
NOC	National Olympic Committee – The IOC-recognised organisations which develop and protect the Olympic Movement in their respective countries in accordance with the Olympic Charter.
NPC	National Paralympic Committee – The IPC-recognised national coordinating or umbrella organisations of sport for athletes with disabilities, which propagate the development and safeguarding of the Paralympic Movement and sports for disabled people.
NR	Network Rail - The company that owns and operates Britain's rail infrastructure, including tracks, signalling, bridges, tunnels, level crossings, viaducts and 17 key stations.
OBS	Olympic Broadcasting Services – Host broadcaster for the Games, responsible for providing coverage of every competition to international television and radio rights holders.
ODA	Olympic Delivery Authority – The public body charged with delivering the construction of the key venues, facilities and infrastructure to stage the London 2012 Games.
Olympic Board	Comprises the Olympics Minister, the Mayor of London and the Chairs of LOCOG and the British Olympic Association.
Olympic Family	Comprises athletes and team officials, technical officials, press, broadcast and marketing partners.
ORN	Olympic Route Network – A network of roads linking competition venues and key non-competition venues, such as accommodation and gateway arrival points into the UK.
ORR	Office of Rail Regulation – Economic and Health and Safety regulator for the British railway industry.
OSD	Olympic Security Directorate – Multi-agency body, led by the Metropolitan Police Service responsible for coordinating all security, safety and resilience activities across the UK in relation to the London 2012 Games.
Paralympic Family	Comprises athletes and team officials, technical officials, press, broadcast and marketing partners.

Term	Explanation
PSA	A Pedestrian Screening Area (PSA) is the point at which all personnel entering into the secure perimeter of a venue are screened. Personnel will pass through an airport-style security check where both the person and any bags or equipment they are carrying will be checked.
PPP	Public Private Partnership – A system in which a Government service or private business venture is funded and operated through a partnership of Government and one or more private sector companies.
RSSB	The Rail Safety and Standards Board – A not-for-profit company operating as a centre of excellence for all matters relating to railway safety.
SCD	Stratford City Development – A major new town centre development centred on the Stratford Rail Lands in Newham, east London, and adjacent to the Olympic Park. It will comprise the creation of thousands of new jobs, as well as 4,500 new homes and the new Stratford International Station.
TA	Transport Assessment – A document prepared for submission with a planning application for a development which is likely to have significant transport implications.
TCC	Transport Coordination Centre – The operations centre to be established within the London Traffic Control Centre, which will have critical links to all functions involved in the delivery of Games transport.
TfL	Transport for London – A functional body of the Greater London Authority responsible for the capital's transport system.
TLRN	Transport for London Road Network – The main roads within Greater London that are managed by Transport for London.
TOCs	Train Operating Companies – The companies that run rail passenger services.
TRANSEC	TRANSEC is the Transport Security and Contingencies Directorate at the Department for Transport.
TWA	Transport and Works Act – The Transport and Works Act 1992 can give powers to construct and operate railways, tramways and other guided transport schemes, and works which interfere with navigational rights.
VPC	Vehicle Permit Check Points – the entry and approval point for permitted vehicles to enter a Games venue.
VSA	A Vehicle Screening Area is the point at which Security screen a vehicle and its contents prior to its entry into the secure perimeter of the venue to ensure that both the vehicle and its contents are safe.
WADA	World Anti-Doping Agency – Promotes, coordinates and monitors the international fight against doping in sports.

## Appendix E London 2012 Olympic Games pictograms

	Aquatics – Diving		Cycling – Road		Modern Pentathlon
	Aquatics – Swimming		Cycling – Track		Rowing
	Aquatics – Synchronised Swimming		Equestrian – Dressage		Sailing
	Aquatics – Water Polo		Equestrian – Eventing		Shooting
	Archery		Equestrian – Jumping		Table Tennis
	Athletics		Fencing		Taekwondo
	Badminton		Football		Tennis
	Basketball		Gymnastics – Artistic		Triathlon
	Boxing		Gymnastics – Rhythmic		Volleyball
	Canoe Slalom		Gymnastics – Trampoline		Volleyball – Beach
	Canoe Sprint		Handball		Weightlifting
	Cycling – BMX		Hockey		Wrestling
	Cycling – Mountain Bike		Judo		

# Appendix E

## London 2012 Paralympic Games pictograms



Paralympic Archery



Paralympic Shooting



Paralympic Athletics



Paralympic Swimming



Boccia



Paralympic Table Tennis



Paralympic Cycling – Road



Volleyball (sitting)



Paralympic Cycling – Track



Wheelchair Basketball



Paralympic Equestrian



Wheelchair Fencing



Football 5-a-side



Wheelchair Rugby



Football 7-a-side



Wheelchair Tennis



Goalball



Paralympic Judo



Powerlifting



Paralympic Rowing



Paralympic Sailing

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