

## 3 Infrastructure Works

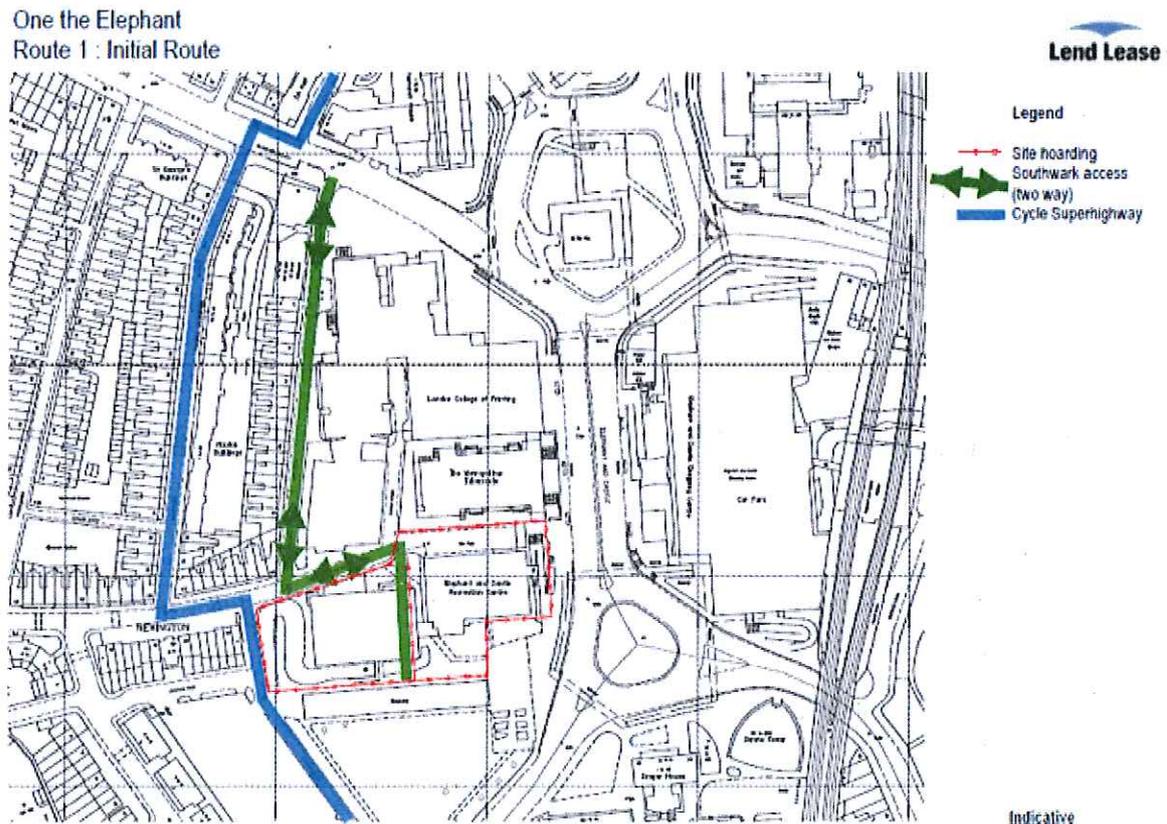
### 3.1 Utility Infrastructure Works

Separate soil / waste and rainwater drainage shall be provided to connect to the existing below ground drainage infrastructure.

### 3.2 Road Diversions

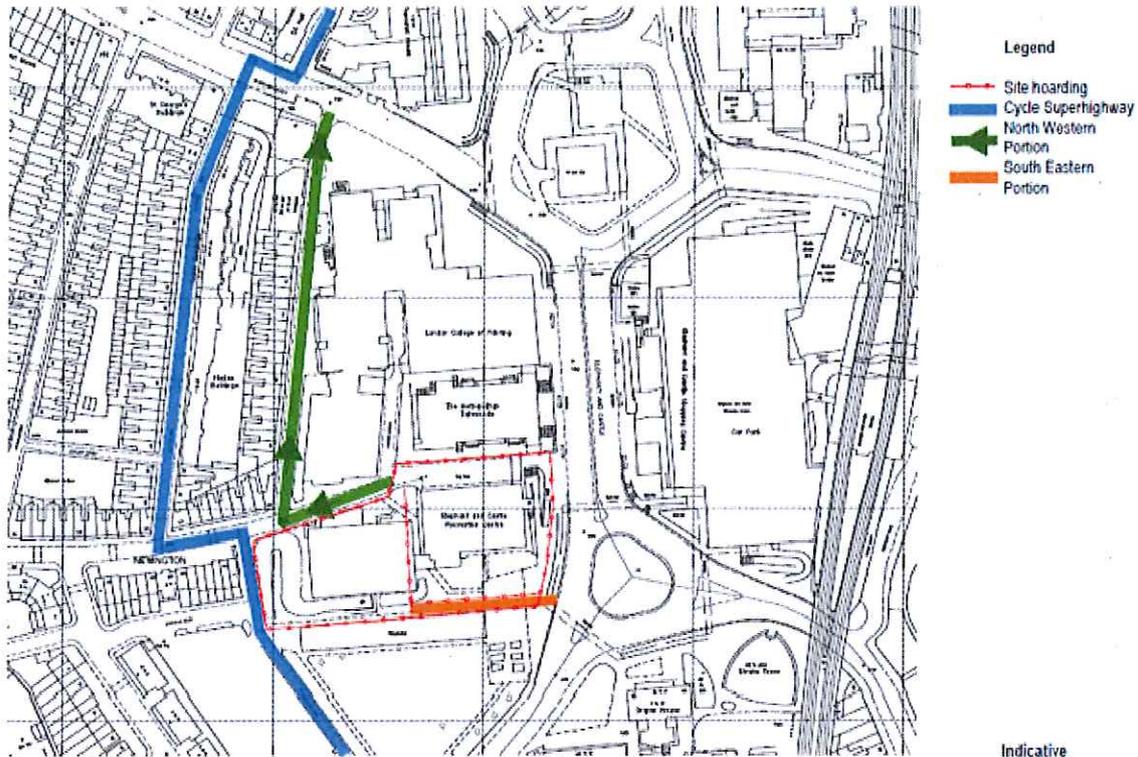
The construction traffic routes that will facilitate the delivery of goods and material to and from the Proposed Development site have been agreed in principle with Southwark Council and TfL with final approval expected by April 2013.

During the enabling works, Lend Lease will begin formation of the shared haul road and entrance from Newington Butts. Vehicle quantities during this period will be minimal due to the minor works that are to be undertaken. Access during this period, can only be gained from the North West entrance at Brook Drive. In order to avoid vehicles crossing the CS7 cycle route, traffic will arrive at site via Oswin Street, exiting by the same route. This is detailed on the below diagram.



During the main development construction work, vehicle movements will be restricted to accessing site via Newington Butts only, and egressing site via the North West corner at Brook Drive, back onto the arterial routes via Oswin Street. This ensures vehicles only impact on a minimal amount of local residents. There is to be no crossing of the CS7 cycle route by any construction traffic. This route will also be shared by Southwark Council, in their construction of the adjoining leisure centre. This route is noted for clarity in the below diagram.

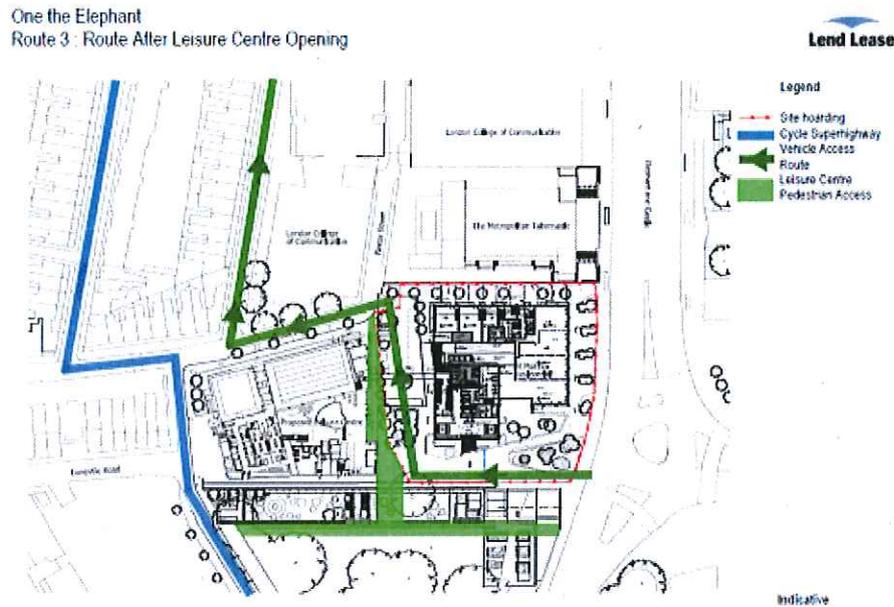
One the Elephant  
Route 2 : Shared Route



The construction route has been discussed with TfL and Southwark Council. Construction vehicles will follow the route proposed below;

Vehicles will arrive on the A3 northbound carriage turning left into site from Elephant & Castle / Newington Butts (A3). They will then undertake their delivery on site, exit via Brook Drive before travelling north along Oswin Street. This will bypass many of the local residents and the CS7 cycle route on Churchyard Row / Elliots Row. This is reflected above.

During the development works, the new E&C Leisure Centre will be completed and opened to the public. The below diagram shows the traffic routes for this period through to the completion of the development.



Also shown above are the spaces and routes that will be made available for pedestrian access to the opened leisure centre.

### 3.3 Utilities Diversion

Utilities diversions will be undertaken to provide an unencumbered Site. It is the aspiration of Lend Lease to minimise disruption to existing services and highways where possible but this will be dependent upon discussions with the statutory providers. Lend lease is responsible for the diversion of existing utility infrastructure within the Site boundary to the point of connection that needs to be diverted due to any new landscape planting and required tree root zones. Lend Lease will stipulate new routes for on-Site distribution of new utility services. Where existing utility services have been made redundant or stripped out by 4Futures/demolition contractor, this information will need to be indicated on a survey drawing which is to be issued to Lend Lease.

### 3.4 Public realm

Public Realm works include:

- Park construction outside the red line application boundary as part of the developer contributions (Section 106).
- Tree Management. Where trees external to the 'One the Elephant' Site perimeter are identified for retention, construction work would be undertaken in accordance with relevant guidelines in BS 5837:2005 ('Trees in relation to Construction - recommendations') to ensure that any construction within close proximity of these trees is undertaken without significantly impacting on them. Retained trees would also be adequately protected from damage throughout the development process
- SUDS and water features/ponds;
- Play spaces; and
- Hard and soft landscaping.
- Completed sections of the public realm will be protected with fencing to separate completed works from on-going construction work areas.

## 4 Construction Traffic & Access to Site

### 4.1 Construction Traffic

Lend Lease have committed to ensuring that all HGV class drivers attending site, have been booked on to attend the FORS Safer Urban Driving training course, working with Southwark Council and Transport for London to create an effective programme for training. Lend Lease will also ensure that FORS accreditation is a key deliverable for all freight haulage companies who are expected to deliver to site.

Lend Lease intends to implement a standard of construction traffic safety in line with the 'Gold' standard currently being benchmarked by Crossrail and Suppliers.

<http://www.crossrail.co.uk/news/articles/crossrail-implements-lorry-requirements-to-improve-cycle-safety>

Risk assessments of the local networks will also be undertaken and where required, Fresnel lenses and blind spot sensors will be incorporated into the traffic management plan.

### 4.2 Construction Routes & Access : Greater London

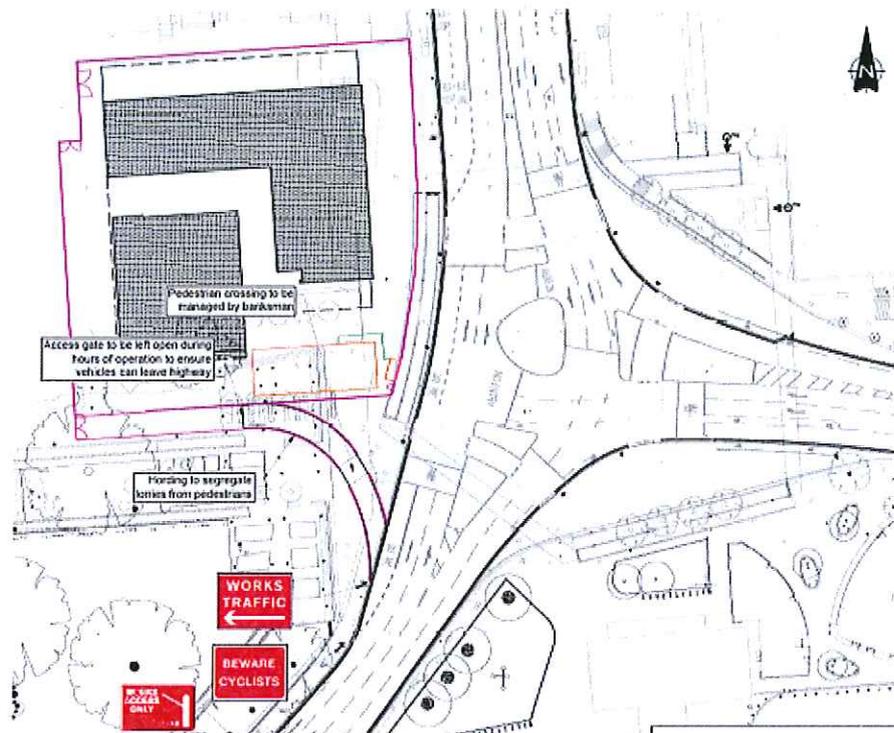
Elephant & castle and the surrounding area is recognised as a high volume traffic area which at times, can greatly influence the effects of traffic in other areas of London. In order to ensure traffic within London is not widely affected by the development, we have included in Appendix C, guidance for all hauliers on the routes they should take for deliveries and collections from the development.

Lend Lease will also ensure that suppliers provide a means of checking the routes which are used by their HGV drivers to provide comfort to all parties that every effort is being made to ensure local and wider approach routes remain minimally effected by the work.

### 4.3 Construction Routes & Access : Local Area

Due to the positioning of the Site and restricted access, construction traffic routes will be agreed with Southwark Council, TfL and other necessary authorities for the works, alongside consultation with local residents. Construction vehicle movements would be restricted to the main arterial routes where possible. Local vehicle routes are shown in section 3.2.

The construction traffic routes that will facilitate the delivery of goods and material to and from the Proposed Development site have been agreed in principle with Southwark Council and TfL with final approval awaited. This is shown below.



All vehicles will turn within the Site in order to minimise disruption to other road users. A plan showing the designated construction route is illustrated in the Travel Plan

Assuming that the construction programme commences in mid-2013, it is estimated that there would be a peak in HGV trips coinciding with the busiest periods of construction during the summer of 2013.

On the basis of 5½ working days per week and a 10-hour working day, five to eight hourly HGV construction trips may be expected within the peak period. It should be noted that these peak construction periods are not typical of the majority of the construction programme. Therefore, for much of the construction programme the number of vehicles would be approximately half that in the peak periods.

Movements of large or abnormal loads would be addressed in advance with the relevant highway authorities and the Police in order to ensure compliance with regulations and advance notification for local residents. Whilst no permanent or long-term road closures outside of the Site are envisaged, should this situation change consent would be obtained from Southwark Council or TfL (as appropriate). Furthermore, prior notices regarding planned closures and diversions of roads would be given to the Metropolitan Police, the London Fire and Emergency Planning Authority (LFEPA) and other emergency services.

The Site is located close to the Elephant and Castle rail and underground stations and a number of London bus services. Given this proximity to public transport services, it is envisaged that the majority of construction personnel would travel to Site by public transport.

Provision would be made, to ensure that the unloading of vehicles can be carried out on-Site rather than on the adjacent roads.

In addition, the passage of vehicular traffic to and from the Site would adhere to the environmental procedures contained within the Environmental Management Plans and applicable to all contractors involved in the Development.

Deliveries to site will be managed by a strict delivery booking system, compulsory for all sub-contractors. Where practical peak and large deliveries will be co-ordinated with those of the Leisure Centre development

#### 4.4 Offloading and Storage Areas

Vehicles will be directed to their designated delivery point or holding/storage areas, which will be marshalled by logistics personnel, ensuring that only authorised personnel are given access.

All deliveries will be notified in advance to the contractor's logistics team. Access slots will be allocated. No delivery vehicle will, as far as it is possible to enforce, leave the Site empty. A "take-back" policy will be encouraged whereby all return vehicles will take "associated waste/packaging" with them.

#### 4.5 Personnel and Vehicle Segregation

All pedestrian routes will be clearly defined utilising temporary fencing and pedestrian route signage where necessary. Pedestrian crossover routes will have appropriate warning signs displayed, e.g. give-way signs, vehicles crossing etc.

All Site operatives will be given a specific Site induction, and briefed with reference to the use of designated pedestrian access ways and crossover points.

#### 4.6 Temporary Road Closures

No long-term road closures are envisaged. However, short-term closures may be required in order to establish and remove cranes or to deliver items of plant and equipment. Notices regarding any planned closures and diversions of either roads or footpaths shall be given by the principle contractor to Southwark Council, TfL and London Buses, the police, the fire brigade and other emergency services.

In order to further minimise the likelihood of congestion, strict monitoring and control of vehicles entering, exiting and travelling through the site would be maintained. This would include:

- The setting of specific delivery and collection times;
- Consolidation of deliveries wherever possible;
- A system of 'just in time' deliveries; and
- Pedestrian access around the site perimeter will be safely maintained.

With regard to on site and highway safety, Lend Lease is committed to operating incident and injury free (IIF) and is committed to realising this wherever Lend Lease has a presence.

#### 4.7 Pedestrian Access Post-ECLC Completion

Prior to the completion of the Development, Southwark Council will have completed the proposed new leisure centre, opening it for business six weeks later. Once open for business, regular access to the leisure centre will be required by the members of the public.

It has been agreed with Southwark Council that members of the public accessing the leisure centre will do so via the adjacent St Mary's Churchyard, accessing the leisure centre through the playground separating the leisure centre from the Churchyard. No members of the public will be permitted to access the leisure centre via any Lend Lease construction areas. Lend lease will assist Southwark Council in making ready the shared surface area, such that it is safe for non-construction personnel. This is shown further in section 3.2.

Access for fire tenders to attend the Leisure Centre in the event of an emergency will also be provided by Lend Lease in conjunction with Southwark Council.