

Royal Oak

Crossrail Proposals (1)



Crossrail's tunnels through central London would surface near Royal Oak. The tracks would rise to join existing tracks at ground level before continuing west.

A temporary worksite is proposed. It would be wholly within the railway corridor and enclosed by hoardings and safety barriers during the construction period. A cut-and-cover structure between Royal Oak portal and the ventilation/escape shaft further to the east (where the bored tunnels would begin) would allow tunnel linings to be delivered by rail rather than road.

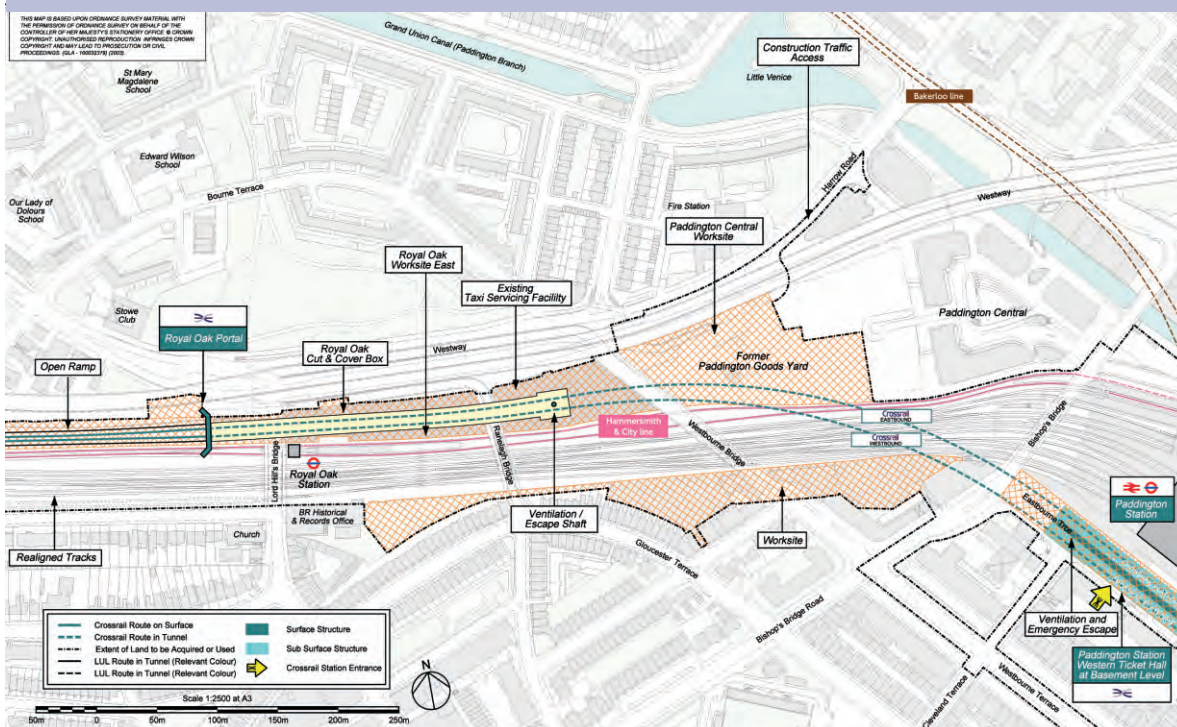


Proposed



Existing

Royal Oak Station



Royal Oak Portal

Crossrail Proposals (2)



Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that lorries would use the existing ramp off the Great Western Road (A420T).

A new access road would be constructed to the Paddington Central development to enable the Westbourne Bridge shaft to be maintained. Hard standing would be located between the ventilation terminal and the shaft to provide parking space for maintenance and emergency vehicles.

Westbourne Park Reversing Facility

At the start of Crossrail services, westbound trains would terminate at Paddington.

As there is insufficient space to provide reversing facilities at Paddington, trains would continue empty to Westbourne Park where a purpose built reversing facility is proposed.

During the construction of the reversing facility, provision would be made for future through services towards Heathrow and Maidenhead.

Bus Garage and Taxi Area

The existing bus storage and washing facilities would need to be reconfigured as a result of the Crossrail proposals. The existing buildings on the taxi area would be demolished to make way for the portal worksite.

Royal Oak



Royal Oak

Crossrail Proposals (3)



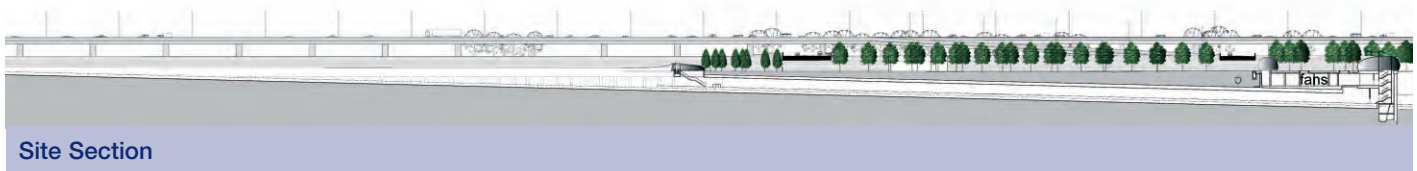
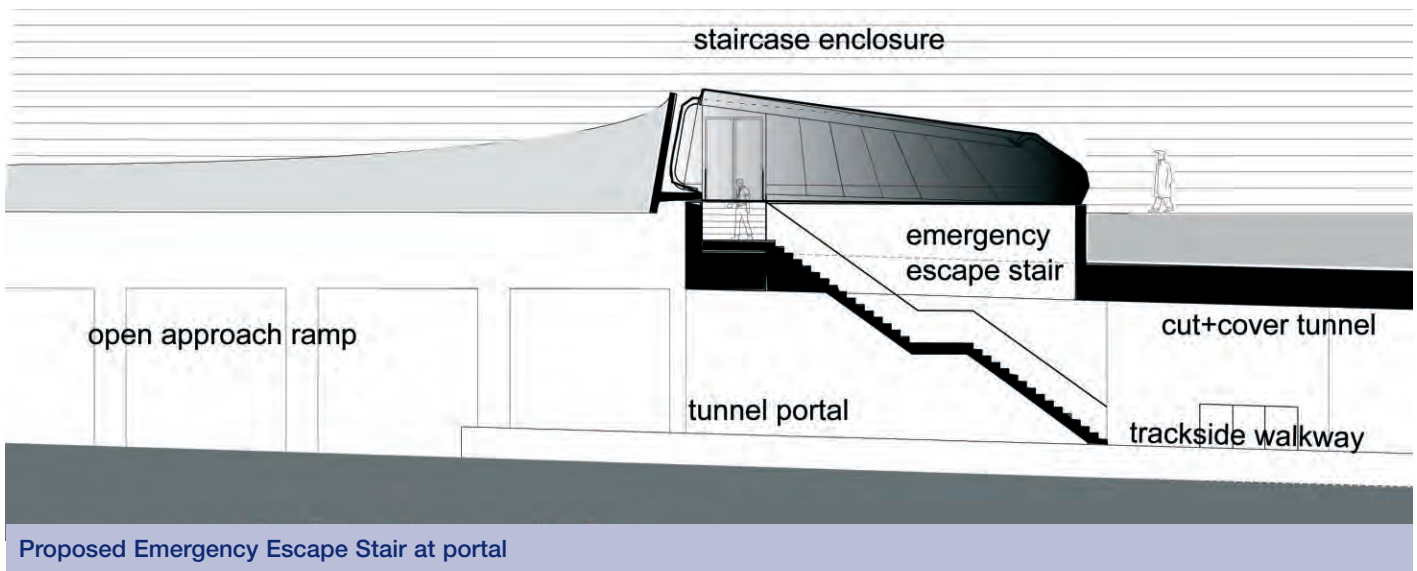
The Royal Oak/Westbourne Bridge Portal would consist of three elements.

- An open cut would be built. It would incorporate a ramp that would take the Crossrail tracks down from ground level to the tunnel portal
- A 270m long cut and cover box section
- A shaft at the tunnel eye would be used as a working shaft during construction of the running tunnels

On completion of the tunnelling, the shaft would be fitted out as a ventilation and emergency intervention shaft in accordance with London Fire and Emergency Planning Authority requirements.

Emergency escape stairs would also be provided at the tunnel portal.

When tunnel driving commences, it is anticipated that the excavated spoil would be brought out of the shaft at the tunnel eye by hoist and transferred from a spoil stockpile by road or possibly conveyor to the railhead to be loaded onto trains for onward disposal.



Royal Oak Portal

Crossrail Proposals (4)



Crossrail’s shallow cut-and-cover tunnels would occupy the space between Lord Hills Bridge and Ranelagh Bridge north of Royal Oak Station. A road to the escape stairs at the tunnel portal would provide access to this space. Following completion of work the area would be landscaped.

The surface structure associated with the ventilation outlet and the emergency access stairs would be constructed in the area between Ranelagh Bridge and Westbourne Bridge and would be accessed from Harrow Road under Westbourne Bridge. The proposed lightweight metal buildings are designed as sculptural objects to be seen from passing trains on the approach to Paddington Station and from overlooking properties to the south.



Proposed Site



Existing Site



Existing Site



Cross Section



Proposed Changes



Section of Proposed Portal

Paddington

Crossrail Proposals



Building Crossrail Paddington Station

Paddington Station is a Grade I listed building. The wall and the railings on Eastbourne Terrace and the departures road canopy (which form part of the listed structure) would be removed for construction of the Crossrail Ticket Hall. The railings would be carefully dismantled and Crossrail would examine how the railings could be reused. The canopy would be dismantled and re-erected.

Crossrail recognise the architectural and historic importance of the existing Main line station and would propose a design that is appropriate to the location.

The main worksite would be on Eastbourne Terrace, including the departures road. A box structure for the station would be excavated from within this worksite.

Site offices, storage and delivery areas would be established within the car park behind the Great Western Railway parcels office, off Bishops Bridge Road. Smaller worksites would be located during the construction period at Praed Street and on the London Underground District and Circle line platforms.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that two-way traffic and access to buildings in Eastbourne Terrace would be maintained throughout construction. Eastbourne Terrace would be reduced to one lane of traffic in each direction and subject to a number of phased diversions. Praed Street would have short-term closures at its intersection with Eastbourne Terrace. Vehicle access to the properties on the southern side of Eastbourne Terrace would be from Eastbourne Mews or Chilworth Mews.

On completion of the work, new pedestrian links would be provided between the existing Main line station, across Eastbourne Terrace, through to the "light spine". The departures road would be reinstated, accommodating taxis and general traffic as required by the long term proposals for the area.

Taxis and Buses

To enable the station to be built, it would be necessary to temporarily relocate taxis currently using Eastbourne Terrace Departures Road to the site of a parcels depot to the north of the station. Buses would need to be relocated during the period of the Crossrail works. Crossrail would continue to develop proposals in consultation with Westminster City Council, Network Rail, the local community and other stakeholders.

Photography by Andrew Putler



Northwest view of Paddington Station – Architect's Impression

Paddington

Proposed Ticket Halls



The Crossrail station would be located in a large box beneath Eastbourne Terrace. It would contain two ticket halls with links to the existing station. A predominantly glazed “light spine” would run the length of the box allowing natural light into the station. Escalators and lifts would provide access to the Crossrail platforms.

Interchange with the Bakerloo line would be provided by a new passageway between the Crossrail and Bakerloo line platforms. Access to this passage would be provided by a staircase at the Bakerloo line end.

Interchange with the District & Circle line would be provided from the eastern end of the Crossrail station by a short passage at basement level. This passage would provide level access to the northbound District & Circle lines, with access to the southbound District and Circle lines from a new footbridge and lifts.

Provision would be made to enable future interchange with the Hammersmith and City line to be provided from the Crossrail western ticket hall.

Ventilation would be incorporated within the station box at both ends of Eastbourne Terrace. The station ventilation would provide draught relief and assist in maintaining passenger comfort within the station.

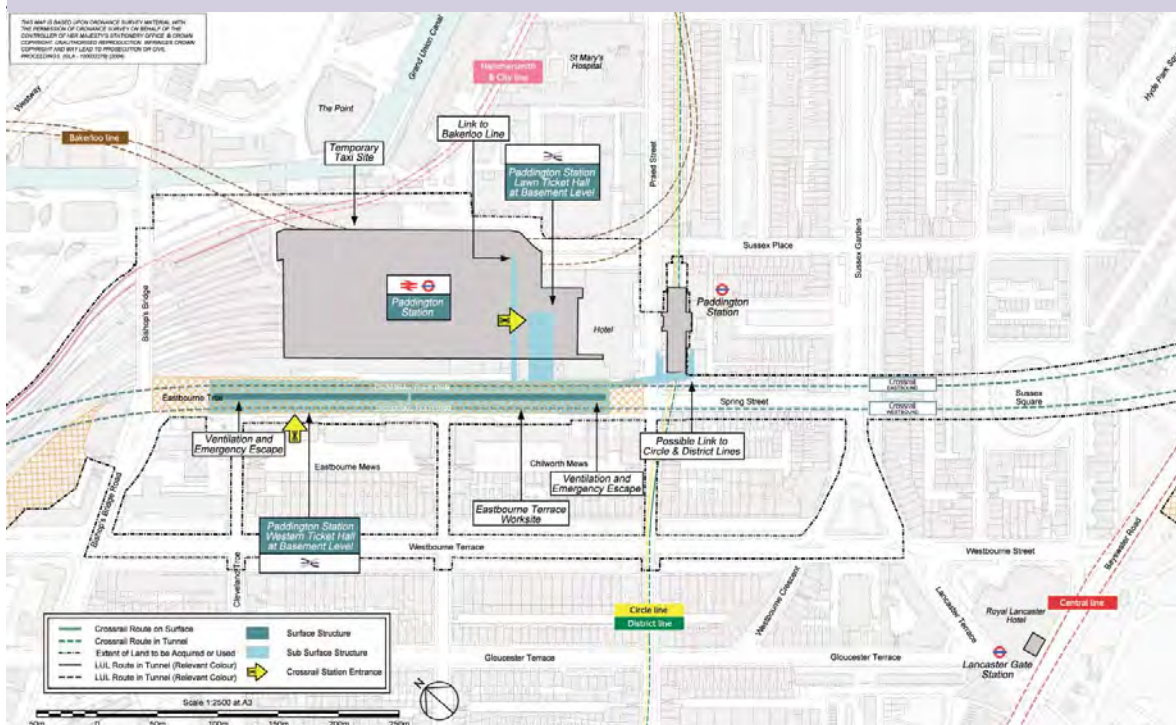


Architect's Impression of Proposed Interior



Architect's Impression Looking North West from Praed Street

Proposed Ticket Halls at Paddington Station



Hyde Park Shaft

Crossrail Proposals



To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

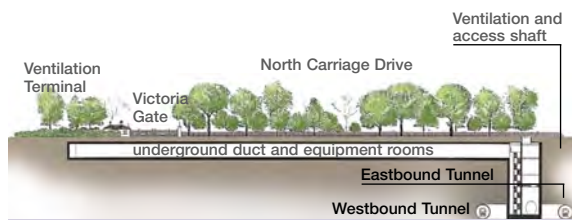
Hyde Park Shaft would be used for ventilation and emergency intervention.

The shaft would be located between the Crossrail tunnels where they pass beneath North Carriage Drive. This location would reduce disturbance to the park and the nearby residential neighbourhood.

The shaft would be connected to a ventilation outlet by a duct under North Carriage Drive. The ventilation outlet would be at ground level in a duct behind the Pet Cemetery at Victoria Lodge. It would be protected by a grill, fence and shallow ditch to prevent unauthorised access.

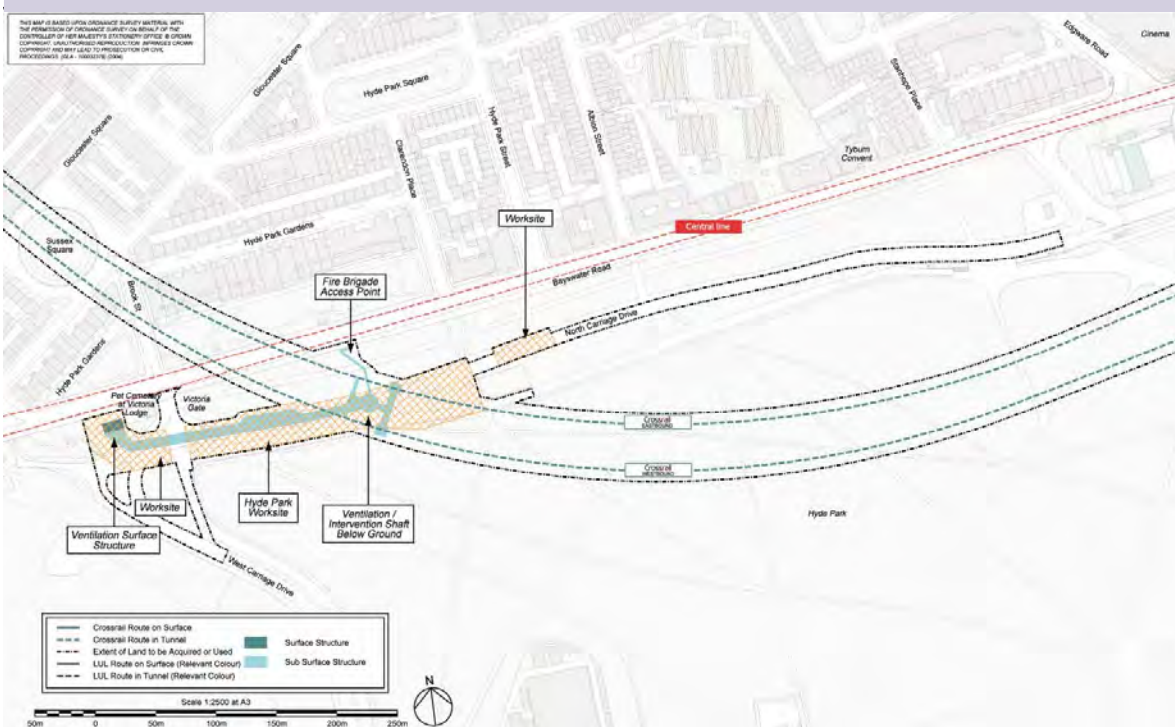


Existing Site



Proposed Duct and Shaft Section Looking North

Proposed Hyde Park Shaft



Hyde Park Shaft

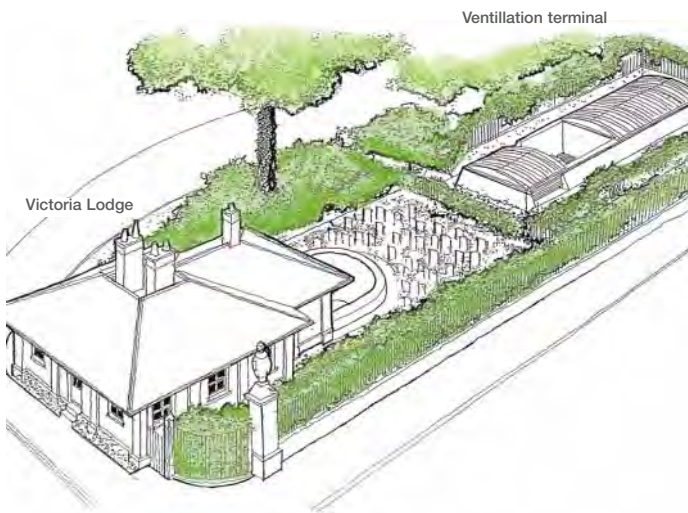
Proposed Shaft Design (1)



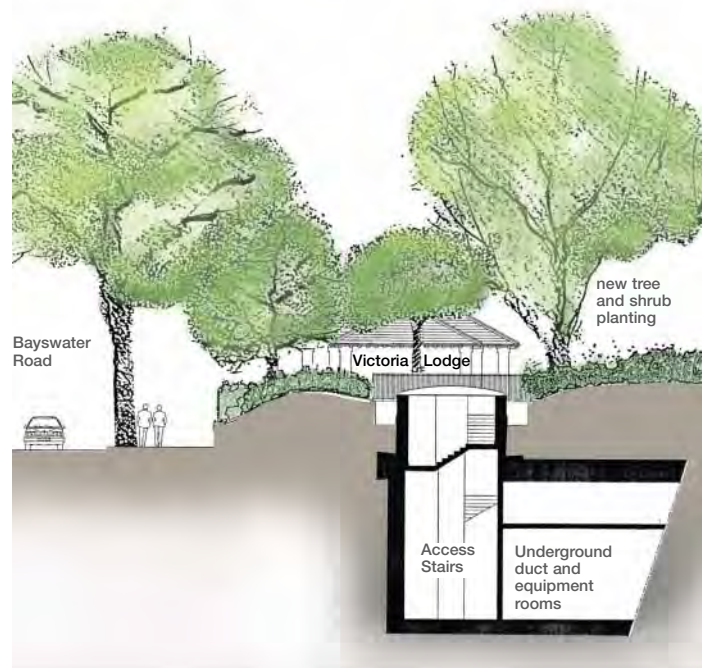
An access hatch beside Bayswater Road and a short subway would give 24-hour access for emergency services to the staircase leading to the tunnels. The hatch would be behind the railings on Bayswater Road. A gate with a Fire Brigade lock would give access to the hatch.

It would be necessary for the trees in the immediate vicinity of the shaft site to be removed. The reinstatement of landscaping and trees affected by the proposals would be discussed with the Royal Parks.

The shaft would be within the Royal Park, designated as a Grade I Historic Park and Garden and a Site of Metropolitan Nature Conservation Importance, and in the vicinity of the listed Gate Lodge buildings. The shaft design has sought to limit any intrusion upon the landscape.



Artist's Impression – Proposed Hyde Park Shaft



Proposed Hyde Park Shaft Section



Proposed Hyde Park Shaft Section

Hyde Park Shaft

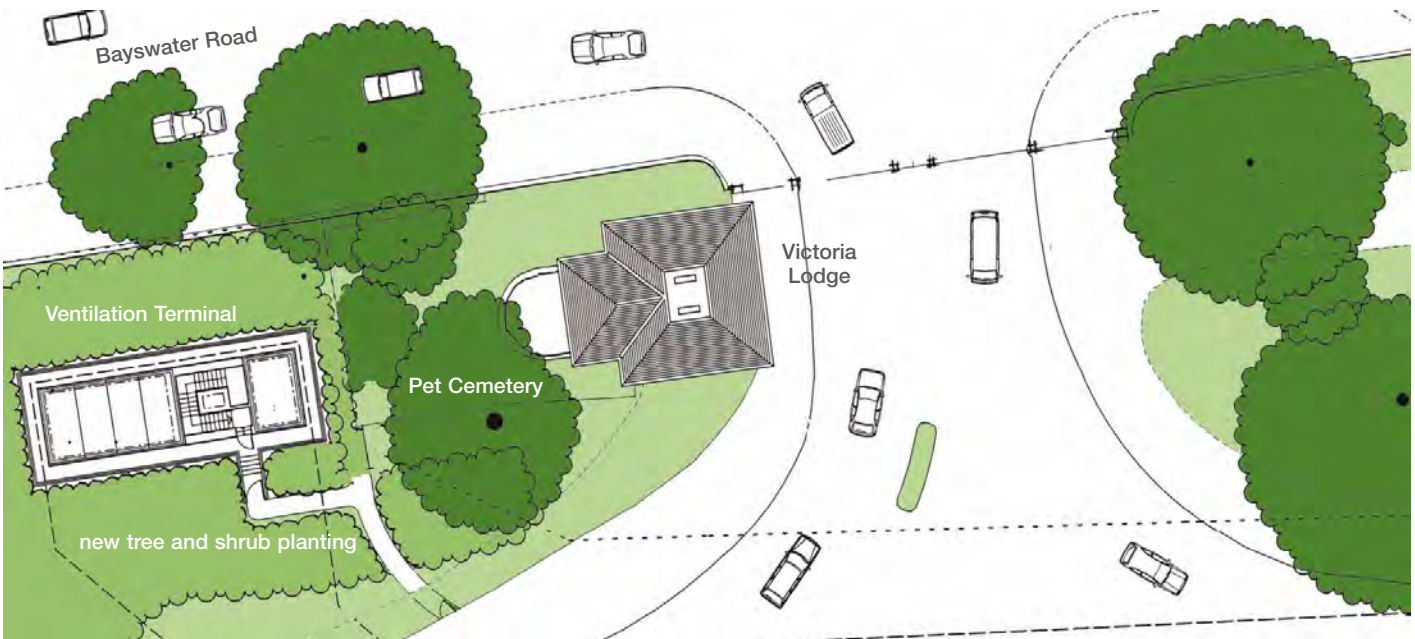
Proposed Shaft Design (2)



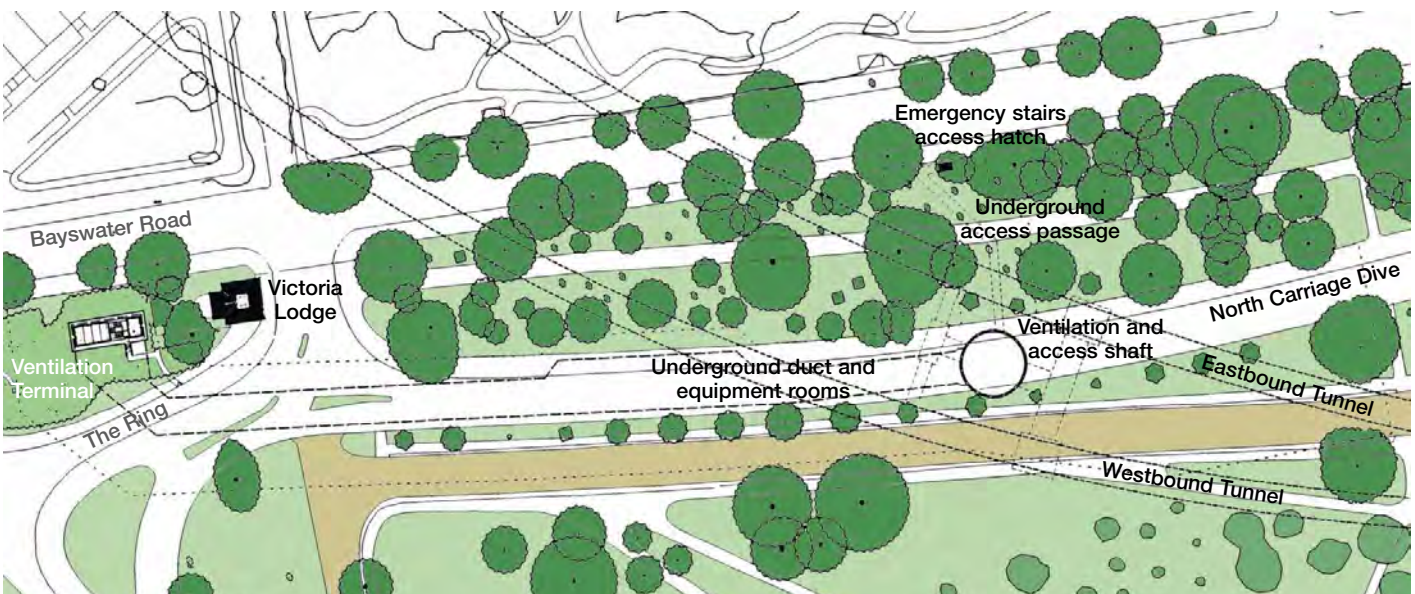
Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that part of North Carriage Drive and North Ride would be closed and used for lorry holding during the works.

An alternative route for horse riders currently using North Ride and alternative safe pedestrian routes would be discussed with the Royal Parks.



Detailed Site Plan at Victoria Lodge



Plan View of Proposed Shaft

Park Lane Shaft

Crossrail Proposals



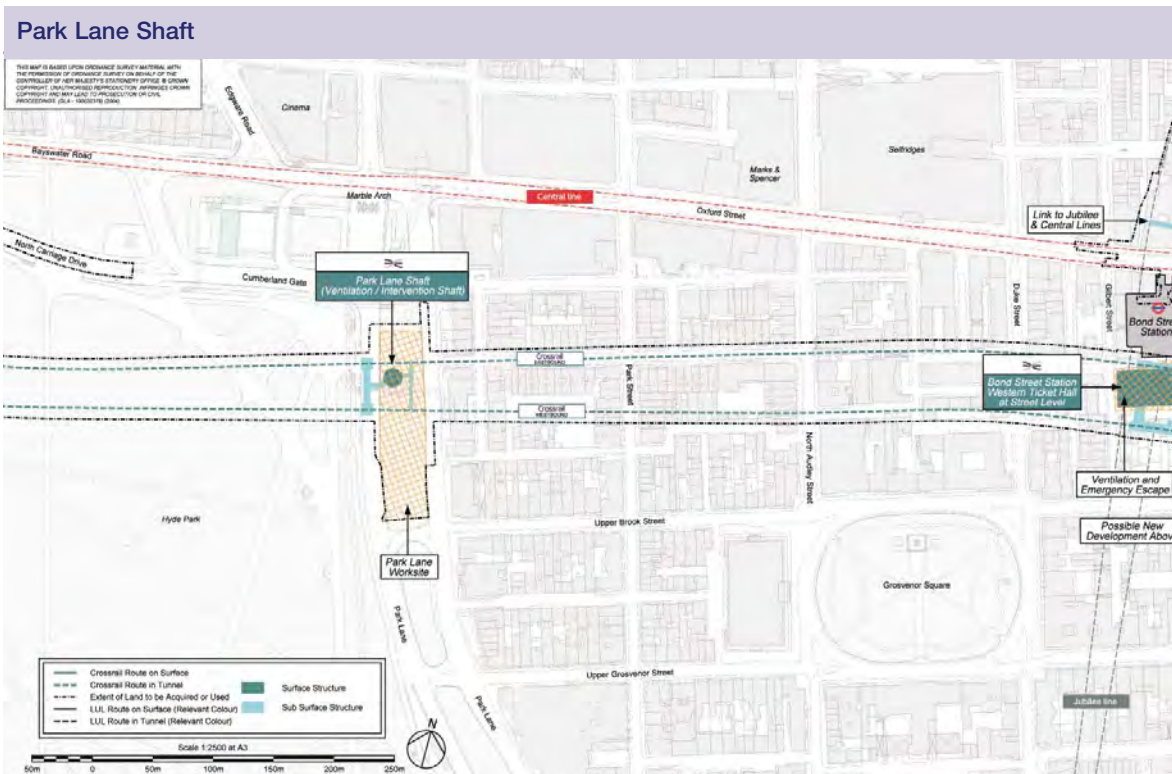
To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

The shaft would be located in the central reservation of Park Lane and would be used for ventilation and emergency intervention.

Operating equipment would be concealed in basement rooms beneath the ventilation terminal. The basement is planned to avoid higher quality trees, which would be protected during construction. The new landscape would include a hard standing area, new benches and additional planting.



Existing Site



Park Lane Shaft

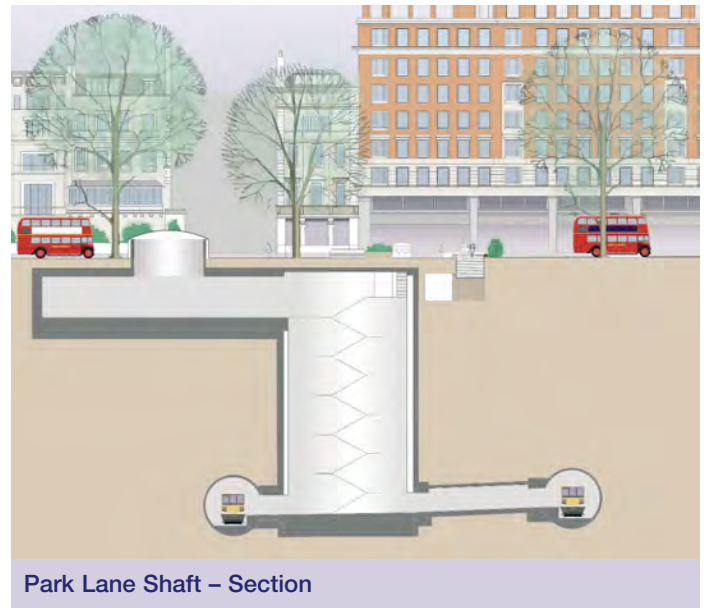
Proposed Shaft Design



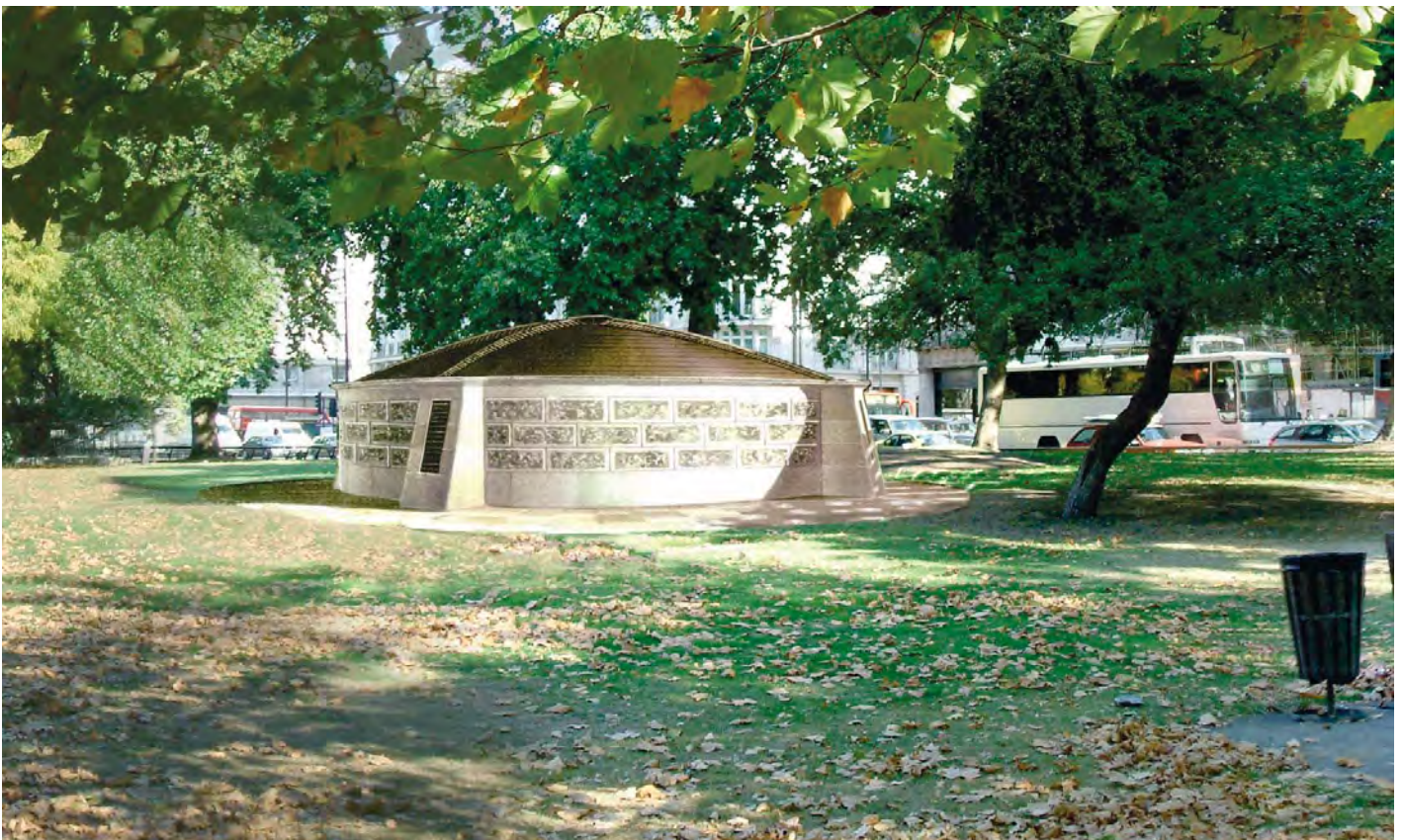
The staircase and ventilation outlet is proposed to be stone clad to match buildings in the surrounding area. Air intake and outlet would be through a bronze grilled roof. It is possible that one tree could be lost as a result of the proposals. Crossrail would consult the Royal Parks on any appropriate landscaping and replanting.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that during construction work sites would be located in the central reservation. Following construction, vehicular access for Crossrail maintenance would be from the southbound carriageway.



Park Lane Shaft – Section



Proposed Site

Bond Street

Crossrail Proposals (1)



Building Crossrail Bond Street Station
Two main worksites are proposed.

Davies Street Ticket Hall

The western worksite would be within the block bounded by Davies Street, St Anselm's Place, Gilbert Street and Weighhouse Street and would require demolition of the existing buildings.

Hanover Square Ticket Hall

The eastern worksite would be at 18/19 Hanover Square and would require the demolition of existing buildings. This worksite would extend over the western side of Hanover Square and partly into the Gardens. It is proposed that two temporary construction shafts would be located in a part of the Gardens to construct the station tunnels.

Site accommodation (for storage and offices) would be within the Hanover Square worksite and would extend into and over the road for the duration of the works.

Hanover Square Gardens is a protected London Square. It is currently anticipated that construction work in the Gardens would result in the loss of 3 mature trees. Following completion of the works, the Gardens would be reinstated and the trees replaced.

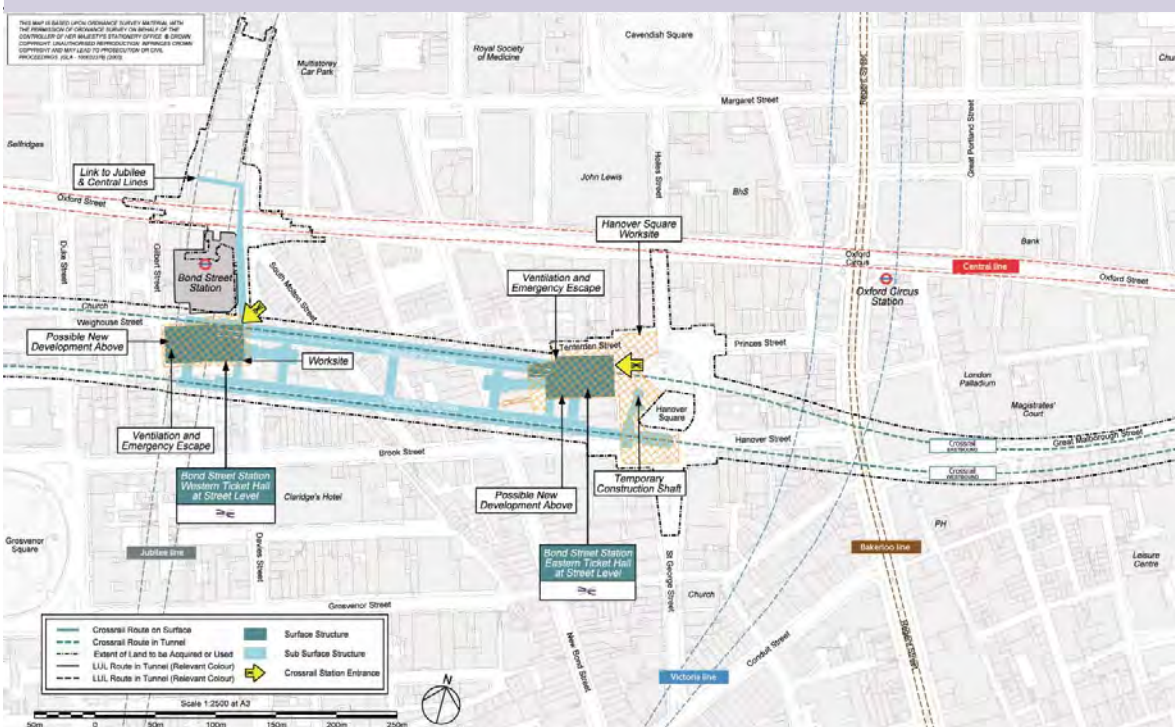


View of potential new building above the western ticket hall



View of potential new building above the eastern ticket hall

Bond Street Station Proposed development



Bond Street

Crossrail Proposals (2)



Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that it would be necessary to restrict access to Davies Street, Weighhouse Street, Tenterden Street, the north and west sides of Hanover Square and the north side of Brook Street during construction.

Davies Street Ticket Hall

It is currently anticipated that construction traffic would arrive from Park Lane, via Grosvenor Square, west along Brook Street and north along Davies Street. Traffic would exit the proposed ticket hall site from its north side, travelling along Weighhouse Street to Duke Street and back to Park Lane via Grosvenor Square.

During the first phase of construction, it would be necessary for the section of Davies Street, north of the junction with Weighhouse Street, to be temporarily closed. During this period, Weighhouse Street south of the junction would operate two-way. St Anselms Place would be closed at its junction with Gilbert Street. Lorry holding areas would be located at Baker Street and Park Crescent. Crossrail would maintain access to business and residential properties during construction.

Hanover Square Ticket Hall

It is currently anticipated that construction traffic for the Hanover Square Ticket Hall would arrive from Portland Place via Regent Street, travel west along Oxford Street, south along New Bond Street and east along Brook Street into Hanover Square. Traffic would exit Hanover Square via Harewood Place, cross Oxford Street to Cavendish Square, before travelling north along Portland Place. Tenterden Street would be closed at the junction with Hanover Square. Access to the buildings on the north side of Tenterden Street would be maintained.

The western side of Hanover Square Gardens would be closed for a period while the works are undertaken.

Photography by Andrew Putler



Proposed Hanover Square Ticket Hall - Cutaway View



Proposed Hanover Square Ticket Hall - Entrance

Bond Street

Proposed Ticket Halls



Crossrail Bond Street station would be located approximately 100 metres south of Oxford Street. It would provide two new street level ticket halls.

The western ticket hall would occupy the block bounded by Davies Street, St Anselms Place, Gilbert Street and Weighhouse Street with the station entrance on the corner of Davies Street and Weighhouse Street.

From the Davies Street Ticket Hall, two three-way flights of escalators would provide access to the Crossrail platforms via an intermediate concourse.

The eastern ticket hall would occupy the site of 18/19 Hanover Square. From there, one flight of escalators would provide access to the Crossrail platforms.

Lift access from the street to platforms would be provided at both ends.

Provision would be made for a low-level connection between Crossrail and the London Underground Jubilee and Central lines.

At the Davies Street ticket hall, ventilation systems would be incorporated within the west side of the station building adjacent to Gilbert Street. At the Hanover Square Ticket Hall, ventilation systems would be incorporated at the western end of the station box just south of Tenterden Street. The station ventilation would provide draught relief and assist in maintaining passenger comfort within the station.

Photography by Andrew Putler



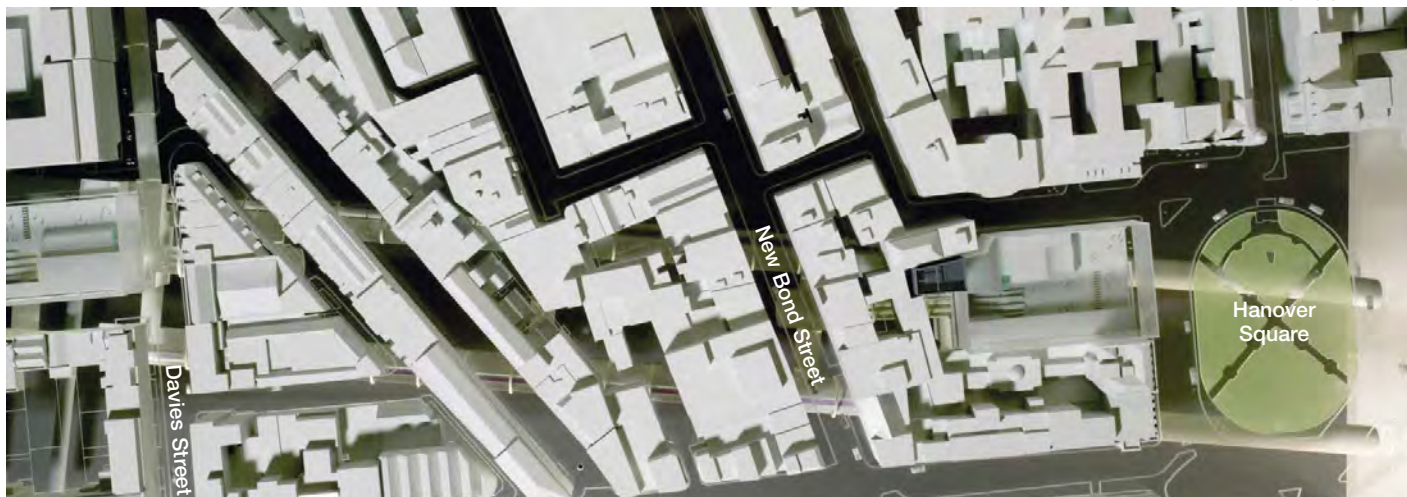
Proposed Davies Street Ticket Hall

Photography by Andrew Putler



Proposed Hanover Square Ticket Hall

Photography by Andrew Putler



Proposed Crossrail Bond Street – Aerial View

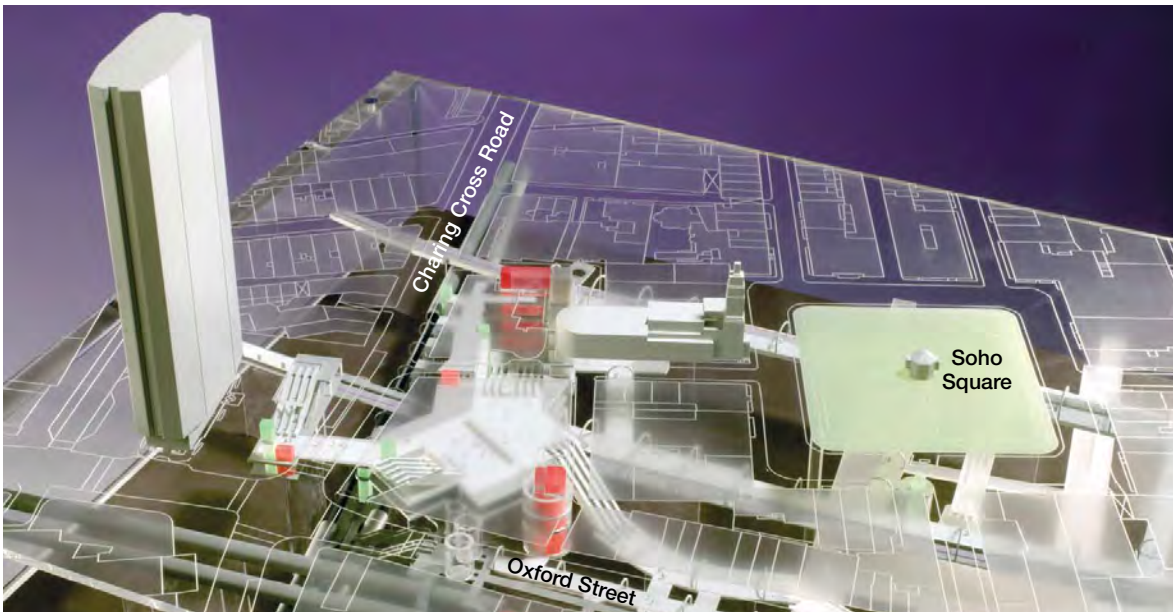
Tottenham Court Road Crossrail Proposals



Crossrail Tottenham Court Road station would be located on the south side of Oxford Street, between Dean Street and Charing Cross Road. Two basement level ticket halls would be provided at Dean Street and Charing Cross Road.

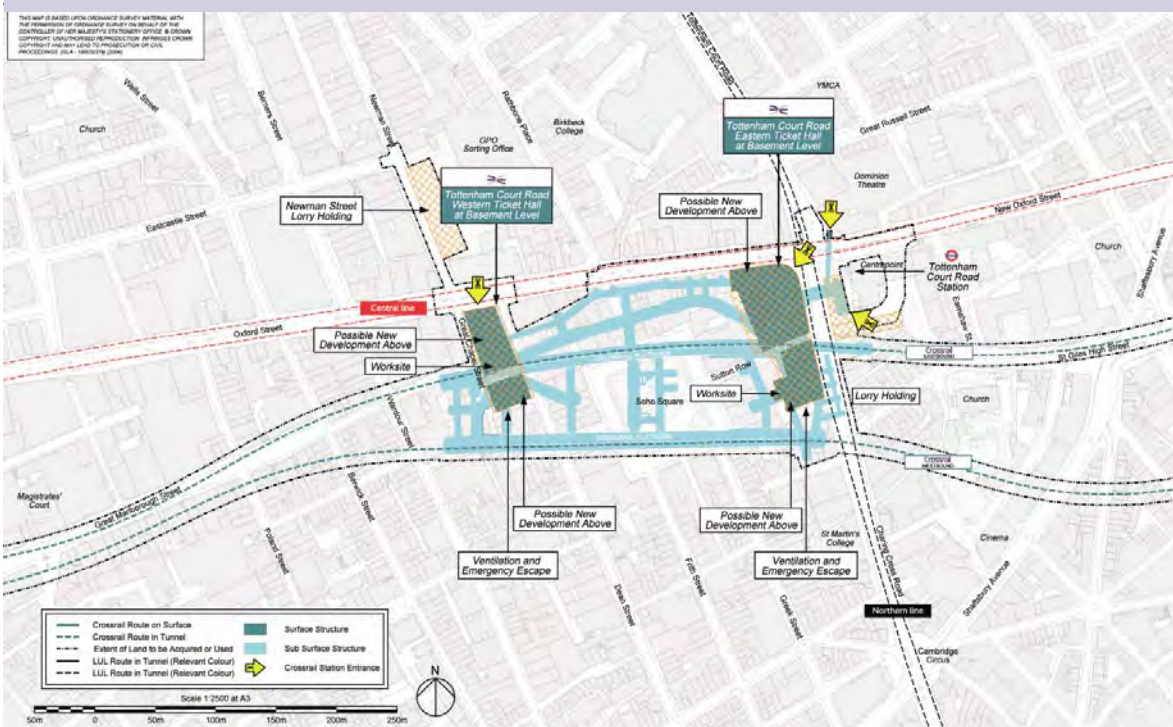
A secondary site at Goslett Yard would be used to construct underground circulation areas, ventilation and emergency intervention facilities. It could subsequently be the site of a new commercial development.

Photography by Andrew Putler



Site of Charing Cross Ticket Hall

Proposed Tottenham Court Road Station developments



Tottenham Court Road

Proposed Ticket Halls (1)



Dean Street Ticket Hall

The western ticket hall would have an entrance off the south side of Oxford Street and would be located in the block between Great Chapel Street, Fareham Street, Oxford Street and Dean Street. This ticket hall would be served by a bank of three escalators and a lift.

A new commercial development could be built over the ticket hall.

A second site at Fareham Street would house ventilation and emergency escape facilities and a new commercial development.



Proposed Dean Street Ticket Hall

Charing Cross Road Ticket Hall

The eastern ticket hall would be located in the block bounded by Oxford Street, Charing Cross Road, Sutton Row and Falconberg Court and would include the Astoria Theatre site. This ticket hall would be designed to serve Crossrail and the existing London Underground Central and Northern line services. Lifts and escalators would provide access to the Crossrail platforms. A new commercial development could be built over the ticket hall.

The main entrance would be on the southwest corner of the junction of Oxford Street and Charing Cross Road. Access from street level would be from a set of four escalators.

Following consultation with Westminster and Camden Councils, Crossrail propose to include a second entrance on the east side of Charing Cross Road, between New Oxford Street and Andrew Borde Street in order to improve access and enhance pedestrian safety. This entrance would be served by three escalators.

The existing London Underground station and station entrance at the northwest junction of Oxford Street and Tottenham Court Road would be closed. However, the existing "Dominion" station entrance to the northeast of the new ticket hall may be retained as an additional station access.

Subject to the agreement of Westminster City Council and Camden Council, the Tottenham Court Road and Oxford Street junction would be improved by the provision of better pedestrian crossings and larger footway areas.



Proposed Charing Cross Road Ticket Hall

Tottenham Court Road

Proposed Ticket Halls (2)



Building Crossrail Tottenham Court Station

There would be two main worksites.

The western site would be the block bounded by Oxford Street, Dean Street, Fareham Street and Great Chapel Street. For the duration of the station construction, Great Chapel Street would be closed at the north end to provide lorry access from a lorry holding area at Newman Street. The junction with Oxford Street would have traffic control to ensure lorry access is safe and separated from traffic on Oxford Street.

The Royal Mail Newman Street car park, north of Oxford Street, would provide site accommodation, storage and lorry holding facilities for the construction of the Dean Street Ticket Hall.

A worksite would be needed in an area in front of Centre Point for construction of the proposed station entrance.

Buildings in Dean Street would be demolished to build the ventilation shaft adjacent to the western ticket hall. Part of the Centre Point complex would be demolished in order to construct the entrance to the Eastern Ticket Hall in front of Centre Point.

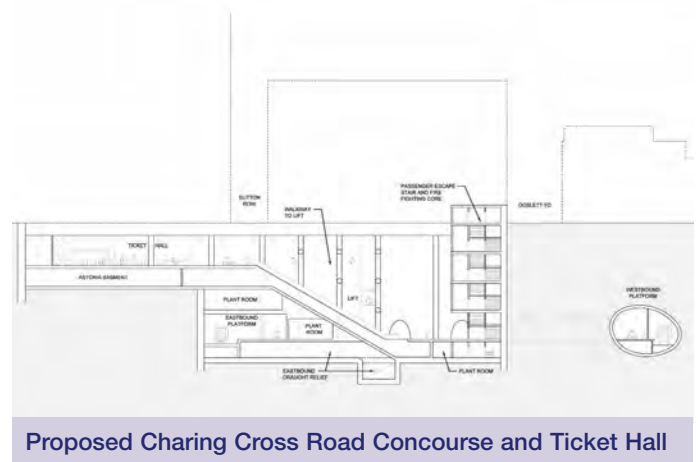
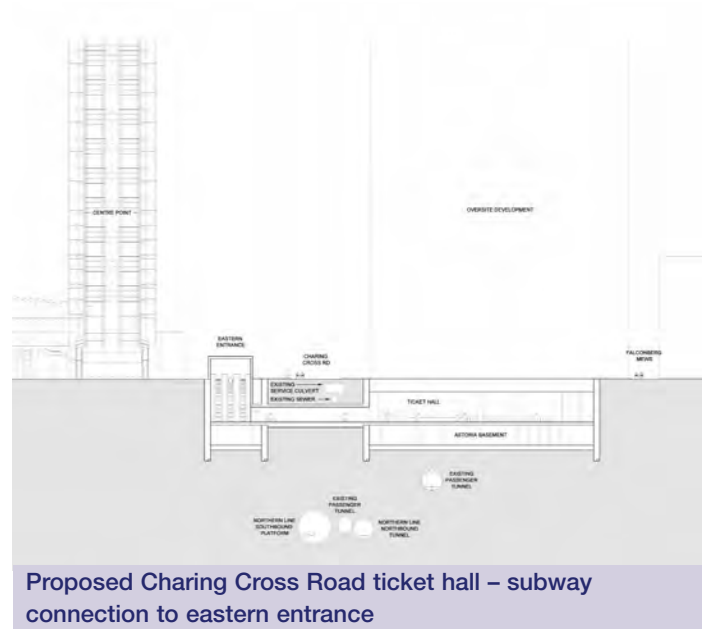
The eastern worksite would be in the area surrounded by Oxford Street, Charing Cross Road, Goslet Yard and Falconberg Court. The western end of Andrew Borde Street would be closed and used for lorry holding and to serve the eastern site. On completion, this area could be pedestrianised.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that footway closures and localised road narrowing would be necessary around both worksites. Temporary footways could be provided around the perimeter of the site where necessary.

Construction traffic for the western ticket hall would arrive from the Newman Street holding area, enter the site from Great Chapel Street and exit from Dean Street.

Construction traffic for the eastern ticket hall would access the site from points in Charing Cross Road.



Fisher Street Shaft

Crossrail Proposals



To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

The shaft would provide emergency ventilation and intervention to the Crossrail tunnels.

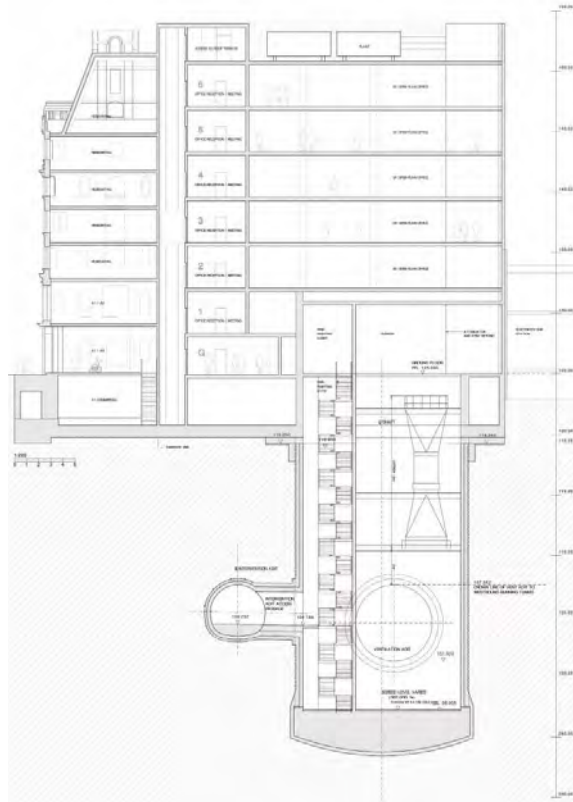
The proposed location for this shaft would be in the block between Southampton Row, Fisher Street, Catton Street up to the adjacent electricity sub-station.

The internal access stairs and landings would provide access for emergency services in the event of an incident in the tunnels.

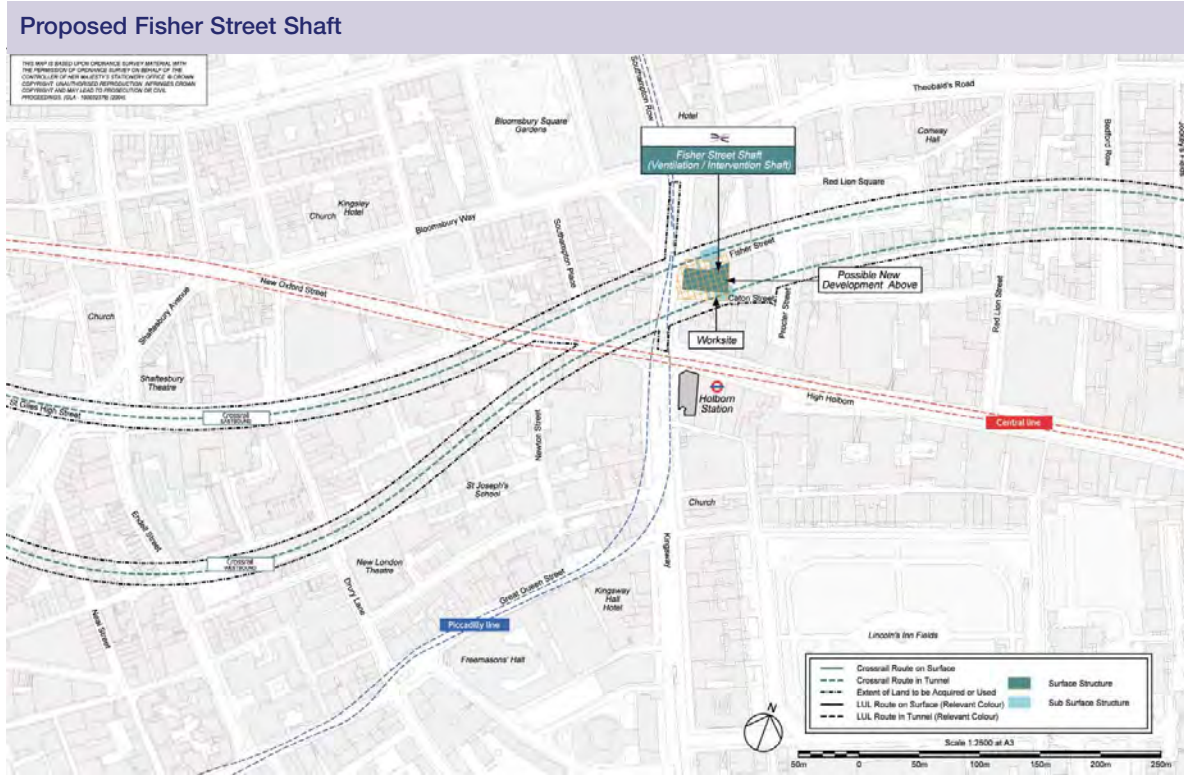
Access for emergency services and maintenance would be from Fisher Street, with provision for a two-van loading bay to reduce disruption during maintenance of the ventilation fans and plant.

The Fisher Street shaft would not be used for the evacuation of passengers. However, there would be provision for assisted evacuation of disabled or injured passengers by stretcher from track level directly to street level.

The tunnel boring machines from the tunnelling from Hanbury Street would be dismantled and removed from this site by low loader.



Proposed Fisher Street – Shaft Section



Fisher Street Shaft

Proposed Shaft Design



The possible future development shown indicates 8 to 10 Southampton Row converted to an office building with its main entrance on Southampton Row.

The new building to the west (wrapped around and above the ventilation shaft) could have secondary entrances and exits onto Fisher Street and Catton Street. The operational vent at the north eastern corner of the site would rise to a height comparable with this development.

The façade of 8-10 Southampton Row, a Grade II listed building, would be retained with a new building constructed behind to house the Fisher Street Vent Shaft. Measures would be taken to protect the Kingsway Tram Tunnel, a Grade II listed structure, adjacent to the worksite for the Fisher Street Vent Shaft.

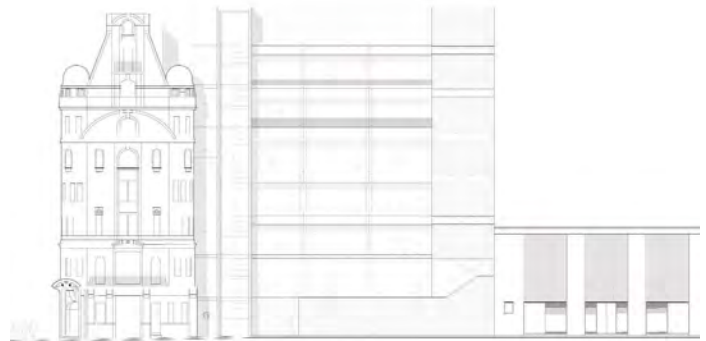
Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that lorries would access the site from Southampton Row using a lorry holding area on Proctor Street.

Temporary road and pavement closures on the western section of Catton Street and Fisher Street adjacent to the site would be required. Both roads would temporarily become two-way at their eastern ends to allow access to car parks on Catton Street and Fisher Street. The lorries that would be used to remove the tunnel boring machines would be parked in either Fisher Street or Catton Street for the period over which the removal operation takes place.



Proposed Fisher Street Shaft – Southampton Row Frontage



Proposed Fisher Street Shaft – Catton Street Frontage



Proposed Fisher Street Shaft – Fisher Street Frontage

Farringdon Crossrail Proposals



Building Crossrail Farringdon Station

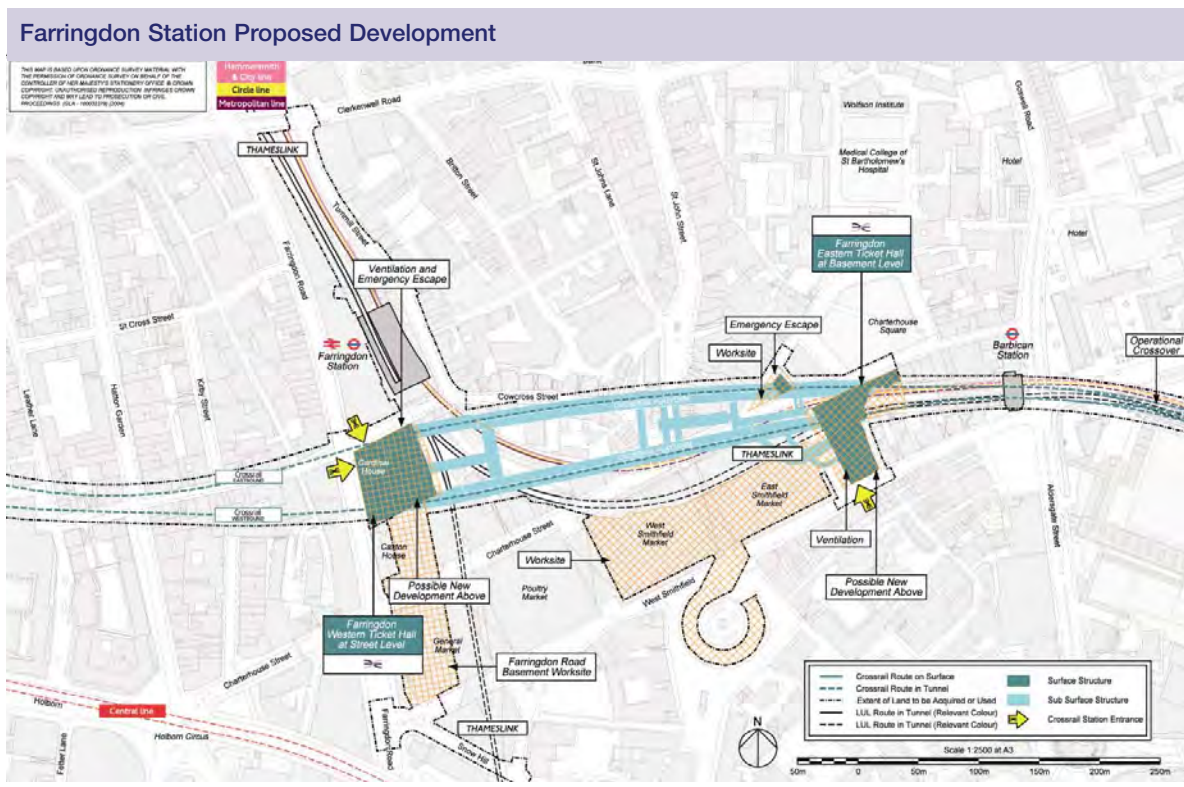
Two main worksites would be needed. The western worksite would be on the site of the proposed ticket hall at Farringdon Road, with Cardinal House being demolished.

The eastern worksite would be on the land bounded by Lindsey Street, Charterhouse Square and Hayne Street with the buildings currently on this site being demolished.

As a result of the proposed new ticket hall location, it would no longer be necessary for Crossrail to remove the Thameslink Moorgate branch and relocate London Underground sidings at Farringdon.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that construction traffic access would be from the junction of Snow Hill and West Smithfield, through General Market (Snow Hill), Cardinal House and Caxton House basement car parks. This basement area would also be used for temporary storage, site accommodation and lorry holding.



Farringdon

Proposed Ticket Halls



Crossrail's Farringdon station would be located between Farringdon Road and Charterhouse Square, to the south of the existing London Underground Farringdon station. Two Crossrail ticket halls would be provided.

The location of the Crossrail ticket hall at the western end of the station has been revised since Consultation Round 1. It would be provided at the junction of Farringdon Road and Cowcross Street, on the site of Cardinal House.

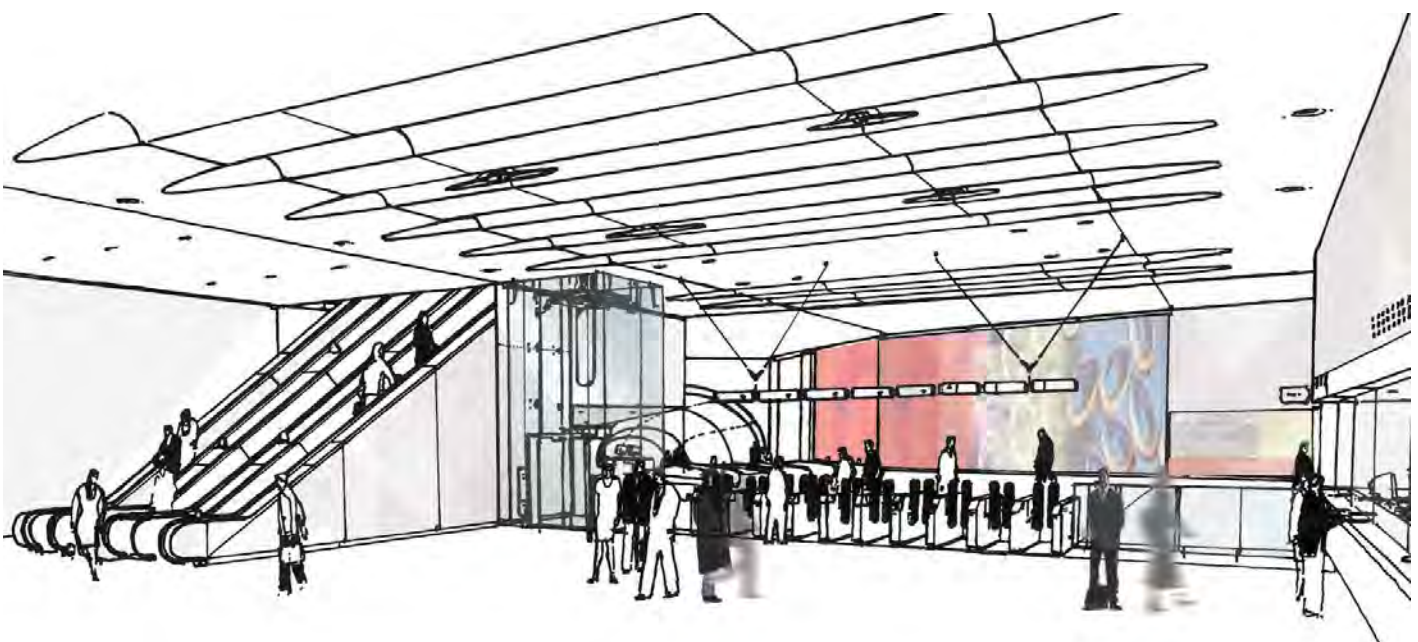
The ticket hall would be at street level and would provide interchange between Crossrail and the proposed Thameslink 2000. A bank of three-way escalators and a lift would provide access to the Crossrail platforms at the western end.

It is anticipated that the area between London Underground and Crossrail station entrances at Cowcross Street would be pedestrianised.

The eastern ticket hall would be situated at street level on the block bounded by Charterhouse Street, Hayne Street, Long Lane and Lindsey Street towards the eastern end of Smithfield Market and would provide interchange with Barbican station. Two banks of three escalators and lifts would provide access to the Crossrail platforms at the eastern end.

At the Farringdon/Cowcross ticket hall, station ventilation systems would be incorporated into the ticket hall structure. At the Lindsey Street ticket hall, station ventilation systems would be incorporated within the station on Lindsey Street.

The station ventilation would provide draught relief and assist in maintaining passenger comfort within the station.



Artist's Impression – Typical Crossrail Ticket Hall

Liverpool Street

Crossrail Proposals (1)



Building Crossrail Liverpool Street Station

The escalators that would connect the Crossrail platforms with Liverpool Street station would be constructed from Liverpool Street west. The revised design combines several shafts into a single structure that would require demolition of 11-12 Blomfield Street.

The Railway Tavern and 70 to 80 Old Broad Street (a listed building) would no longer require demolition under the current proposals.

The main (Liverpool Street) Crossrail station tunnelling worksite would be located in part of the gardens and bowling green area of Finsbury Circus. A temporary shaft would be established to enable the station platforms and facilities to be constructed. It would be necessary to demolish the existing pavilion. Most of the trees in the gardens would be retained. Crossrail would fully reinstate the Finsbury Circus bowling green and pavilion after the construction works are complete. Worksites would need to be established in the street area fronting 1-14 Liverpool Street and the Railway Tavern Public House.

The main western (Moorgate) worksite would be located at (91-109) Moorgate on the northern part of the block bounded by Moorfields, Moorgate, Moorplace and London Wall. The existing office buildings at (91-109) Moorgate would be demolished in order to construct the western ticket hall.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that construction traffic to all sites would be from Old Street, Shoreditch High Street and Bishopsgate. Traffic for either Liverpool Street or Blomfield Street would turn right into Liverpool Street and left into Blomfield Street. Traffic leaving either site would follow the one-way system south along Blomfield Street before heading west along London Wall and Wormwood Street, leaving the area via Bishopsgate and Great Eastern Street.

Moorfields would be closed south of the London Underground Moorgate station entrance. At all times there would be a safe pedestrian route through to the London Underground station.

During the construction period, smaller worksites would be located within the London Underground Liverpool Street station to create links to Crossrail. There would be some improvements to the layout of Liverpool Street station to improve circulation areas and to make the connection into the passage to the Crossrail's platforms.

One lane at the eastern end of London Wall and part of Circus Place would be temporarily closed and used for lorry holding during construction.



Proposed Crossrail Liverpool Street Ticket Hall

Liverpool Street

Crossrail Proposals (2)



Finsbury Circus

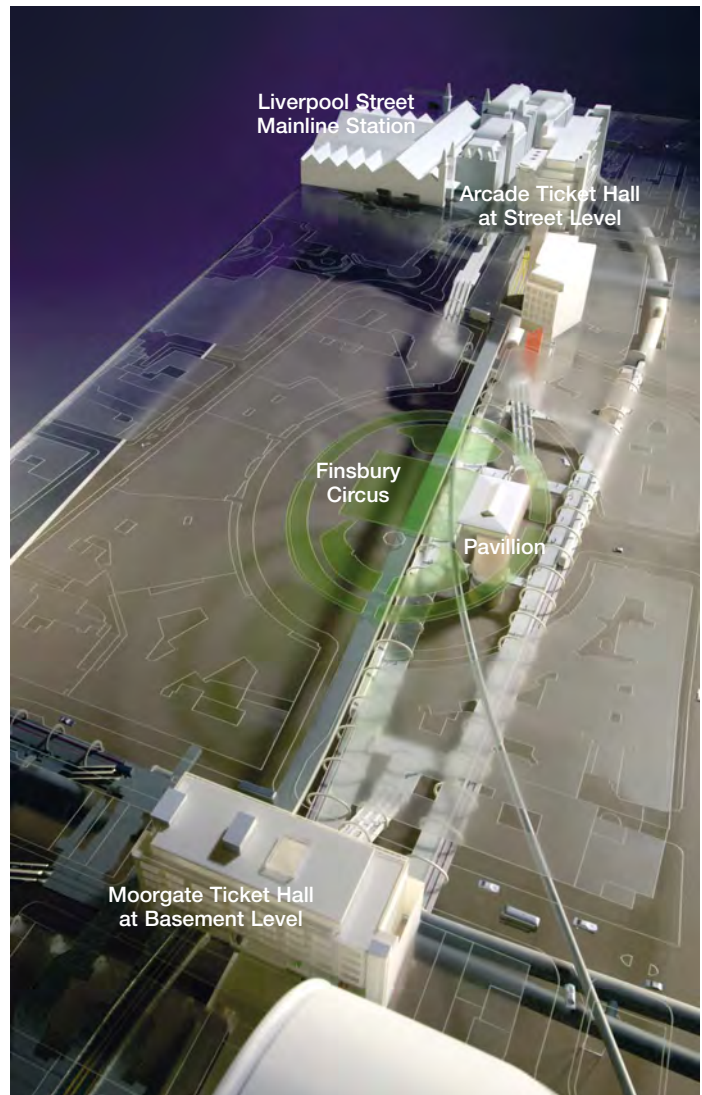
Finsbury Circus Gardens is designated as an Historic Park of Special Historic Interest and is located within a conservation area. The Grade II listed gazebo currently located in the gardens would need to be temporarily dismantled to clear the main worksite for the construction of a temporary access shaft. Following construction, the gardens would be reinstated and the gazebo would be reassembled.

Traffic and Access

It is currently anticipated that traffic for Finsbury Circus would head west along London Wall where it would approach the entrance in a clockwise direction. Traffic for Moorgate would follow a similar route, but would travel slightly further west before heading north along Bishopsgate. Traffic leaving the site would continue north along City Road rejoining the A501 arterial route at Old Street roundabout.

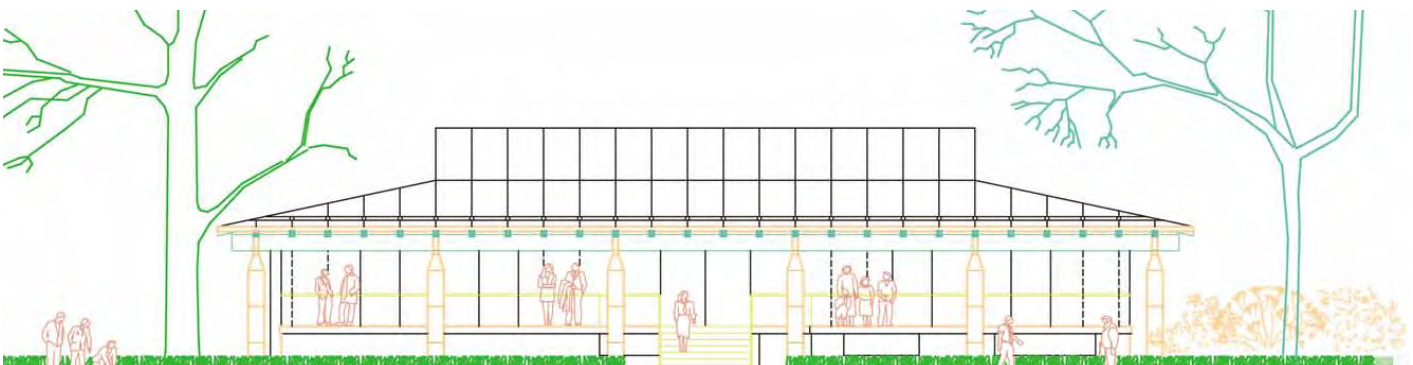


Architect's Model of Finsbury Circus



Photography by Andrew Putler

Architect's Model of Crossrail Liverpool Street Station showing Finsbury Circus



Proposed New Pavilion in Finsbury Circus

Liverpool Street

Proposed Eastern Ticket Hall



Crossrail Liverpool Street station would be located between Moorgate and Old Broad Street.

Liverpool Street Arcade Ticket Hall

Proposals for the east end of the station have been modified since Consultation Round 1. At the Liverpool Street end of the Crossrail Station, new escalators from the Crossrail platforms would link directly into the existing London Underground Liverpool Street ticket hall, giving access to the existing Main line concourse.

At the eastern end, a new ticket hall would be built over the London Underground Circle line platforms, replacing the Liverpool Street Arcade at street level. This new ticket hall would replace the London Underground ticket hall currently on the corner of Old Broad Street and Liverpool Street. Lift access would be provided to the Metropolitan westbound platform. A commercial development could be built above the new ticket hall.

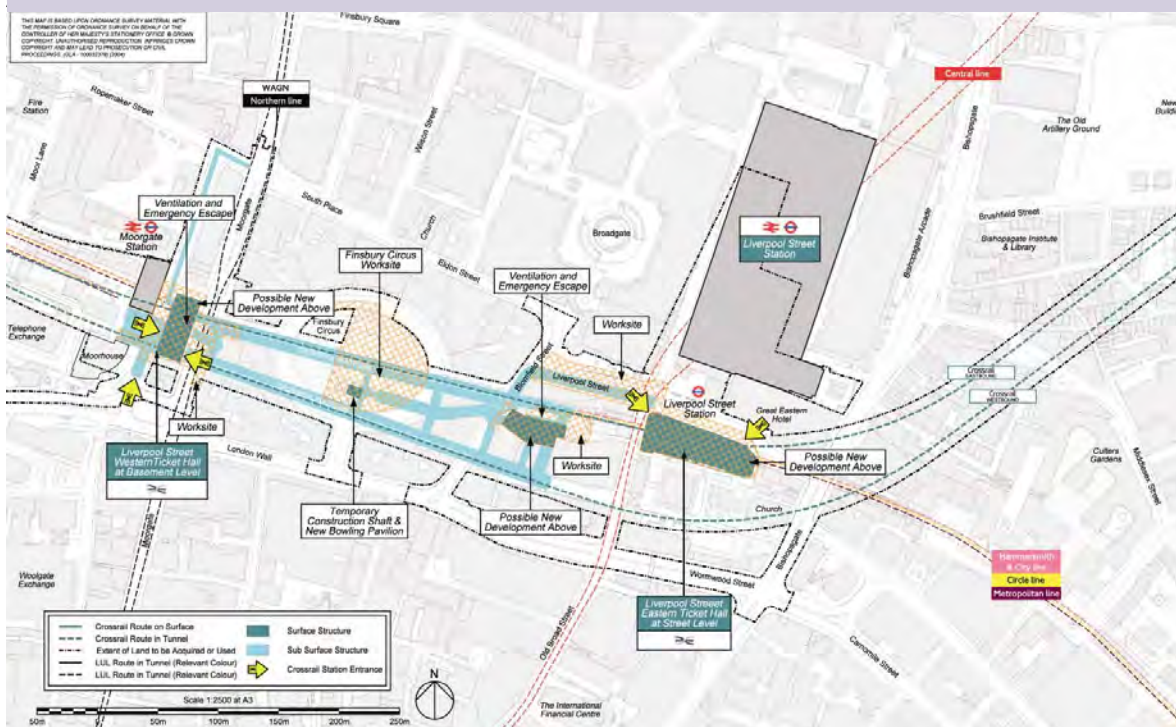
A shaft containing station ventilation and escape stairs would be constructed on the site of 11-12 Blomfield Street. This shaft would contain a lift from Metropolitan line platform level to Crossrail platforms.

A low level interchange passage, which would contain lifts between levels, would be provided between the Crossrail and Northern Line platforms.



Architect's Impression of Liverpool Street Proposed New Station Entrance

Liverpool Street Station Proposed Redevelopment



Liverpool Street

Proposed Western Ticket Hall



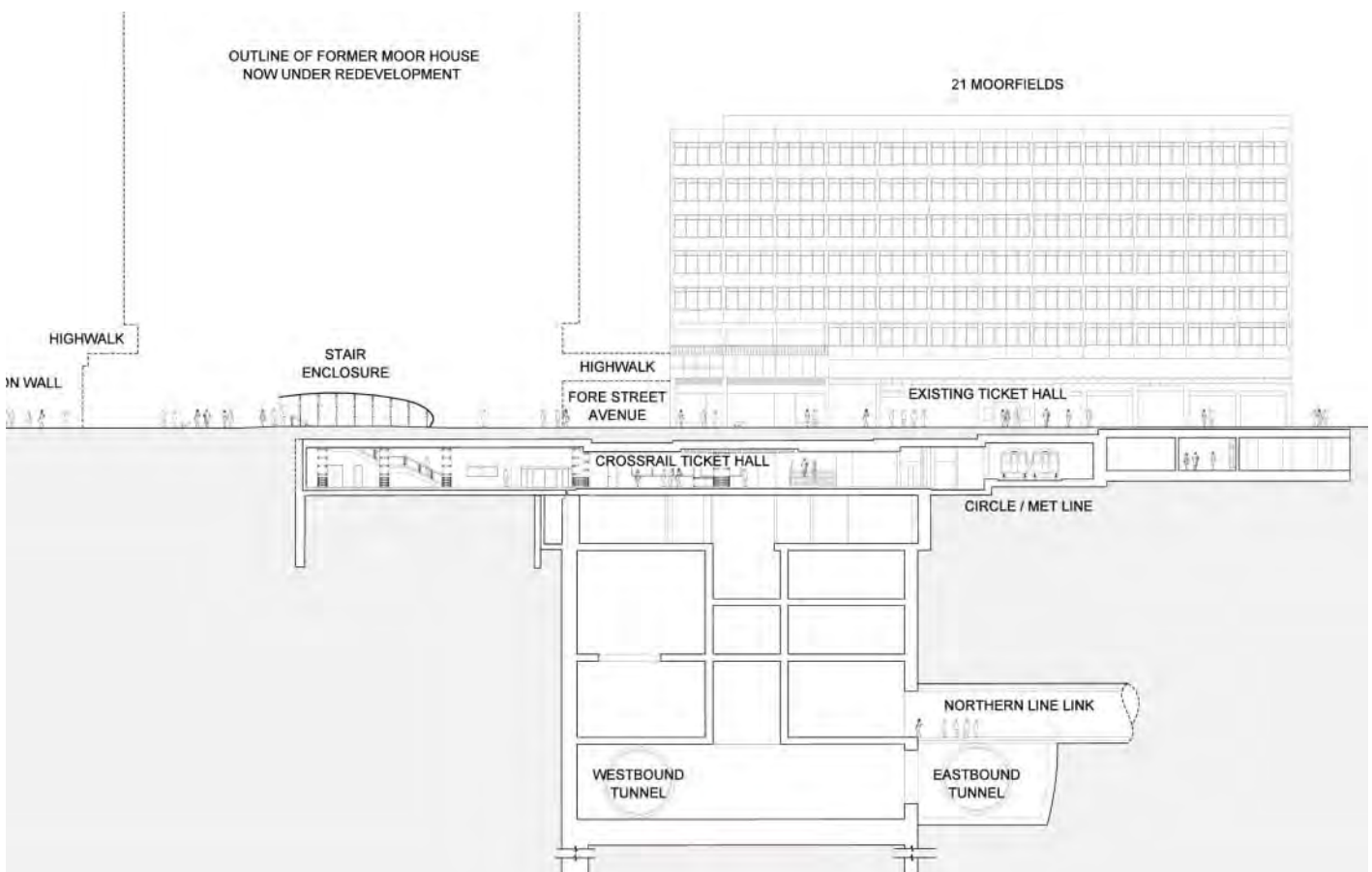
Moorgate Ticket Hall

At the west (Moorgate) end of the Crossrail station, a new basement level ticket hall would be provided, adjacent to the existing London Underground station. It would have access from a newly pedestrianised area in front of Moorhouse as well as a main ticket hall entrance off Moorgate.

The ticket hall would be situated partially under the northern part of the block bounded by Moorfields, Moorgate and Keats Place. Access to the ticket hall would include a lift from street level. A single flight of escalators and a lift would provide access from here to the Crossrail platforms.



Architect's Impression of Liverpool Street Western Ticket Hall



Proposed Liverpool Street Western Ticket Hall

Hanbury Street Shaft

Proposed Shaft Design (1)



To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

The proposed shaft would be located between Hanbury Street and Princelet Street and would provide emergency access and ventilation to the Crossrail tunnels between Liverpool Street and Whitechapel stations.

The ventilation building would house equipment needed to operate the ventilation fans. The fans would extract air from the tunnels and draw air in as required.

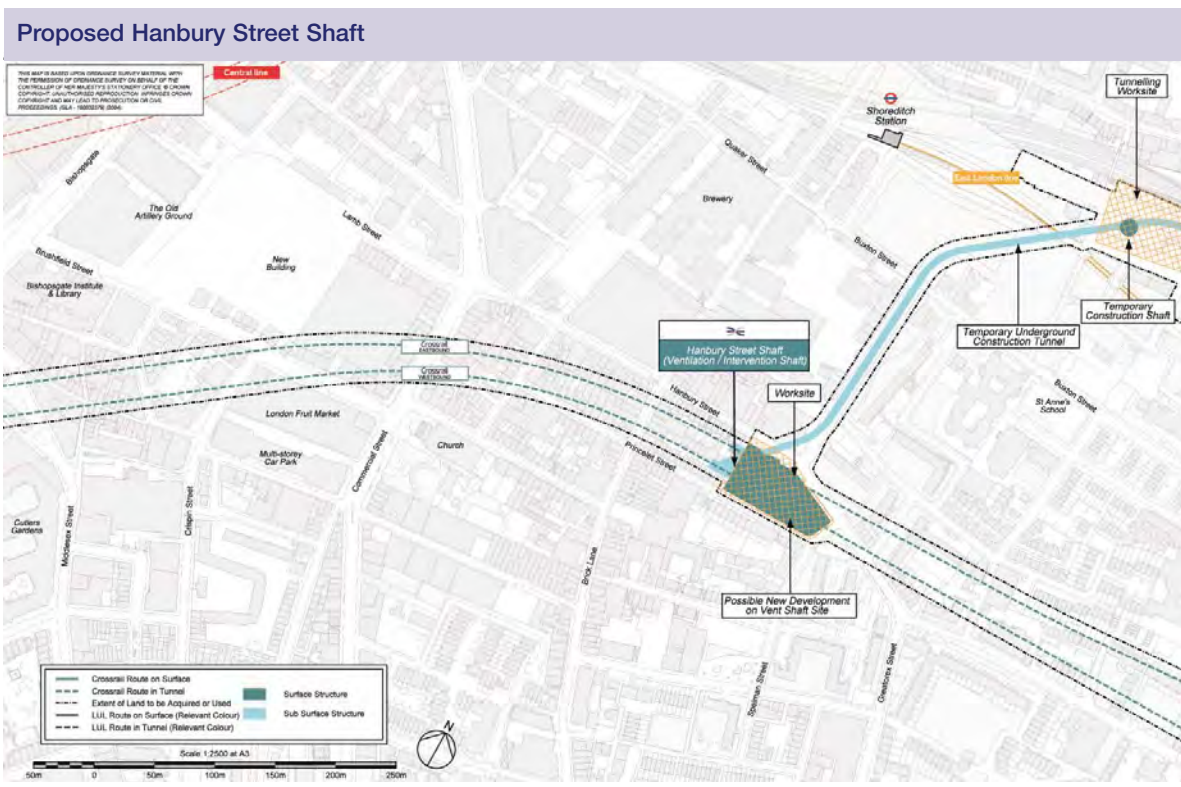
The shaft and tunnels would be approximately 31 metres (100 feet) deep at this location.

Construction of the shaft would require the demolition of 80-102 Hanbury Street and the single storey rear extensions to 63, 65 and 67 Princelet Street, followed by 68-80 Hanbury Street (Britannia House). A period of approximately 2.5 months would be required to complete each of the two phases of demolition.

Crossrail would work closely with the London Borough of Tower Hamlets in regard to construction principals.

In total, construction of the shaft would take approximately 18 months. During this period, excavated material would be removed by lorries travelling to the east of the site.

At no time would any lorries travel towards or along Brick Lane.



হ্যানবারী স্ট্রীট শাফট

প্রস্তাবিত শাফটের ডিজাইন (১)



রেলওয়ের নিরাপদে চলাচল নিশ্চিত করার উদ্দেশ্যে লন্ডন ফায়ার এন্ড ইমার্জেন্সী প্লানিং অথরিটি দাবী করে যে, সুড়ঙ্গ প্রবেশের মুখগুলোর মধ্যে 1 কিলোমিটারের চেয়ে বেশী দূরত্ব থাকবে না।

প্রস্তাবিত শাফট (সুড়ঙ্গের মুখ)টি হ্যানবারী স্ট্রীট এবং প্রিন্সলেট স্ট্রীটের মধ্যে অবস্থিত হবে এবং সেটি লিভারপুল স্ট্রীট ও হোয়াইটচ্যাপেল স্টেশনের মধ্যে ক্রসরেলের সুড়ঙ্গ (টানেল)গুলোতে জরুরী প্রয়োজনে প্রবেশ এবং বাতাস চলাচলের (ভেন্টিলেশন) সুযোগ দিবে।

‘ভেন্টিলেশন বিল্ডিং’ (বাতাস চলাচলের ব্যবস্থা নিয়ন্ত্রণকারী বিল্ডিং)-এ ভেন্টিলেশনের পাখা (ফ্যান)গুলোগুলো চালানোর জন্য প্রয়োজনীয় যন্ত্রপাতি থাকবে। পাখাগুলো প্রয়োজনমতো সুড়ঙ্গ থেকে বাতাস বের করে দিবে এবং টেনে ভিতরে নিয়ে যাবে।

এই স্থানে শাফট ও সুড়ঙ্গগুলো আনুমানিক 31 মিটার (100 ফুট) গভীর হবে।

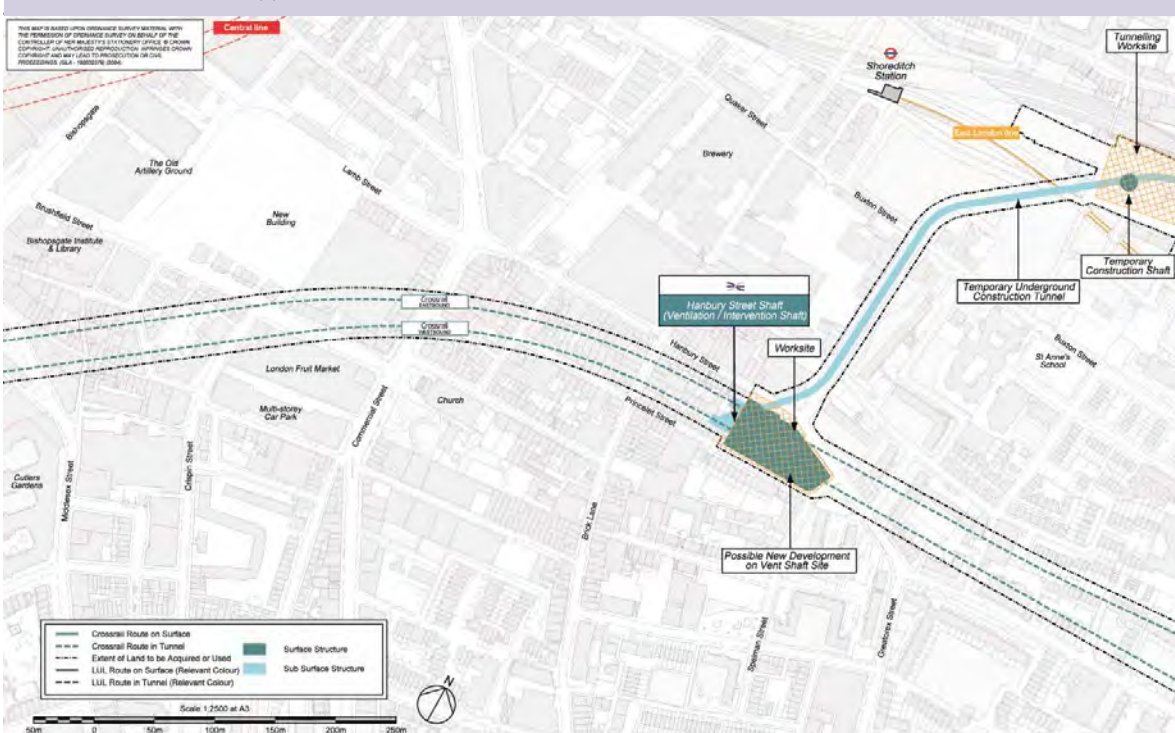
শাফট নির্মাণের জন্য 82-102 হ্যানবারী স্ট্রীটের বাড়িঘর এবং 63,65 ও 67 প্রিন্সলেট স্ট্রীটের ঘরের পিছনের একতলা সম্প্রসারণ (এক্সটেনশন)গুলো ভেঙ্গে ফেলার প্রয়োজন হবে। এগুলোর পরবর্তীতে 68-80 হ্যানবারী স্ট্রীট (ব্রিটানিয়া হাউস) ভাঙ্গা হবে। দুই পর্যায়ের ভাঙ্গার কাজের প্রতিটির জন্য আনুমানিক 2.5 (আড়াই) মাস সময়ের প্রয়োজন হবে।

এলাকাটিতে কাজের জন্য দিনের মধ্যে উপযুক্ত সময় এবং স্থানীয় কমিউনিটির মতামতের ব্যাপারে ক্রসরেল টাওয়ার হ্যামলেট্‌স কাউন্সিলের সাথে ঘনিষ্ঠভাবে কাজ করবে।

সবকিছু মিলিয়ে শাফট নির্মাণের জন্য আনুমানিক 18 মাস সময় লাগবে। এই সময়ের মধ্যে খুঁড়ে বের করা জিনিষপত্র কাজের স্থানের পূর্ব দিক দিয়ে চলাচল করা লরী দিয়ে সরিয়ে ফেলা হবে।

কোনো সময়েই কোনো লরী ব্রিকলেনের দিকে অথবা সেদিক ধরে চলাচল করবে না।

প্রস্তাবিত হ্যানবারী স্ট্রীট শাফট



Bir Jid-tareen Hanbury

Naqshad Bir Jid-tareen La qorsheeyey (Proposed Shaft Design (1))



Si loo xaqiijiyo amni u socoshada wado-tareen, Maamulka Qorsheynta Dabdemiska iyo Hawlaha Degdega ah ee London wuxuu u baahan yahay duleel la maraniyo Biro jid-tareen in la keeno oo ayna isu jiraan wax aan ka badneyn 1 kilometer.

Birta Jid-tareen ee la qorsheeyey waxaa lagu meeleyn doonaa inta u dhaxeysa Hanbury Street iyo Princelet Street waxayna keeni doontaa meel maris xaalad degdeg ah iyo hawo-siin duleelada Crossrail ee u dhexeeya isteeshinada tareen ee Liverpool Street iyo Whitechapel.

Daarta hawo-siin waxay guri u noqon doontaa qalab loo baahan yahay in lagu socodsiiyo faananka hawo-siinta. Faananka waxay hawo ka soo jiidi doonaan duleelada waxayna soo gelinayaan hawo intii loo baahdo.

Birta jidka tareenka iyo duleelka waxay isu jiri doonaa qiyaas ahaan 31 meter (100 dhudhun) oo qoto ah goobtaan.

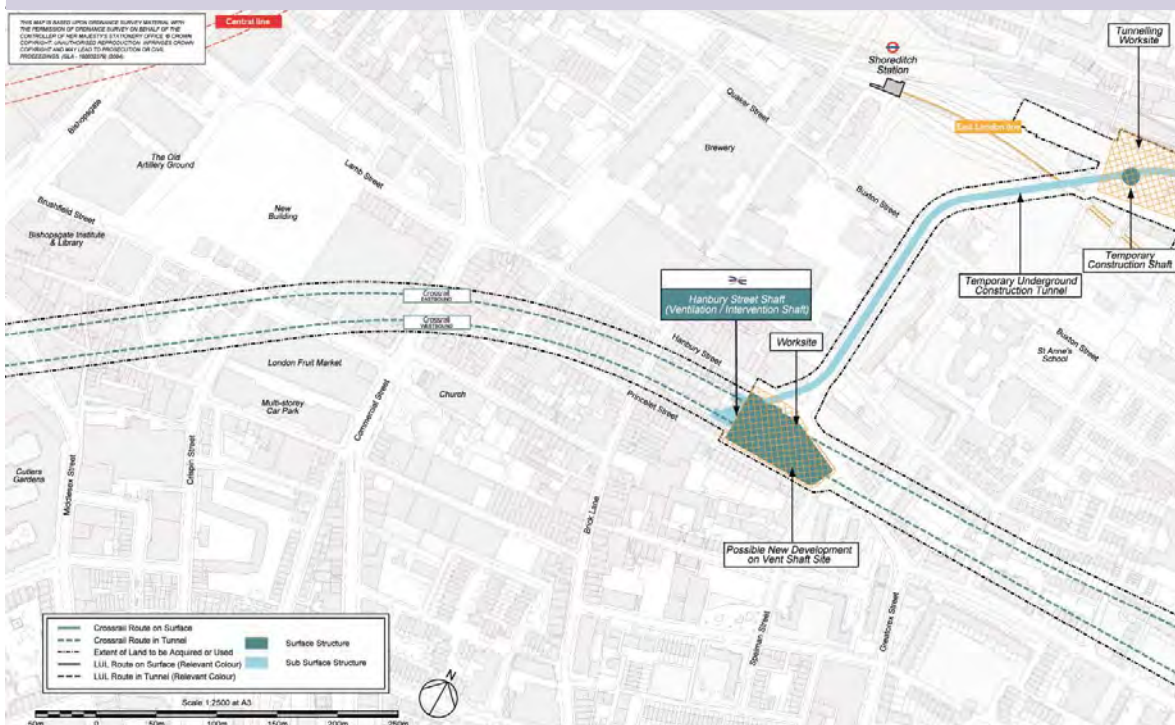
Dhismaha Bir Jid-tareen waxa uu u baahan doonaa burburinta dhismayaasha 80-102 Hanbury Street iyo guri hal dabaq ah oo gadaal loogu ballaarinayo dhismayaasha 63, 65 iyo 67 Princelet Street, oo ay soo raaceyso 68-80 Hanbury Street (Britannia House). Muddo qiyaas ahaan 2.5 bilood ayaa loo baahan doonaa in lagu dhameystiro mid kastoo kamida labada waji ee burburinta.

Shirkada Crossrail waxay si dhaw ula shaqeyn doontaa Degamda Tower Hamlets ee London marka la eego qodobada dhismaha.

Isugeyn, dhismaha bir jid-tareen waxay qiyaas ahaan qaadan doontaa muddo 18 bilood ah. Inta lagu jiro mudadaan, waxyaabaha la soo qoday waxaa fogeyn doona baabuur waaweyn oo ka bixi doona dhanka bari ee goobta.

Sinaba uma sameyn doono baabuur weyn inuu u safro dhanka ku beegan Brick Lane.

Bir Jid-tareen Hanbury



Hanbury Street Shaft

Proposed Shaft Design (2)



The Hanbury Street shaft would be used as a starting point for tunnel boring machines (TBM's). The TBM's would be delivered to the site and installed at the base of the shaft.

Hanbury Street Shaft would be one of seven points along the route used as a starting point for TBM's.

Following the estimated 18 months of surface activity to construct the shaft, it would be acoustically capped and the TBM's would leave the site as they start their tunnel run.

A total of four tunnels would be constructed - two towards Fisher Street and two towards Whitechapel.

After the TBM's have left, all tunnelling activities would be serviced from a temporary construction shaft and worksite at Pedley Street, connected underground to the base of the Hanbury Street shaft by a temporary tunnel.

The overall period for the excavation of the main tunnels would be approximately two years. During this period, no surface construction activity is currently proposed at the Hanbury Street site.

Throughout the works there would be a 24-hour on-site security presence. The site would also be hoarded.

Following completion of the tunnelling, some of the TBM equipment would be retrieved from the top of the Hanbury Street shaft over a period of a few weeks.

There would subsequently be a fit-out of the permanent shaft equipment over a period of three months. The only activity following this would be periodic inspection and maintenance of the shaft equipment.

Crossrail has appointed architects to develop design proposals for replacement buildings to surround the shaft in keeping with the surrounding area. The proposals would be considered in consultation with the London Borough of Tower Hamlets.



Architect's Impression – Princelet Street after completion of work

হ্যানবারী স্ট্রীট শাফট

প্রস্তাবিত শাফটের ডিজাইন (২)



শাফটটিকে এরপর টানেল খননের যন্ত্রের (টিবিএম - টানেল বোরিং মেশিন) গুরুত্ব বিন্দু হিসেবে প্রস্তাব করা হয়েছে। টিবিএমগুলোকে হ্যানবারী স্ট্রীটের এলাকায় সরবরাহ করা হবে এবং এগুলোকে শাফটের ভিত্তিস্থলে লাগানো হবে।

শাফটটিকে এরপর টানেল খননের যন্ত্রের (টিবিএম - টানেল বোরিং মেশিন) গুরুত্ব বিন্দু হিসেবে প্রস্তাব করা হয়েছে। টিবিএমগুলোকে হ্যানবারী স্ট্রীটের এলাকায় সরবরাহ করা হবে এবং এগুলোকে শাফটের ভিত্তিস্থলে লাগানো হবে।

হ্যানবারী স্ট্রীটের শাফট নির্মাণের উদ্দেশ্যে 18 মাস ধরে মাটির উপরে নির্মাণ কাজের পর বের না হওয়ার মতো করে এটিকে শব্দ ঢেকে দেয়া হবে।

সর্বমোট চারটি সুড়ঙ্গ খনন করা হবে - দুইটি ফিশার স্ট্রীট পর্যন্ত এবং দুইটি হোয়াইটচ্যাপেলের দিকে।

টিবিএমগুলো হ্যানবারী স্ট্রীটের শাফট ছেড়ে যাওয়ার পর সুড়ঙ্গ খনন করার সকল কাজ পেডলী স্ট্রীটে অবস্থিত নির্মাণকাজের জন্য তৈরী একটি অস্থায়ী শাফট থেকে করা হবে, যা একটি অস্থায়ী সুড়ঙ্গের মাধ্যমে মাটির নিচ দিয়ে হ্যানবারী স্ট্রীটের সাথে সংযুক্ত থাকবে।

মূল সুড়ঙ্গগুলো খনন করার জন্য সার্বিকভাবে আনুমানিক দুই বছর সময় লাগবে। এই সময়ে মধ্যে হ্যানবারী স্ট্রীটে মাটির উপরে কোনো নির্মাণ কাজ করা হবেনা।

সমগ্র কাজের সময়ব্যাপী কাজের স্থানে 24 ঘন্টাব্যাপী নিরাপত্তা ব্যবস্থা থাকবে। এছাড়াও স্থানটিকে বেড়া দিয়ে রাখা হবে।

সুড়ঙ্গ তৈরী সম্পূর্ণ করার পর টিবিএমগুলোর কোনো কোনো যন্ত্রপাতি হ্যানবারী স্ট্রীটের শাফটের উপর দিয়ে কয়েক সপ্তাহ মেয়াদের মধ্যে বের করে আনা হবে।

এর পরবর্তীতে তিন মাস সময়ব্যাপী শাফটের স্থায়ী যন্ত্রপাতি লাগানো হবে। এর পরবর্তী একমাত্র কাজ হবে নির্দিষ্ট মেয়াদ পরপর শাফটের যন্ত্রপাতিগুলোর রক্ষণাবেক্ষণ এবং পরিদর্শন।

আশেপাশের এলাকার সাথে মিল থেকে শাফটের চারপাশের বিল্ডিংগুলোকে পরিবর্তন করার ব্যাপারে প্রস্তাব গড়ে তোলার উদ্দেশ্যে ডিজাইনের প্রস্তাব গড়ে তোলার জন্য ক্রসরেল আর্কিটেক্ট নিযুক্ত করেছে। লন্ডন বারা অব টাওয়ার হ্যামলেটস্-এর সাথে পরামর্শের ভিত্তিতে প্রস্তাবগুলোর ব্যাপারে বিবেচনা করা হবে।



আর্কিটেক্টের চোখে - কাজ শেষ হওয়ার পরে প্রিন্সলেট স্ট্রিটকে যেমন দেখা যাবে

Pedley Street Shaft

Crossrail Proposals



To reduce the need to use lorries to remove material excavated from the tunnels, a 6 metre diameter temporary construction tunnel is proposed to connect the base of the Hanbury Street shaft and the main Crossrail running tunnels to a temporary construction shaft on disused railway land adjacent to the Great Eastern Main Line at Pedley Street.

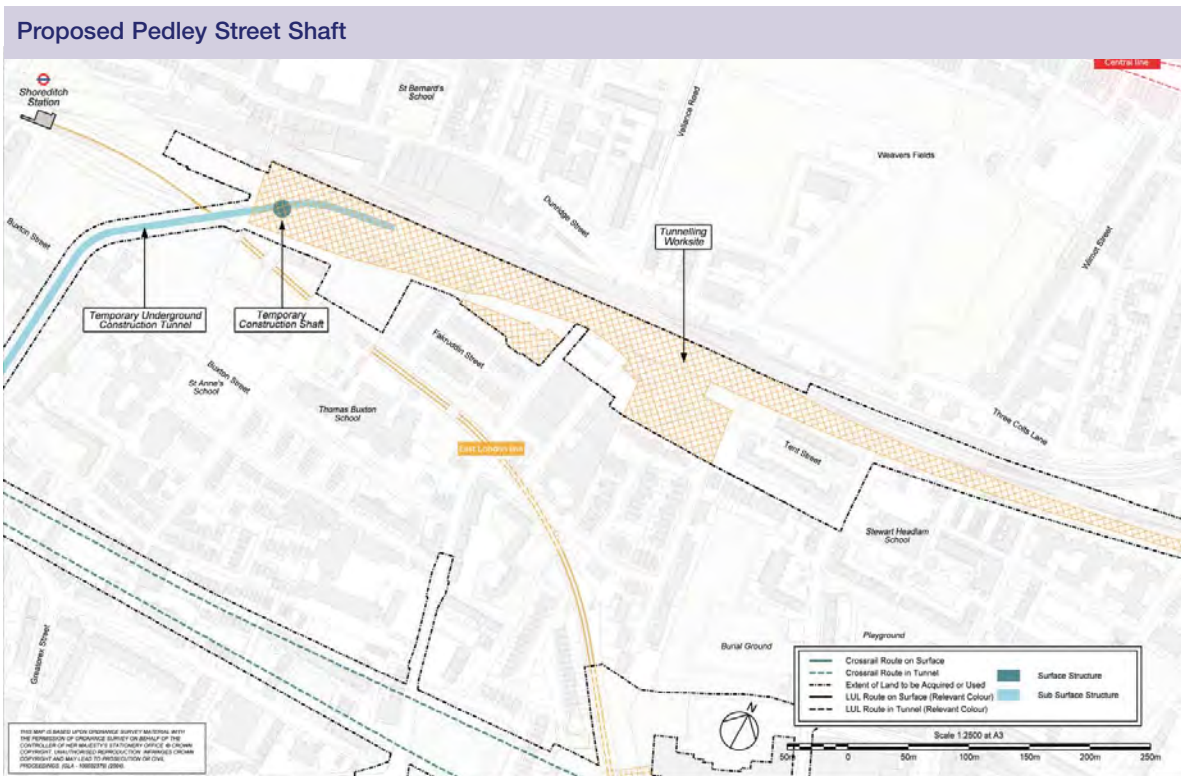
Material excavated from the running tunnels would be removed underground via the temporary tunnel and lifted to the surface through the Pedley Street shaft. From the Pedley Street shaft the excavated material would be transferred by a conveyor running east along the Great Eastern Main Line viaduct to a train loading facility at Sand End sidings, Mile End (South of Meath Gardens). The conveyor would be shrouded to control noise.

While construction of the Pedley Street temporary shaft and temporary tunnel is being undertaken, the conveyor to allow excavated material to be removed by rail would not have been completed. Consequently, material excavated from the temporary shaft and temporary tunnel would be removed by road out of the area during this period.

Segments that would form the running tunnel walls and all other materials would be delivered to the Pedley Street site and underground to the main Crossrail running tunnels through the temporary tunnel.

Current locations being considered for excavated material removed by rail from Sand End sidings are:

- Pitsea Landfill, Essex
- Rainham Landfill, Essex
- Ockendon Landfill, Essex



পেডলি স্ট্রিট শ্যাফট

ক্রসরেইলের প্রস্তাবনা



টানেল থেকে খনন করা মাটি সরানোর কাজে লরি ব্যবহারের প্রয়োজনীয়তা কমানোর জন্য 6 মিটার ব্যাসের একটা অস্থায়ী কনস্ট্রাকশন টানেল তৈরীর প্রস্তাব করা হয়েছে যেটা হ্যানবেরি স্ট্রিটের শ্যাফটের বেইজ এবং ক্রসরেইলের প্রধান রানিং টানেল থেকে প্যাডলি স্ট্রিটের গ্রেট ইস্টার্ন মেইন লাইনের পার্শ্বের জায়গার রেলের জমিতে একটা অস্থায়ী শ্যাফটের ভেতরে নির্মিত হবে।

অস্থায়ী টানেলের মাধ্যমে চলমান টানেল থেকে খনন করা মাটি মাটির নিচের পথে সরিয়ে ফেলা হবে এবং প্যাডলি স্ট্রিটের শ্যাফটের মাধ্যমে তা ভূমিতে উত্তোলন করা হবে। প্যাডলি স্ট্রিটের শ্যাফট থেকে এই খনন করা মাটি গ্রেট ইস্টার্ন মেইন লাইন বরাবর তৈরী করা পূর্ব দিক বরাবর একটা কনভেয়ারের মাধ্যমে স্যান্ড সাইডিং, মাইল এন্ডে (মিথ গার্ডেনের দক্ষিণ দিকে) ট্রেইন লোডিং এলাকা পর্যন্ত পৌঁছাবে। শব্দ দূষণ প্রতিরোধের জন্য এই কনভেয়ার ঢাকা থাকবে।

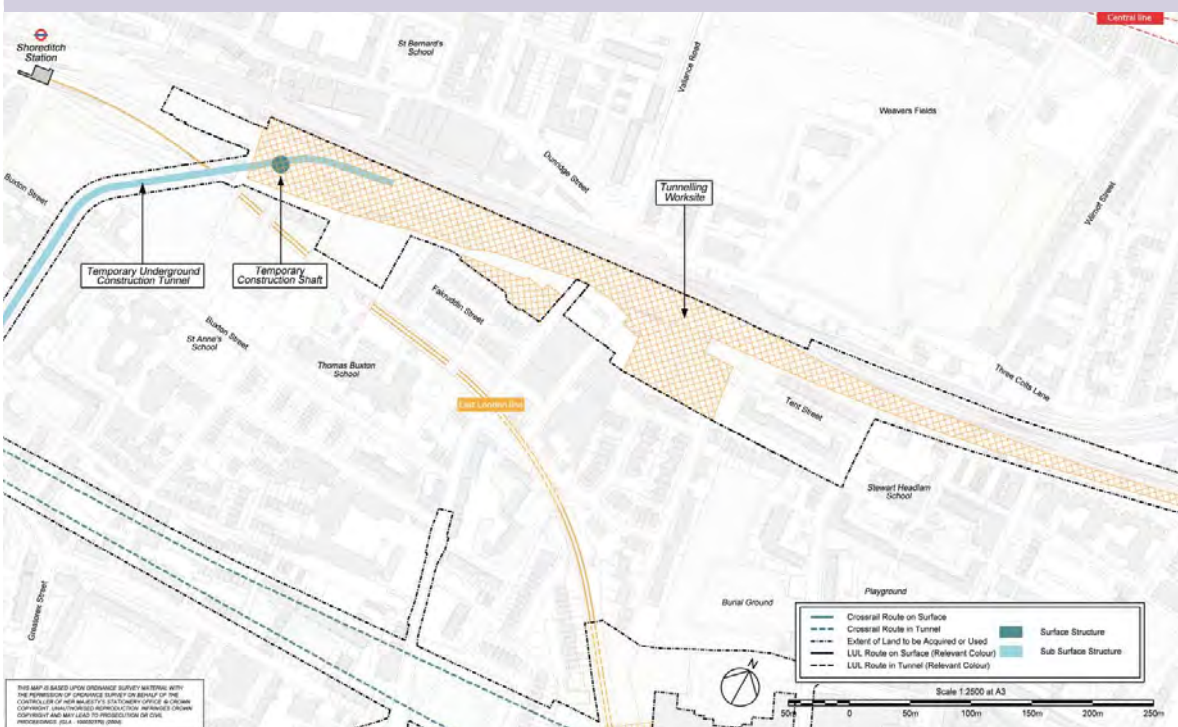
প্যাডলি স্ট্রিটের অস্থায়ী শ্যাফট এবং অস্থায়ী টানেল নির্মাণ কাজ চলাকালীন সময়ে রেলের মাধ্যমে উত্তোলিত মাটি অপসারণের জন্য কনভেয়ার তৈরী সম্পন্ন হবে না। এর ফলে এই সময়টুকু জুড়ে অস্থায়ী শ্যাফট ও টানেলের মাধ্যমে উত্তোলিত মাটি রাস্তা পথে অপসারণ করা হবে।

যে অংশগুলো একত্রিত হয়ে রানিং টানেলের দেয়াল গড়ে উঠবে সেগুলি এবং অন্যান্য সব উপকরণ প্যাডলি স্ট্রিটের কর্মস্থলে এবং অস্থায়ী টানেলের মাধ্যমে ক্রসরেইলের প্রধান টানেলে ভূমির তলদেশে সরবরাহ করা হবে।

স্যান্ড এন্ড সাইডিং থেকে রেলের মাধ্যমে উত্তোলিত মাটি অপসারণের জন্য বর্তমানে যেসব জায়গা বিবেচনা করা হচ্ছে সেগুলি হলো:

- পিটসী ল্যান্ডফিল, এসেক্স
- রেইনহ্যাম ল্যান্ডফিল, এসেক্স
- ওকেনডন ল্যান্ডফিল, এসেক্স

প্যাডলি স্ট্রিটের প্রস্তাবিত শ্যাফট



Bir Jid-tareen Pedley Street

Qorshayaal Shirkada Crossrail



Si loo yareeyo baahida adeegsiga baabuur waaweyn si loo fogeeyo waxyaabaha laga soo qoday duleelada, dhisme duleel ku meelgaara oo afkiisu yahay 6 meter isku wareega ayaa loo qorsheeyey inuu ku xiro salka birta jidka tareenka ee Hanbury Street iyo duleelada waaweyn ee Crossrail ee la qodayo dhisme bir jid tareen ku meelgaar oo laga dhisayo dhul waddo tareen ah oo aan la isticmaalin oo deris la ah Khadka Guud ee Tareenka Great Eastern ee mara Pedley Street.

Waxyaabaha laga soo qoday duleelada la wado waxaa dhulka hoostiisa looga soo qaadi doonaa iyadoo la adeegsanayo duleel ku meel gaar ah iyo iyadoo dusha sare loogu soo qaadayo iyadoo la adeegsanayo bir jidka tareen ee Pedley Street. Laga soo billaabo birta jid tareen Pedley Street waxyaabaha la soo qoday waxaa loo gudbin doonaa iyadoo la adeegsanayo qaade u soconaya dhanka bari dhinaca Khadka Guud ee Tareenka la sii marinayo buundo macmala lana saarayo tareen alaab ka qaada geeska isteeshinka Sand End, Mile End (Koofur Meath Gardens). Qaadaha waa la dahaari doonaa si loo ilaaliyo dhawaaqa.

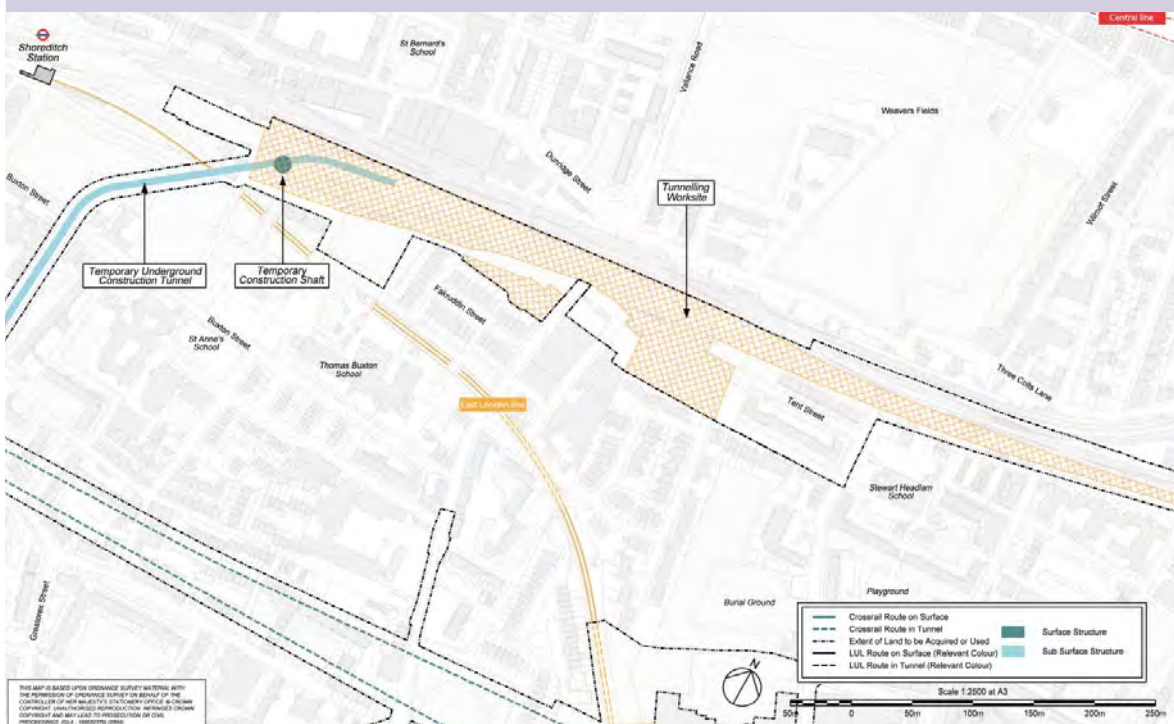
dhismaha bir jid tareen ku meel gaar ah ee Pedley Street iyo duleel ku meel gaar ah la fulinayo, qaadaha in la ogolaado in lagu fogeeyo waxyaabaha la soo qoday tareen ma dhameystirmi lahayn. Islamarkaas, waxyaabaha laga soo qoday bir jid tareen ku meel gaar ah iyo duleel ku meel gaar ah waxaa lagu fogeeyn lahaa iyadoo gawaari la adeegsanayo si looga fogeeyo goobta inta lagu jiro muddadan.

Qaybaha ay ka koobnaan doonaan derbiyada duleelka iyo dhammaan waxyaabaha kale waxaa lagu soo gaarsiin doonaa goobta Pedley Street iyo duleelada guud ee la wado ee Crossrail iyadoo la adeegsanayo duleelka ku meelka gaarka ah.

Goobaha waqtigan la tixgelinayo ee loogu talagalay waxyaabaha la soo qoday in lagu fogeeyo iyadoo la adeegsanayo tareen lana adeegsanayo geeska Sand End waa:

- Pitsea Landfill, Essex
- Rainham Landfill, Essex
- Ockendon Landfill, Essex

Qorshayaal Bir Jid-tareen Pedley Street



ডুরওয়ার্ড স্ট্রিট শ্যাফট

ক্রসরেলের প্রস্তাবনা



সোয়ানলী স্কুল

ডুরওয়ার্ড স্ট্রিটের শ্যাফট নির্মাণের কারণে সোয়ানলী স্কুল এবং কিছু সহায়ক ভবনে প্রবেশের পথ কিছু দিনের জন্য পরিবর্তন করতে হবে। স্টেশনের কাজ শেষ হয়ে যাওয়ার পরে ডুরওয়ার্ড স্ট্রিটে ক্রসরেল সোয়ানলী স্কুলের জন্য একটা নতুন প্রবেশ পথ তৈরী করে দিবে।

ক্রসরেল বর্তমানে সোয়ানলী স্কুল এবং টাওয়ার হ্যামলেটস্ এডুকেশান ডিপার্টমেন্টের সাথে স্কুলকে বড় আকারের খেলার মাঠ প্রদানের বিষয়ে আলোচনা করছে যার ভেতরে এসেক্স ওয়্যার্কের সম্পূর্ণ অব্যবহৃত জায়গা রয়েছে। জরুরী ভিত্তিতে রক্ষা পাওয়ার স্থানে (ইমার্জেন্সি এসকেপ সাইট) নিরাপদে পৌঁছানোর জন্য ক্রসরেলকে একটা সঠিক পথ তৈরী রাখতে হবে।

ডুরওয়ার্ড স্ট্রিটে স্কুলে ঢোকার পথের সম্ভাব্য যে বের হওয়ার পথ সেটা প্রদর্শিত চিত্রের মতো একটা উন্নত মানের স্থাপনার মাধ্যমে গড়ে তোলা হবে। এখানে একটা লাইট ওয়াল তৈরী প্রস্তাব করা হয়েছে যার মাধ্যমে ক্রসরেলের ভূগর্ভস্থ স্টেশানে প্রাকৃতিক দিনের আলো প্রবেশ করবে, এটা এই এলাকার স্থাপত্য সৌন্দর্য বৃদ্ধিতে অবদান রাখবে।

ক্রসরেল হোয়াইচ্যাপেল স্টেশন তৈরী

মূলতঃ দুটো কর্মস্থান থেকে টিকেট হল এবং স্টেশন টানেল তৈরী করা হবে। পূর্বের কর্মস্থান নির্মিত হবে সেইনসবেরিসের কার পার্কের দক্ষীনে। ডুরওয়ার্ড স্ট্রিট শ্যাফটের জন্য একটা ছোট আকারের কর্মক্ষেত্র এসেক্স ওয়্যার্ক এলাকাতে তৈরী করা হবে। এর জন্য প্রয়োজন মতো ফুটপথ বন্ধ করে দেয়া এবং কোথাও কোথাও রাস্তা সরু করে ফেলা হবে। এই নির্মাণ কাজ চলাকালীন সময়ে সেইনসবেরিসের কার পার্কের

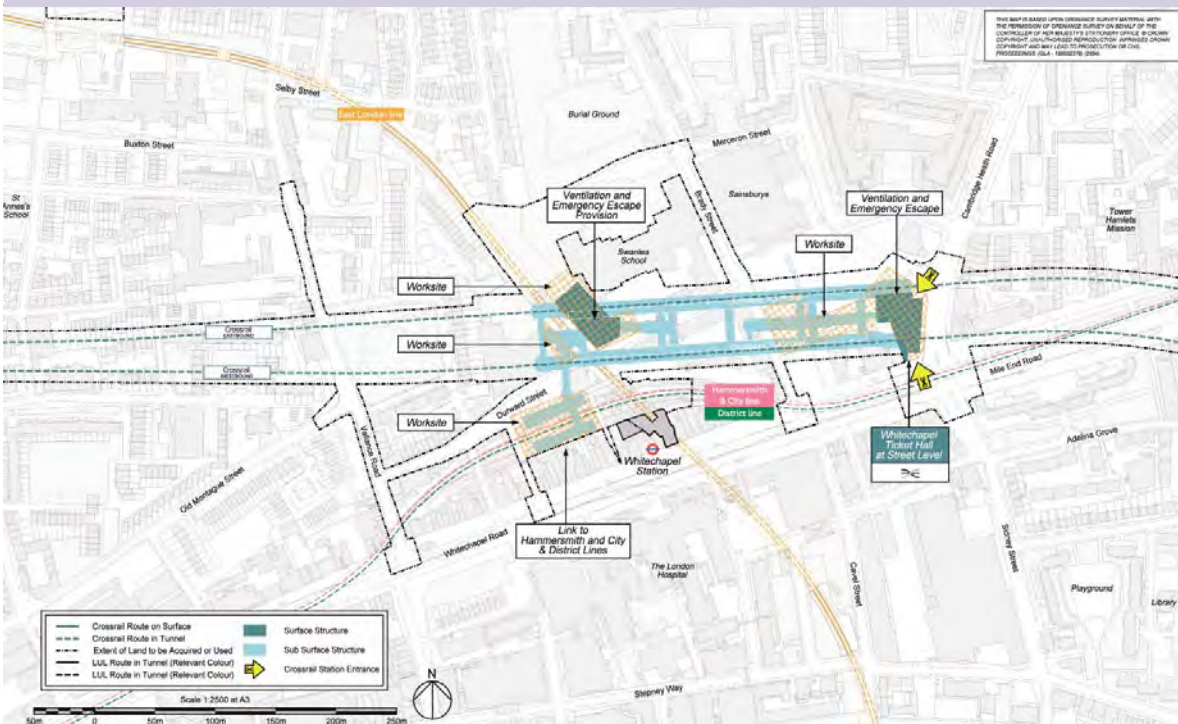
অধিকাংশ জায়গা ক্রসরেল ব্যবহার করবে এবং স্টেশন তৈরীর পরে এটাকে আবারো কার পার্কে পরিণত করা হবে।

এই স্থানে ষোড়শ শতাব্দীর একটা থিয়েটারের স্মৃতিচিহ্ন রক্ষা করা সম্ভব হবে। নির্মাণ কাজ শুরু হওয়ার আগে ক্রসরেল এই জায়গার থেকে সবাইকে সরিয়ে নিবে।



এসেক্স ওয়্যার্ক - প্রস্তাবিত লাইট ওয়াল

হোয়াইচ্যাপেল স্টেশন



Bir Jid-taree ee Durward

Qorshayaal Shirkada Crossrail



Iskuulka Swanlea

Qorshayaasha loogu talagalay Bir Jid-tareen Durward waxay u baahan doonaan dib u qaabeyno ku meel gaar ah oo lagu sameynayo sida loo soo galo Iskuulka Swanlea iyo qaar dhismoyaal siyaado ah. Shirkada Crossrail waxay bixin doontaa albaab cusub oo loo maro wadada Durward oo loogu talagalay Iskuulka Swanlea kaddib marka la dhameystiro shaqooyinka isteeshinka.

Shirkada Crossrail waxay wadatasho kala leeyihiin Iskuulka Swanlea iyo Waaxda Tacliinta Tower Hamlets qorshaha ah in loo sameeyo iskuulka goob cayaareed la ballaariyey oo ay ku jiri doonaan dhammaan goobaha aan la adeegsan ee Essex Wharf. Shirkada Crossrail waxay u baahan doontaa inay xafiddo jid wanaagsan oo loogu talagalay meel loo maro goob xaalada degdeg ah haddii ay timaato.

Arrin xushmad gooni ah la siinayo ayaa jirta oo loogu talagalay albaabka laga galo Wadada Durward ee iskuulka aadda in laga dhigo mid tayo sare leh sida sawirka lagu muujiyey. Iftiin wacan (light well) oo keenaya iftiin dabiici isteeshinka Crossrail ayaa bixin kara muuqaal dhismo xaafadeed.

Dhismaha Crossrail ee Isteeshinka Whitechapel Hoolka tikidhka iyo duleelada isteeshinka ayaa ugu horreynta laga dhisi doonaa labo goobood oo shaqo. Goob shaqo dhanka bari waxaa laga sameyn doonaa dhanka koofureed ee goobta gaari dhigasho suuqa Sainsbury. Goob shaqo oo ka yar oo loogu talagalay Bir

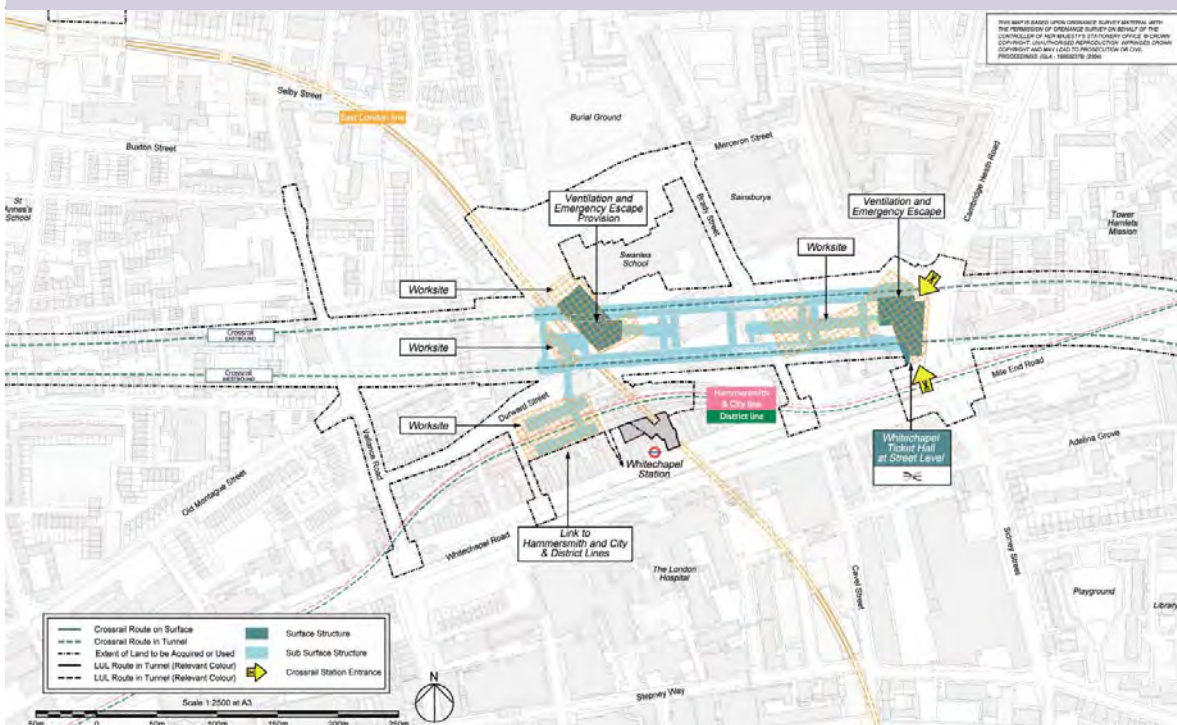
Jid-tareen ee wadada Durward ayaa laga sameyn doonaa gudaha goobta . In la xiro meelo dadku maro iyo in ciriiri laga dhigo wadooyinka xaafadeed ayaa loo baahan doonaa. Inta badan goobta gaari dhigasho ee suuqa Sainsbury waxaa isticmaali doonaa shirkada Crossrail inta dhismuhu socdo waxayna dib ugu noqon doonaan gaari dhigasho marka la dhameystiro isteeshinka.

Waa suurogal in haraaga tiyaatarka qarnigii 16-naad uu ka sii jiro goobtaan. Shirkada Crossrail way qiimeyn doontaa goobta marka la gaaro hawsha dhismaha.



Essex Wharf - Iftiin Wacag oo la qorsheeyey

Isteeshinka Whitechapel



Whitechapel

Crossrail Proposals

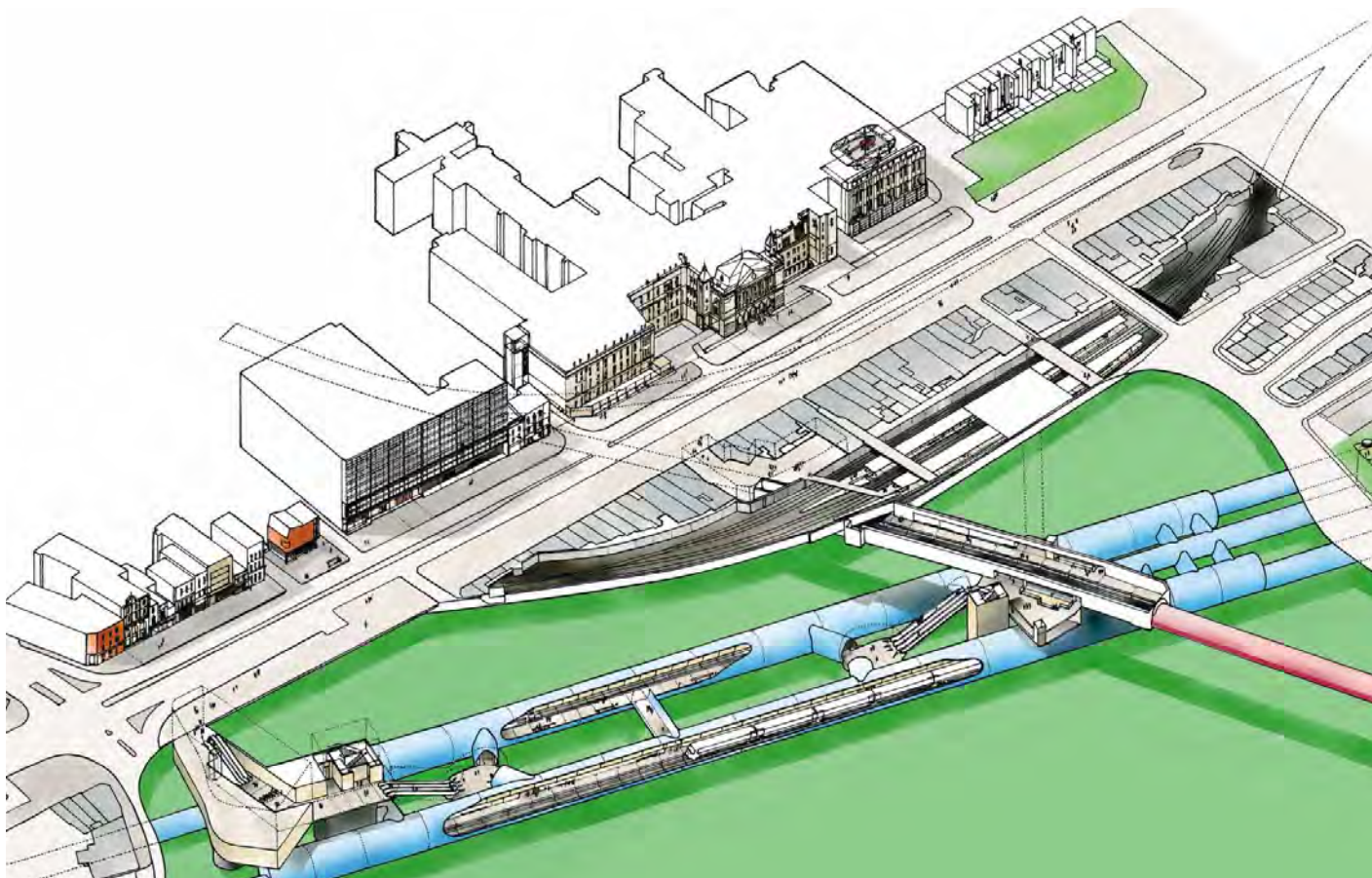


Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that excavated material from construction of the station would be transported from the station site east along Mile End Road and north along Grove Road to a holding area in an area of Mile End Park. The excavated material would then be moved west by a specially constructed conveyor across the Grand Union Canal and removed by rail from a railhead that at Mile End sidings.



Proposed Crossrail Ticket Hall at Cambridge Heath Road



Proposed Links with Existing Whitechapel Station

হোয়াইটচ্যাপেল

ক্রসরেলের প্রস্তাবনা

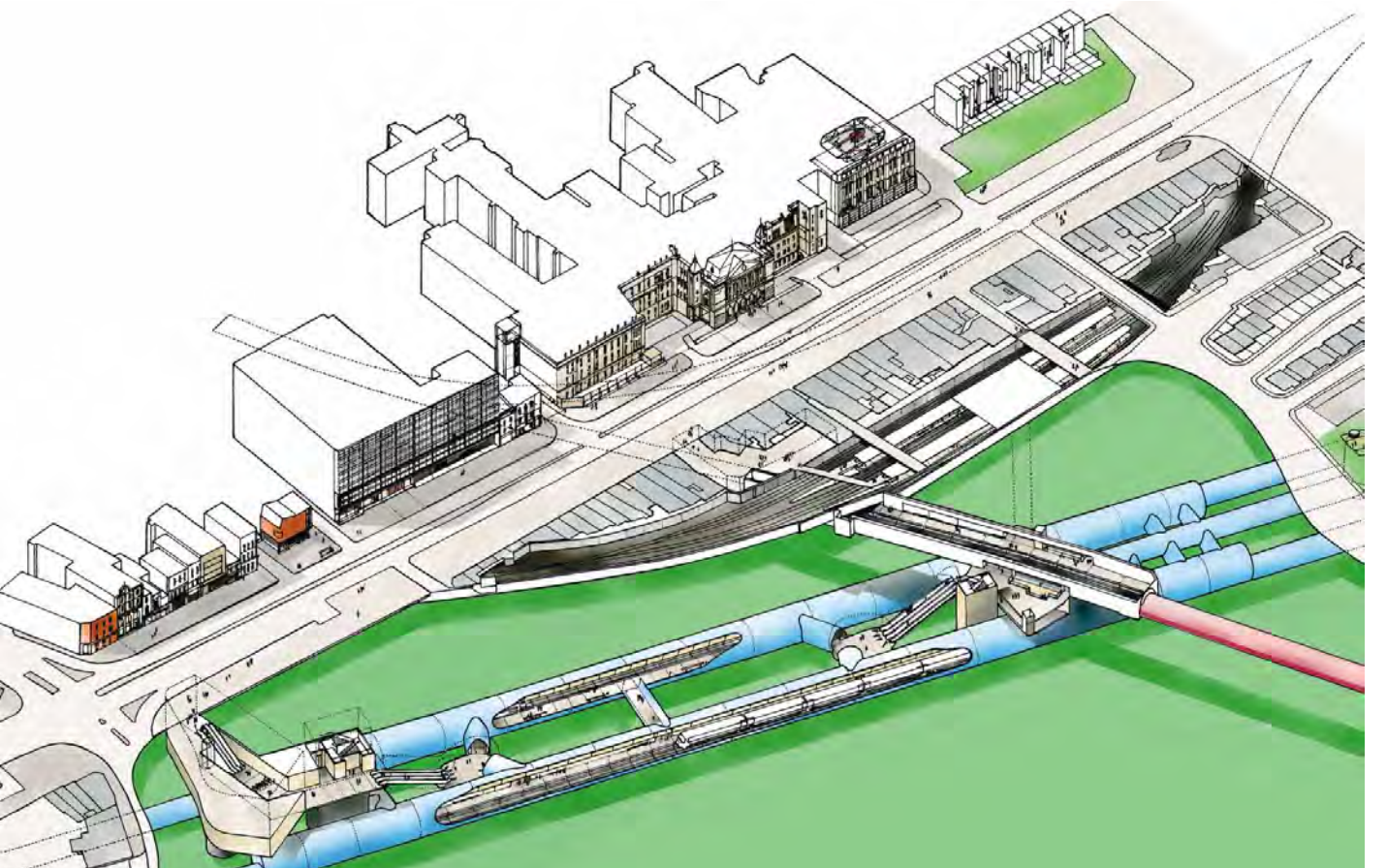


ট্রাফিক এবং যাতায়ত

প্রস্তাবিত ট্রাফিক রুট সম্বন্ধে ক্রসরেল আঞ্চলিক কর্তৃপক্ষের সাথে আলোচনা করবে। বর্তমানে আশা করা হচ্ছে যে নির্মাণস্থল থেকে উত্তোলিত মাটি পূর্ব দিক দিয়ে মাইল এন্ড রোড বরাবর এবং উত্তরে গ্রোভ রোড বরাবর নিয়ে যেয়ে মাইল এন্ড পার্কের একটা জায়গায় জমা রাখা হবে। এই উত্তোলিত মাটি পরে বিশেষভাবে নির্মিত কনভেয়ারের মাধ্যমে সরিয়ে ফেলা হবে যেটা গ্র্যান্ড ইউনিয়ন ক্যানেলের ওপার পর্যন্ত যাবে এবং এরপর তা মাইল এন্ড সাইডিং-এ রেলহেডের থেকে রেলের মাধ্যমে অপসারণ করা হবে।



কেমব্রিজ হীথ রোডের প্রস্তাবিত ক্রসরেল টিকেট হল



বিদ্যমান হোয়াইটচ্যাপেল স্টেশনের সাথে প্রস্তাবিত সংযোগ

Whitechapel

Qorshayaal Shirkada Crossrail

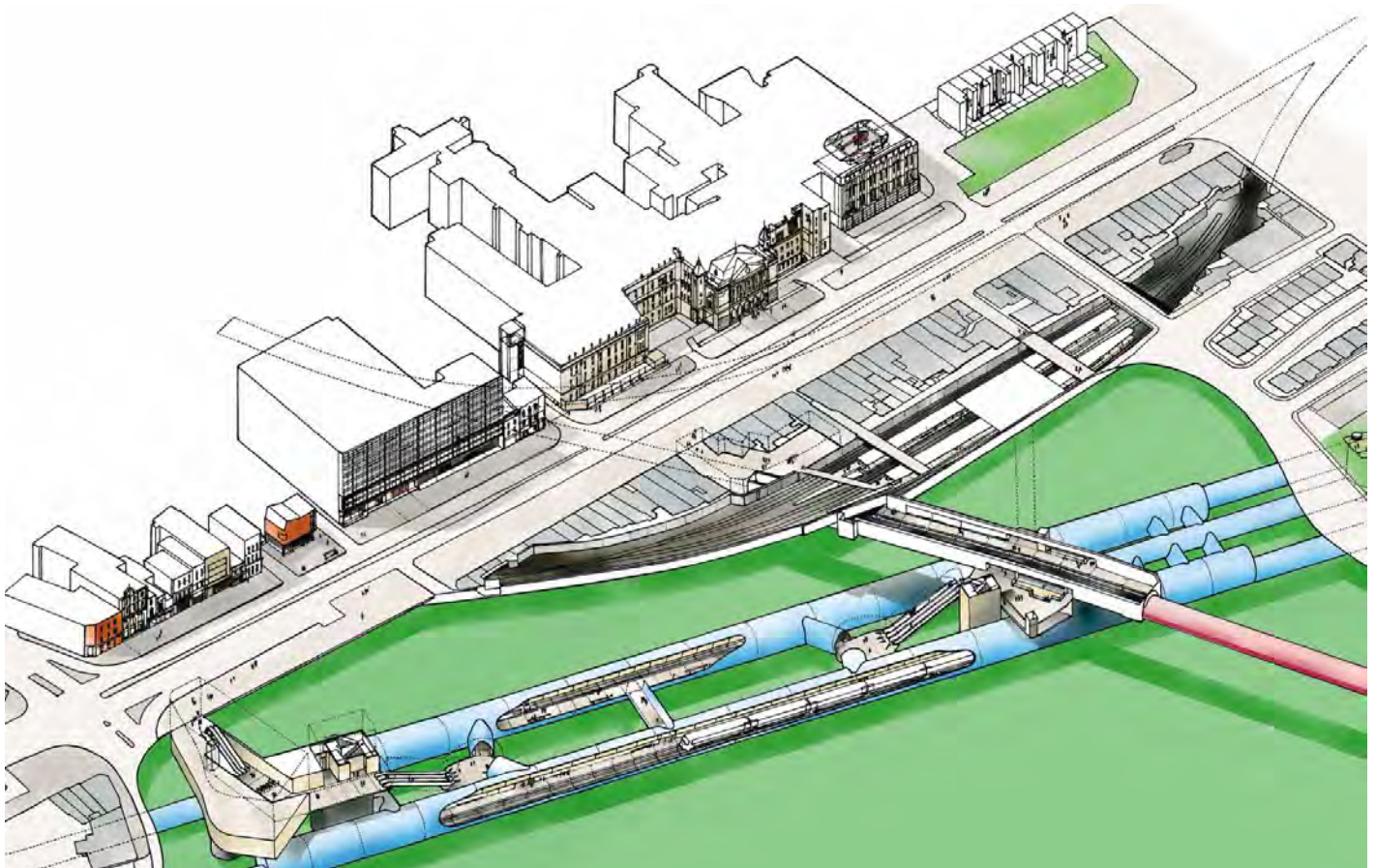


Gawaari iyo Meel u marid

Shirkada Crossrail waxay wadatashi kala yeelan doontaa maamulayaasha xaafad wadooyin gawaari marto oo la qorsheeyey. Waxaa hadda la rajeynayaa in waxyaabaha laga soo qodo dhismaha isteeshinka laga daabuli doono goobta uu isteeshinka ku yaallo ee bariga dhanka Wadada Mile End Road iyo waqooyiga dhanka Wadada Grove Road oo la geyn doonoa goob lagu hayo oo kamida Beerta Mile End (Mile End Park). Waxyaabaha la soo qoday waxaa kaddib loogu dhaqaajin doonaa galbeed gaadiid si gaara loo sameeyey isagoo ka gudbin doona kanaalka Grand Union (Grand Union Canal) laguna sii fogeyn doonaa tareen oo ka bixi doonaa madaxa hore ee jid tareen oo ku yaalla dhinaca jid tareenka ee isteeshinka Mile End.



Tikith Crossrail La qorsheeyey ee Wadada Cambridge Heath



Iskuxird La qorsheeyey ee Isteeshinka Whitechapel ee Hore u jiray

Whitechapel

Proposed Ticket Hall



Crossrail Whitechapel station would be situated between Fullbourne Street and Cambridge Heath Road. A new ground level ticket hall with an entrance at the junction of Whitechapel Road and Cambridge Heath Road would be provided.

A single flight of escalators and lifts from street level would provide access to the Crossrail platforms. Accommodation for Crossrail staff would be provided at first floor level.

At the western end of the Crossrail platforms, a second flight of escalators and lifts would provide interchange with the London Underground station, constructed within a shaft to the north of Durward Street in an area known as Essex Wharf. These escalators would lead to a new low-level concourse constructed underneath the northern end of the East London line platforms. Both stairs and lifts would be provided to enable the East London line to be reached from this concourse.

From this low-level concourse, a passageway would run under the District line platforms to a short flight of escalators and a lift giving access to the District line platforms. Emergency escape provisions for the station would be located in the Durward Street Shaft.

Ventilation shafts would be provided at both ends of the platforms, built within the Durward Street shaft at the west end and ticket hall structure at the east. The shafts would provide draught relief and assist in maintaining passenger comfort within the station.

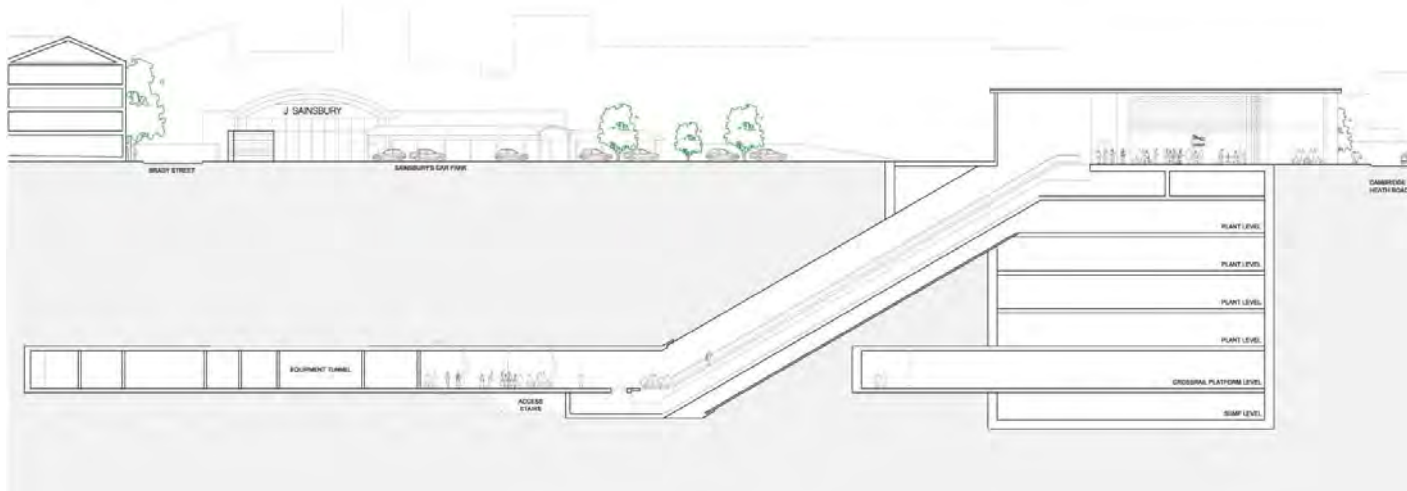


Proposed Cambridge Heath Road Ticket Hall



Proposed Cambridge Heath Road Ticket Hall

Proposed Crossrail Whitechapel Station – Section



হোয়াইটচ্যাপেল

প্রস্তাবিত টিকিট হল



ফুলবোর্ন স্ট্রিট এবং কেমব্রিজ হীথ রোডের মাঝখানে ক্রসরেল হোয়াইটচ্যাপেল স্টেশন নির্মাণ করা হবে। এখানে ভূমির উপরে একটা টিকিট হল, হোয়াইটচ্যাপেল রোড এবং কেমব্রিজ হীথ রোডের সংযোগস্থলে একটা প্রবেশের পথ তৈরী করা হবে।

রাস্তার লেভেল থেকে পরিচালিত একটা সিঙ্গেল ফ্লাইট এস্কেলেটর এবং লিফটের মাধ্যমে ক্রসরেলের প্ল্যাটফর্মে পৌঁছানো যাবে। প্রথম তলায় (ফার্স্ট ফ্লোর) ক্রসরেলের কর্মীদের থাকার জায়গার ব্যবস্থা করা হবে।

ক্রসরেলের প্ল্যাটফর্মের পশ্চিম প্রান্তে একটা দ্বিতীয় ফ্লাইট এস্কেলেটরের মাধ্যমে লন্ডন আন্ডারগ্রাউন্ড স্টেশানে যাতায়ত করা যাবে, এটা ডুরওয়ার্থ স্ট্রিটের উত্তরে একটা শ্যাফটের ভেতরে তৈরী করা হবে যেটা এসেন্স ওয়্যার নামে পরিচিত। এই এস্কেলেটরের মাধ্যমে ইস্ট লন্ডন লাইনের প্ল্যাটফর্মের উত্তর প্রান্তে নির্মিত একটা নতুন লো-লেভেল কোনকোর্সে যাওয়া যাবে। এক্ষেত্রে সিঁড়ি এবং লিফটের ব্যবস্থা থাকবে যাতে করে এই কোনকোর্সের মাধ্যমে ইস্ট লন্ডন লাইনে পৌঁছানো যায়।

এই লো-লেভেল কোনকোর্স থেকে একটা প্যাসেজওয়ে বেরিয়ে ডিস্ট্রিক্ট লাইনের প্ল্যাটফর্মের নিচে দিয়ে গিয়ে একটা স্বল্প দৈর্ঘ্যের এস্কেলেটর এবং লিফটে পৌঁছাবে যেগুলোর মাধ্যমে ডিস্ট্রিক্ট লাইনের প্ল্যাটফর্মে পৌঁছানো যাবে। ডুরওয়ার্থ স্ট্রিট শ্যাফটে জরুরী পরিস্থিতিতে বের হওয়ার ব্যবস্থা থাকবে।

প্ল্যাটফর্মের দুই পার্শ্বে বাতাস প্রবেশের শ্যাফট থাকবে, কিন্তু এটা পশ্চিমে ডুরওয়ার্থ স্ট্রিট শ্যাফট, এবং পূর্বে টিকেট হল স্ট্রাকচার পর্যন্ত বজায় থাকবে। এই শ্যাফটের মাধ্যমে স্টেশনটিতে মনোরম তাপমাত্রা বিরাজ করবে যার ফলে যাত্রীরা স্বস্তি পাবে।

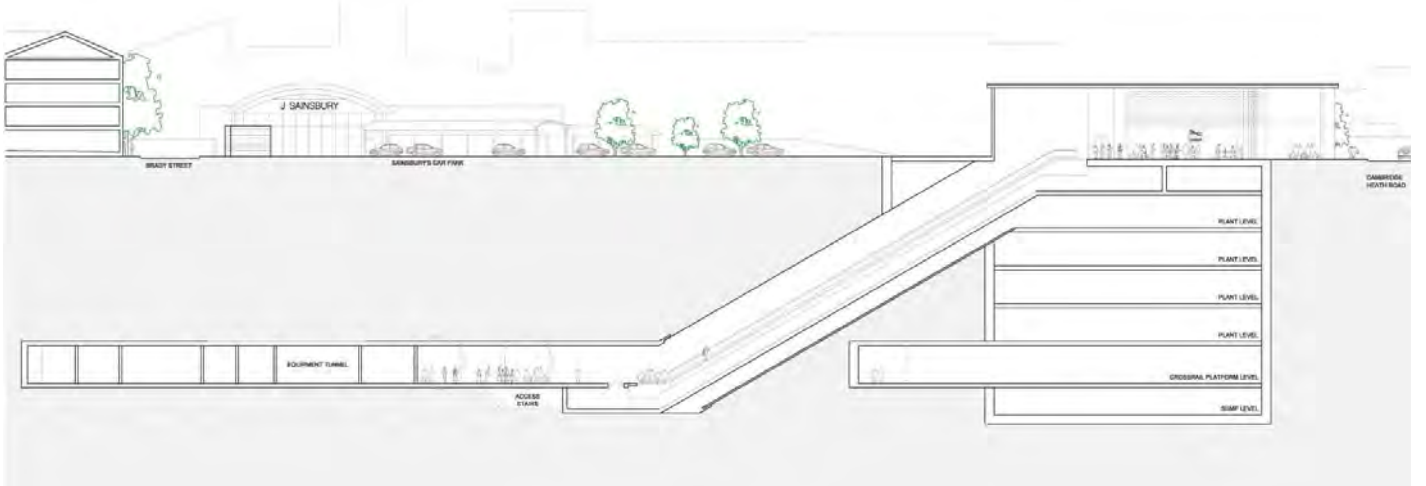


কেমব্রিজ হীথ রোডের প্রস্তাবিত টিকিট হল



কেমব্রিজ হীথ রোডের প্রস্তাবিত টিকিট হল

প্রস্তাবিত ক্রসরেল হোয়াইটচ্যাপেল স্টেশন - অংশবিশেষ



Whitechapel

Hool Tikidh La qorsheeyey



Shirkada Crossrail ee Isteeshinka Whitechapel waa lagu meeleyn doonaa inta u dhaxeysa Fullbourne Street iyo Cambridge Heath Road. Dhul siman oo cusub oo hool tikidho ah oo lahaanaya albaab laga galo oo laga sameynayo meesha ay iska jaraan wadooyinka Whitechapel Road iyo Cambridge Heath Road ayaa la hirgelinayaa.

Hal jaranjaro wiish ah iyo wiishash caadi ah oo wadada la siman ayaa bixin doonaa meel u sii maris goobta laga raacayo tareenka ee Crossrail. Guriyeyn loogu talagalay shaqaalaha Crossrail ayaa laga sameyn doonaa dabaqa koowaad.

Dhan dambe ee galbeed meesha laga raacayo tareenka ee Crossrail, jaranjaro wiish oo labaad iyo wiishah caadi ah oo looga bedesho isteeshinka tareenka dhulka hoostiisa mara ayaa laga sameyn doonaa, oo laga dhisayo in u jirta dherer hal bir tareen le'eg dhanka waqooyi ee wadada Durward Street goob loo yaqaanay Essex Wharf. Wiishashkan jaranjarada ah waxay u hogaamin doonaan jid ku xiris loo sii marayo oo laga dhisayo dhanka hoose ee waqooyiga dambe maxadada tareenka ee khadka tareenka East London. Labdan jaranjaro waxay keeni doonaan inay awood u siiyaan in khadka East London laga soo gaaro jidkan isku xiraya.

Jidkan hoose ee iskuxirka ah, jid duleel ah ayaa laga bixin doonaa dhulka ka hooseeya maxadada tareenka dhulka hoostiisa mara ee Distric Line socod yar oo laga imanayo dhanka jaranjarooyinka wiishka ah iyo wiishashka caadiga ahba taasoo keenaysa meel u maris maxada tareenka dhulka hoostiisa mara ee District Line. Biximo ka baxsasho Xaalado Degdeg ah oo loogu talagalay isteeshinka ayaa laga sameyn doonaa Birta Jid-tareen Durward.

Matooro hawo-siin ayaa lagu rakibi doonaa labada gees ee dambe ee maxadooyinka, lagu dhexsameyn doonaa gudaha Bir Jid-tareen Durward Street danka dambe galbeed iyo dhismaha hoolka tikidhada ee bariga. Matooro hawo-siinThe ayaa ka hortegi doona hawo-qalal caawini doonana raaxo siinta socotada ku jirta isteeshinka.



Hool Tikidh La qorsheeyey ee wadada Cambridge Heath Road



Hool Tikidh La qorsheeyey ee wadada Cambridge Heath Road

Crossrail La qorsheeyey ee Isteeshinka Whitechapel



Stepney Green Shaft

Crossrail Proposals



To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

Crossrail's proposed routes to Shenfield and Ebbsfleet would divide underground in the area of Stepney Green. A ventilation shaft would be required for each branch.

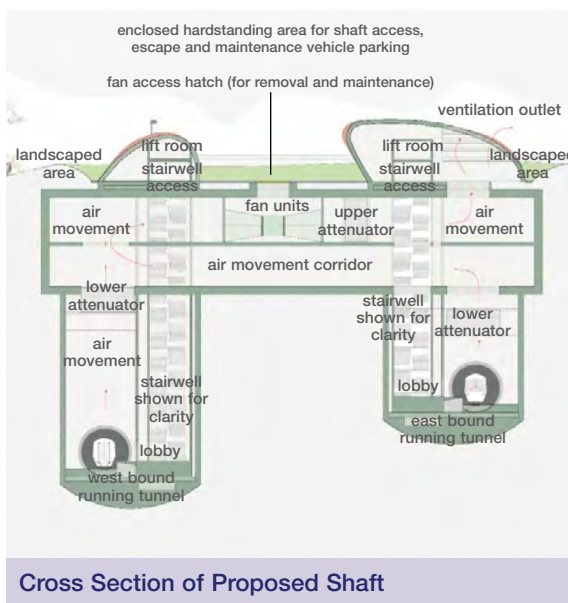
The proposed location for the ventilation shafts would be a strip of park between the existing Astro turf pitch and Garden Street.

The shafts would also provide emergency access and escape for the Crossrail tunnels. The ventilation equipment would be located in the two shafts.

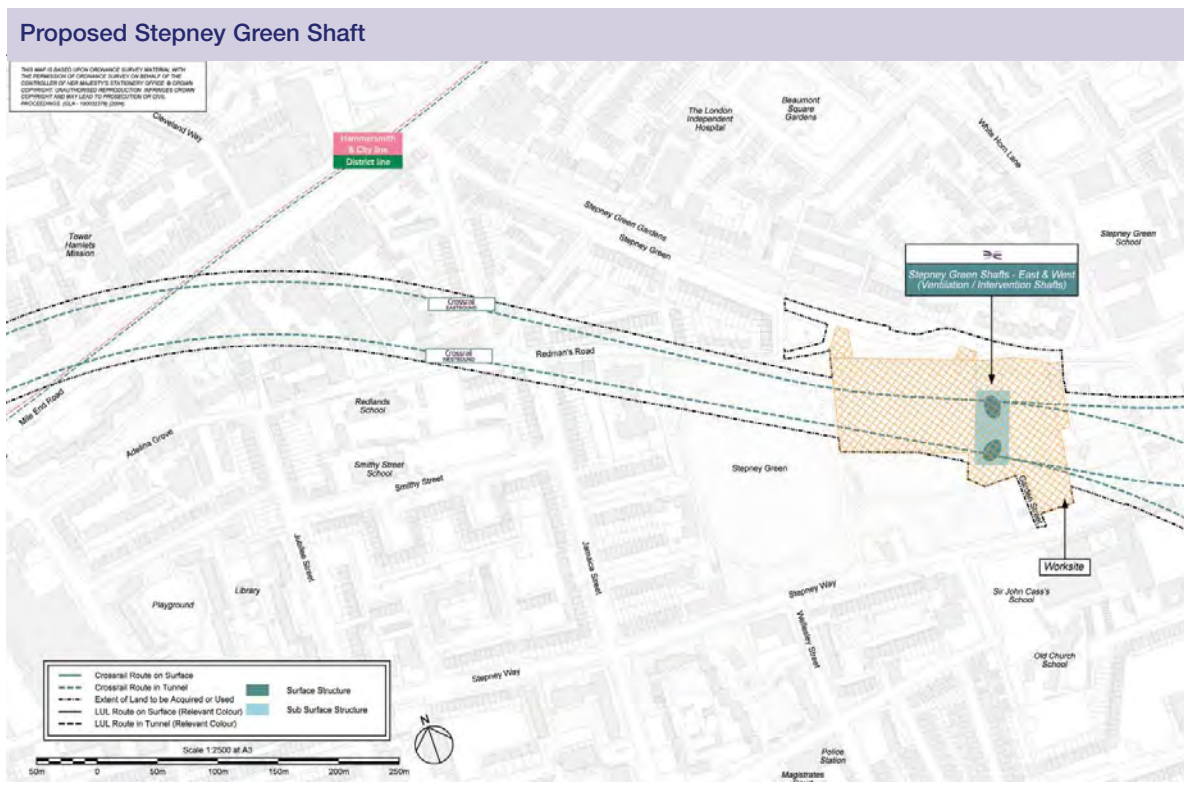
Each shaft would contain a staircase, some of the fan equipment and would be located over each of the tunnels.

The basement would house fans to push air into or out of the tunnels as required. The basement would hold noise reducing equipment and mechanical and electrical equipment for the operation of the fans.

These shafts would be used temporarily as construction shafts to enable the tunnel junction to be built.



Cross Section of Proposed Shaft



Stepney Green Shaft

Proposed Shaft Design



Part of the Stepping Stones Farm would be needed for a period during the construction of the shafts. Crossrail are consulting with the London Borough of Tower Hamlets regarding the proposals on any protective measures that may be necessary.

Stepping Stones Farm is a Site of Importance for Nature Conservation (Borough level) which would be temporarily affected by construction activities.

The site contains archaeological evidence of a 16th Century manor house, a non-conformist meeting house (c.1674), the remains of a congregational church (c.1862) and the remains of a Baptist college (c.1811). The construction of the shaft may result in loss of a portion of the 16th Century Manor House, but this would be subject to further archaeological study. The design of the construction worksite has been altered to ensure that all other remains on the site would be protected from damage.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated access to the worksite would be principally from Stepney Green.



Proposed Shaft Plan



Existing Area



Architect's Impression of the Proposed Shafts

Mile End

Crossrail Proposals



Mile End Sidings Railhead

There are relatively few locations near the Crossrail alignment where rail sidings and a railhead (the point where the trains are parked and loaded) for excavated material removal can be established. One location is at the Sand End sidings, Mile End.

The proposed sidings rail head would be located opposite Meath Gardens, Mile End, on the south side of the railway (west of the Grand Union Canal).

The conveyor from the Pedley Street worksite would run along the top of the current Eastern Main Line Viaduct moving excavated material east to the proposed railhead, where it would be transferred to waiting trains for onward removal via the Great Eastern Main Line to landfill sites outside London.

A holding area for excavated material would be established in an area of Mile End Park to the west of the Grand Union Canal. This would enable tunnelling operations to continue during times when trains may not be available. Material would be moved west from the park to the sidings by a second conveyor across the canal to the railhead. The holding area would be hoarded throughout the works. The remainder of the park would remain open during the works.

This holding area would also be used to hold excavated material from the construction of Whitechapel station.

The railhead and holding area would be in operation for approximately four years.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is anticipated that lorries would enter and leave the site from a new access point on Grove Road, approaching from the south.

Initially it would be necessary for excavated material from the construction of Whitechapel station and the Hanbury Street shaft to be removed by road to the proposed holding area at Mile End Park, as the tunnels would not yet be available.

Environmental Issues

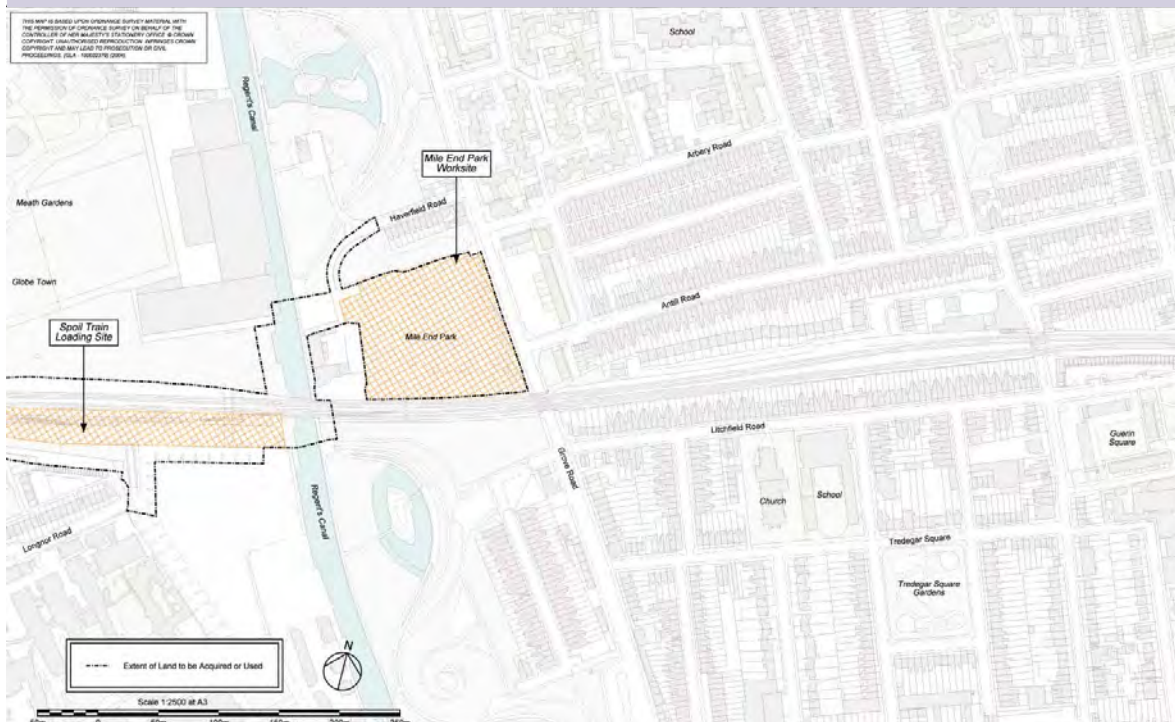
The likely environmental effects include the temporary visual intrusion around Mile End Park resulting from the presence of stockpiles and conveyors.

The conveyor between Pedley Street and Mile End Park is likely to be a relatively small and unobtrusive structure, mostly located on the existing viaduct.

It is acknowledged that Mile End Park is designated as a Site of Importance for Nature Conservation (Borough Level).

All proposals are being developed in consultation with the relevant bodies including the London Borough of Tower Hamlets, British Waterways and the Environment Agency.

Mile End Proposals



Mile End Park Shaft

Crossrail Proposals



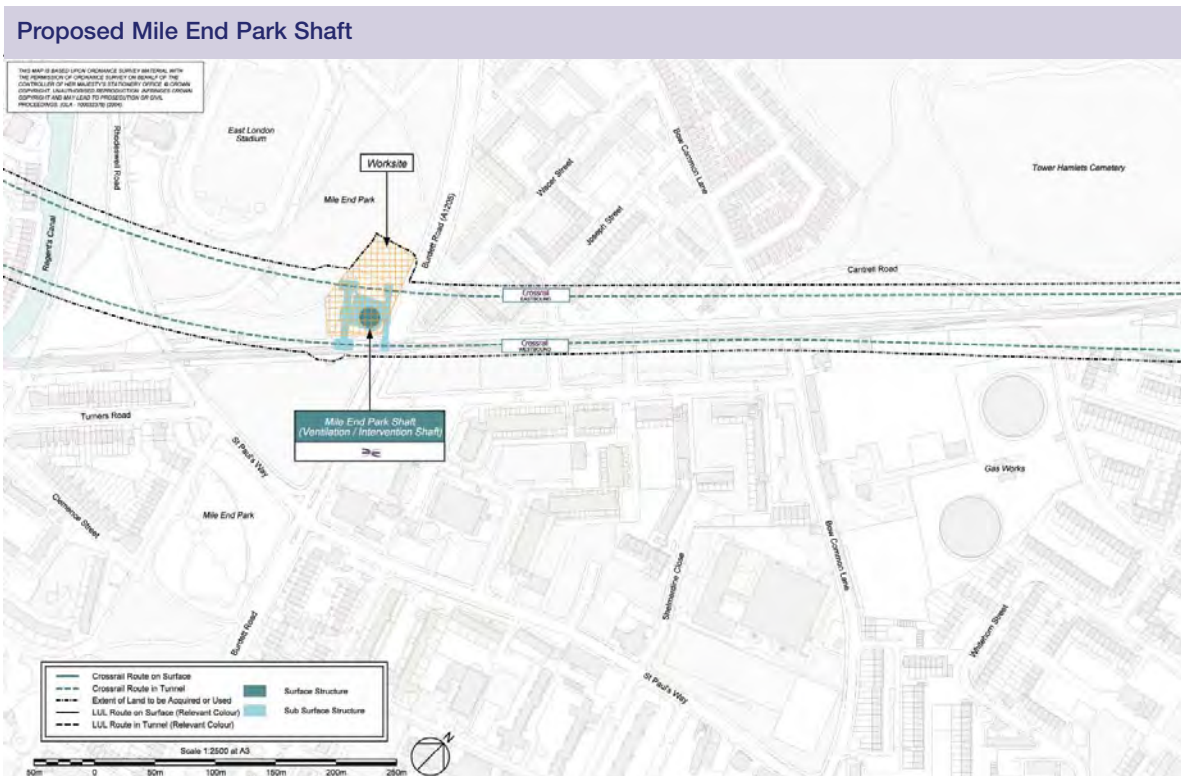
In order to ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

The Mile End Park shaft would be used for ventilation and emergency intervention and evacuation. Mechanical and electrical plant rooms would be located in the basement with access to the ventilation fans through the surface structure.

The proposed shaft would be located within the south east corner of Mile End Park.



Architect's Impression of Mile End Park Vent Shaft



Mile End Park Shaft

Proposed Shaft Design



The location and appearance of the shaft above ground has been designed to blend in with the existing open space and the current proposals to extend Mile End Park Stadium. Consequently, the shaft would be located close to Burdett Road.

The surface structure of the shaft has been designed to enable it to be used by members of the public as a platform to watch events and activities in the park.

Mile End Park is a Site of Importance for Nature Conservation. The shaft forms a new permanent structure in an open setting and as such would affect the landscape of this open space and its users. There would be an area of permanent and temporary works, but care has been taken to locate the shaft in an undesignated corner of the park.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. Crossrail anticipates site access would be directly from the A1205 Burdett Road.



Architect's Impression of Mile End Park Vent Shaft – Viewing Platform

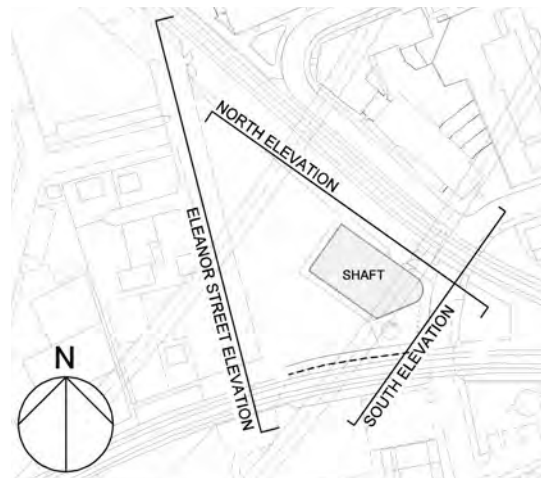
Eleanor Street Shaft

Crossrail Proposals (2)

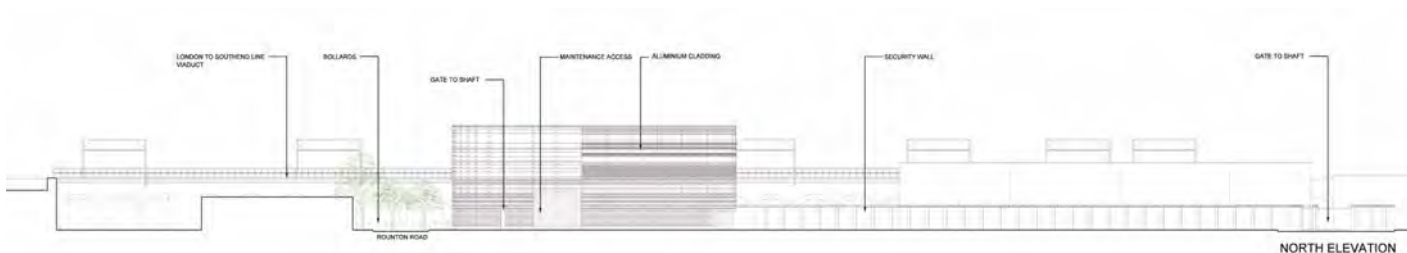


Traffic and Access

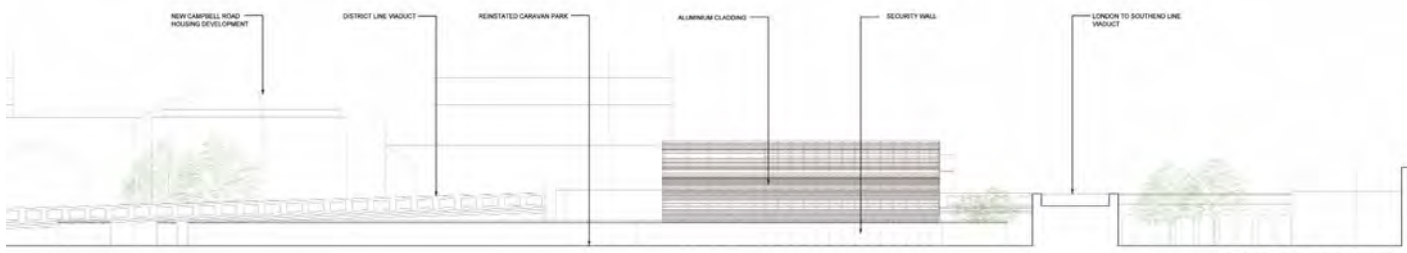
Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that the main point of access for the site would be established off Eleanor Street, with a secondary route being provided off Rounton Road.



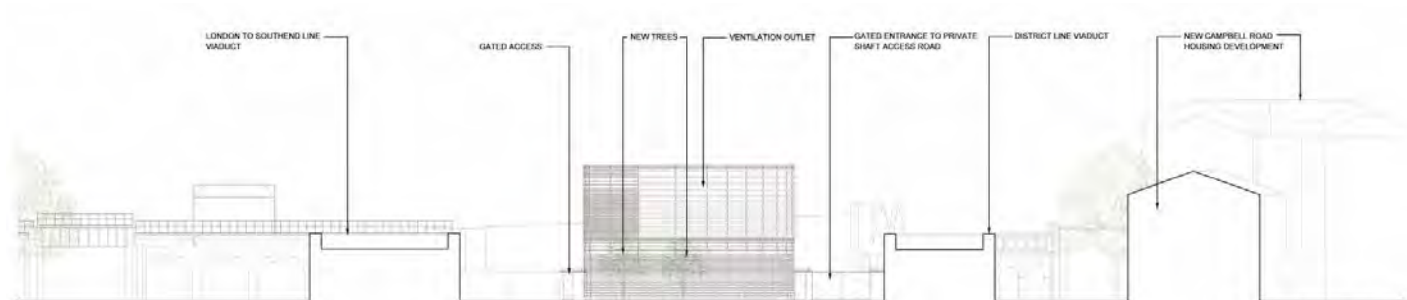
Location of Proposed Shafts



Proposed North Elevation



Proposed Eleanor Street Elevation



Proposed South Elevation

Lowell Street Shaft

Crossrail Proposals



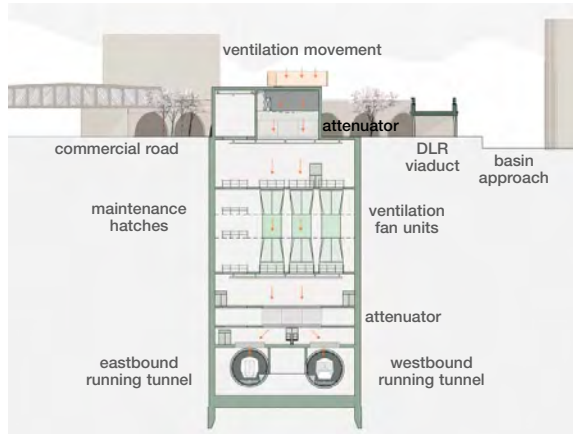
To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

Lowell Street shaft would be located at 610 Commercial Road, adjacent to the Limehouse Basin, and would incorporate infrastructure for tunnel ventilation, access to the shaft and tunnels and passenger evacuation in the event of an emergency.

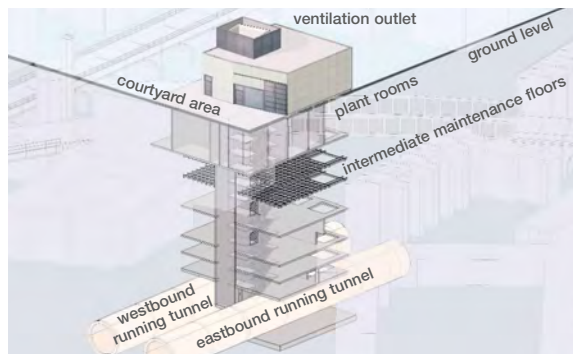
To provide tunnel ventilation, the shaft building would house mechanical equipment and below ground fans. The intake and outlet for the fans would be at roof level. Intervention and evacuation stairs and a lift would be provided within the shaft.

Evacuation from the tunnels would be completed in the courtyard or in the area bounded by the DLR viaduct to the south.

It is proposed that the site would be cleared of all buildings with the exception of the listed water tower in the south eastern corner of the site.

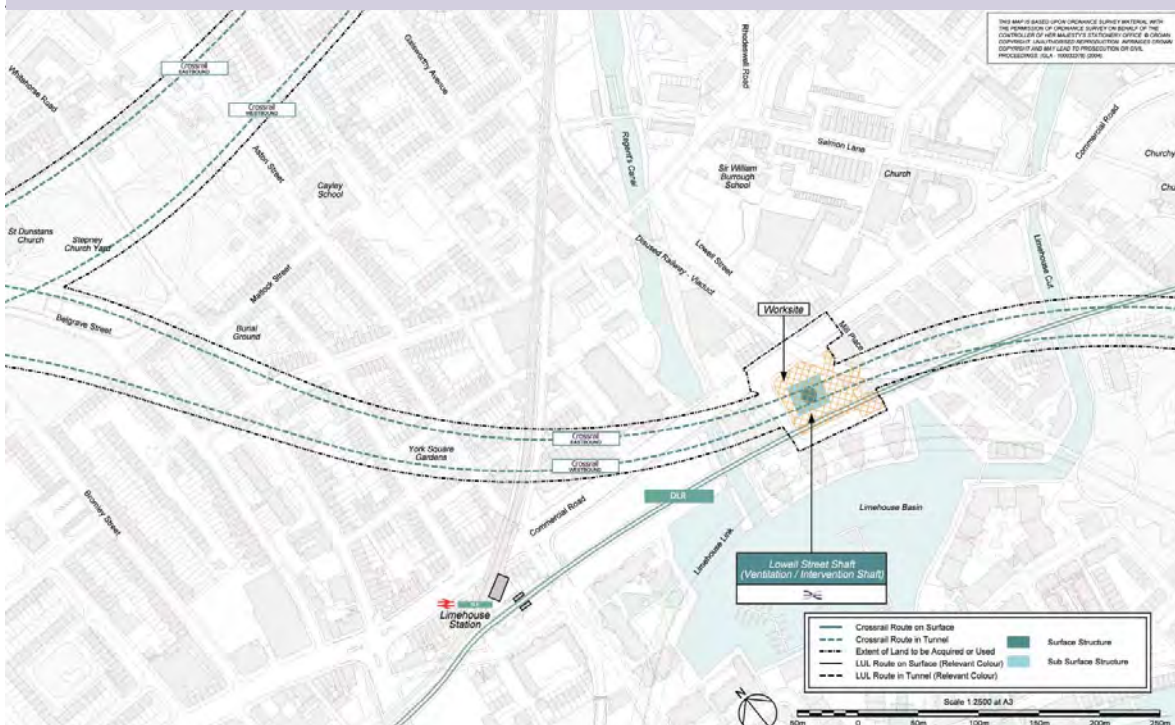


Lowell Street Shaft Section



Lowell Street Shaft

Lowell Street Shaft



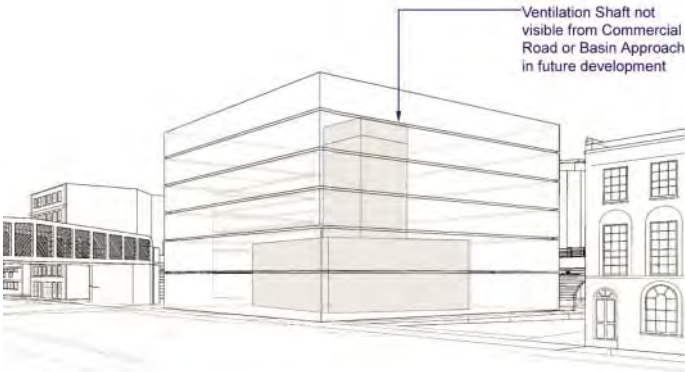
Lowell Street Shaft

Proposed Shaft Design

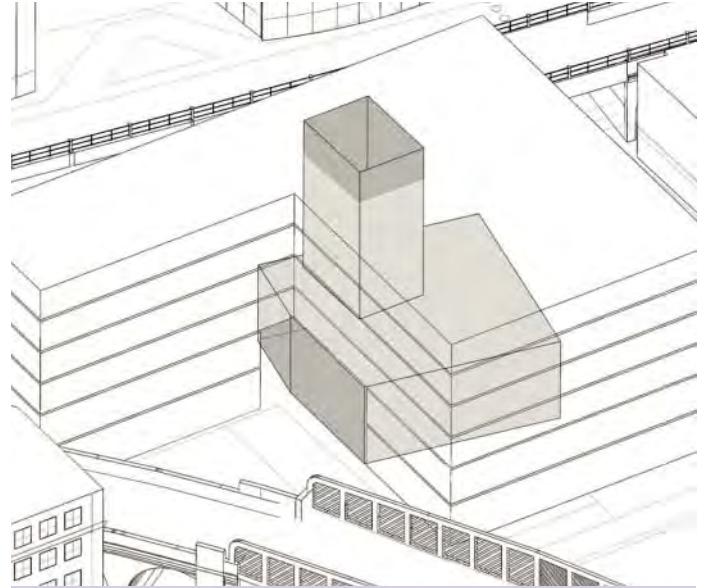


Future Development

It is possible that a development could be built on the remaining site area as illustrated.



Possible Future Development



Possible Future Development

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that lorries would enter and leave the site from a new access point on Commercial Road. Lorries would exit via Mill Place and Commercial Road. The permanent shaft could include a courtyard for maintenance and emergency vehicles. A separate site access would be provided to enable evacuation from the tunnels.



Proposed Permanent Access from Commercial Road



View of the Current Site from Basin Approach

Hertsmere Road Shaft

Proposed Shaft Design



The shaft entrance would be at pavement level from an off-street gated vehicle hardstanding area. Inside the shaft, stairs and a lift would be provided between ground and track levels. Below ground level, a basement would be provided for electrical and mechanical equipment.

Trees on the site would be retained where practical. Following construction of the shaft and car park, any trees removed would be replaced and complemented by appropriate landscaping.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. Due to the weight restriction on Cannon Drive, it is currently anticipated that lorries would enter and leave the site from Westferry Road (A1206) via the Westferry Circus low-level route.



Proposed Site Plan

Isle of Dogs (Canary Wharf) Proposed Station Design (2)

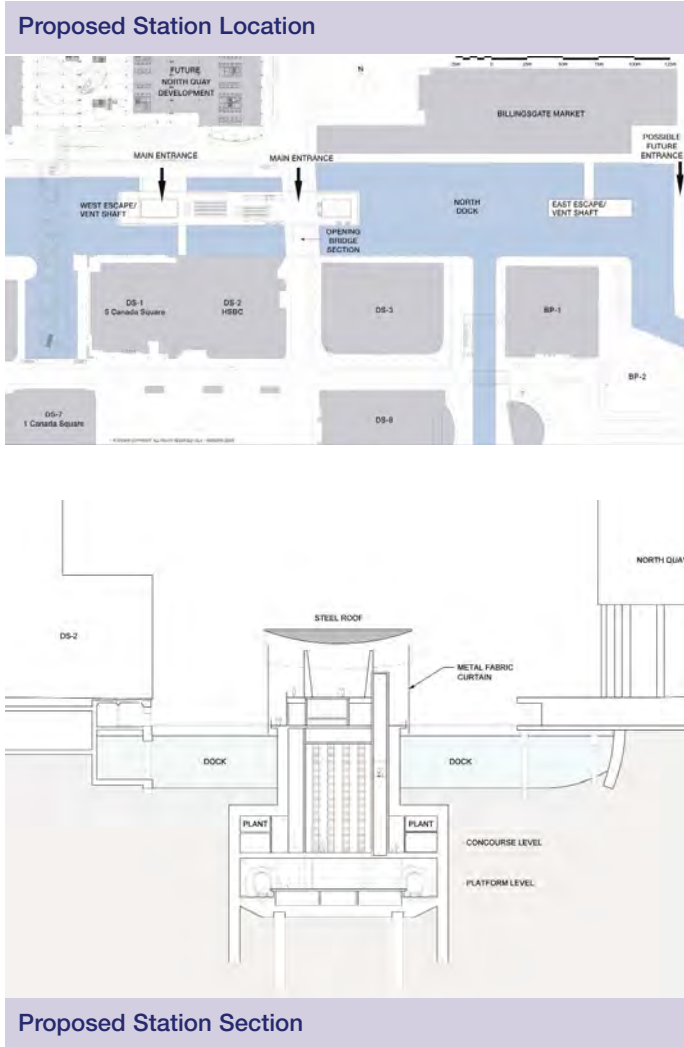


Building Crossrail Isle of Dogs Station

The area of North Quay between Billingsgate and the Docklands Light Railway bridge would be used as the main worksite for construction of the station and tunnels west of the station. A second worksite would be located within the car park of Billingsgate Market, at the eastern end of the North Dock. A watertight structure known as a “cofferdam” would be constructed within the North Dock to enable the station to be built.

The tunnel boring machines for the drive to Stepney Green would be assembled and launched from the site of the station. During the period of station construction, access for vessels wanting to enter Blackwall Basin and Poplar Dock would be obstructed by the Crossrail construction work. Measures would be taken to protect the Grade I listed West India Quay. Banana Wall would not be demolished to construct the Isle of Dogs station and measures would be provided to protect the Wall during construction of the station.

Crossrail are currently carrying out surveys to determine the aquatic ecology (water, wildlife and plants), water quality and sediment within the dock area which would be used to help formulate the construction methodology in relation to the draining of the part of the dock that would be within the cofferdam.



Proposed Station Concourse



Isle of Dogs (Canary Wharf) Proposed Station Design (3)



Traffic and Access

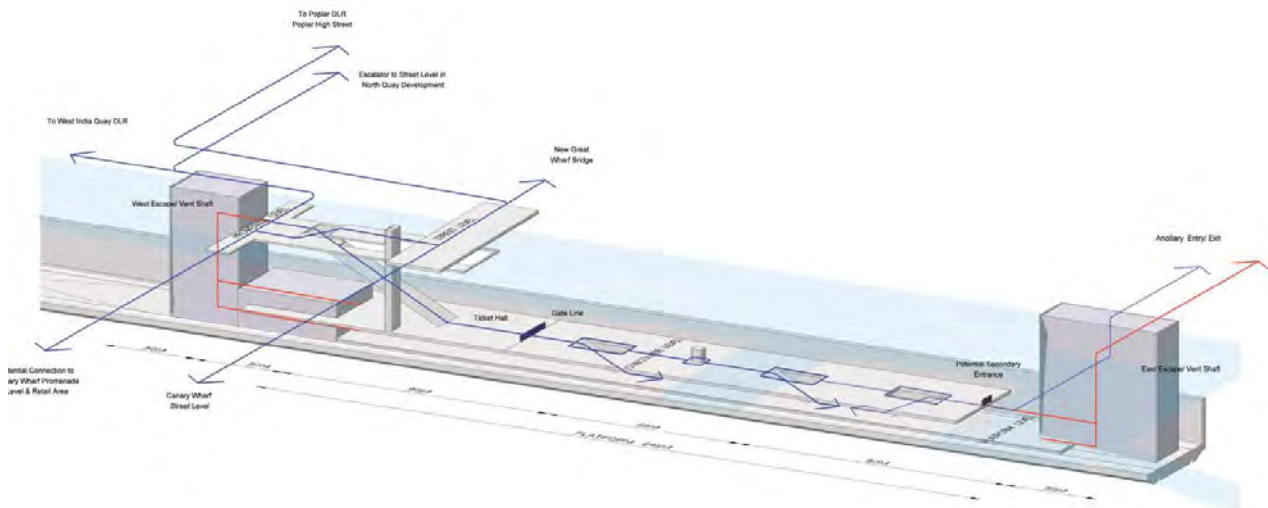
Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that the main access point for the worksite would be off Aspen Way (A1261). To reduce lorry movements, Crossrail propose to deliver and remove some construction material and excavated material by barge. The station worksites and removal of the Great Wharf Bridge would require temporary pedestrian and vehicular diversions to be put in place.



Proposed Isle of Dogs Station – Architects’s Model



Proposed Isle of Dogs Station – Architects’s Impression



Proposed Isle of Dogs Station – Circulation Diagram

Blackwall Way Shaft

Crossrail Proposals



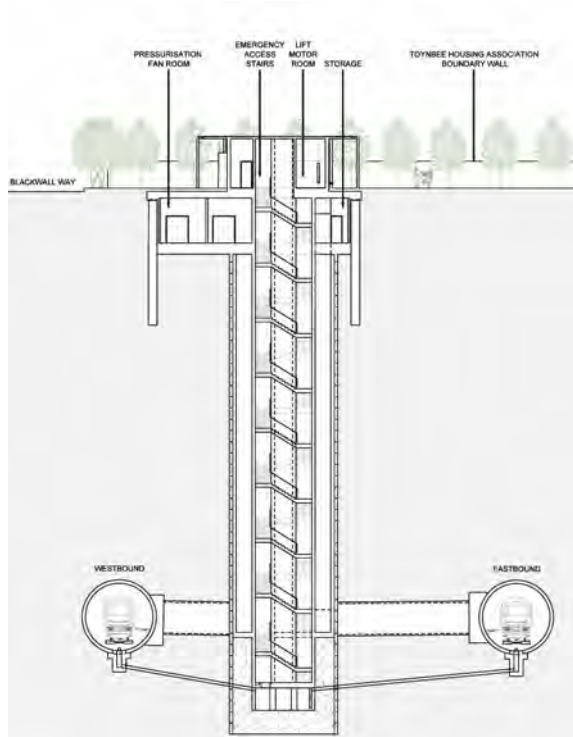
To ensure the safe running of the railway, the London Fire and Emergency Planning Authority require tunnel access shafts to be provided at no more than 1 kilometre apart.

The shaft would be located at Blackwall Way, adjacent to East India station. It would be situated at the north eastern end of the car park behind an existing residential development. It would provide emergency service access to the Crossrail tunnels and would incorporate a central lift and intervention stairwells.

The shaft has been designed to have limited surface impact, with plant rooms being located in the basement, and to reflect the character of the buildings on either side.

Traffic and Access

Crossrail will consult local authorities on proposed traffic routes. It is currently anticipated that access to the site lorries would be from Aspen Way via Preston Road.



Proposed Blackwell Way Shaft Section

Proposed Blackwall Way Shaft

