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21. Greenwich Route Section – Environmental Baseline and Assessment of Impacts

21.1 Overview of Greenwich Route Section

- 21.1.1 The Greenwich route section of the Hybrid Bill proposals comprises the south-east route from the Thames Crossing to the boundary with the London Borough of Bexley at Abbey Wood station.

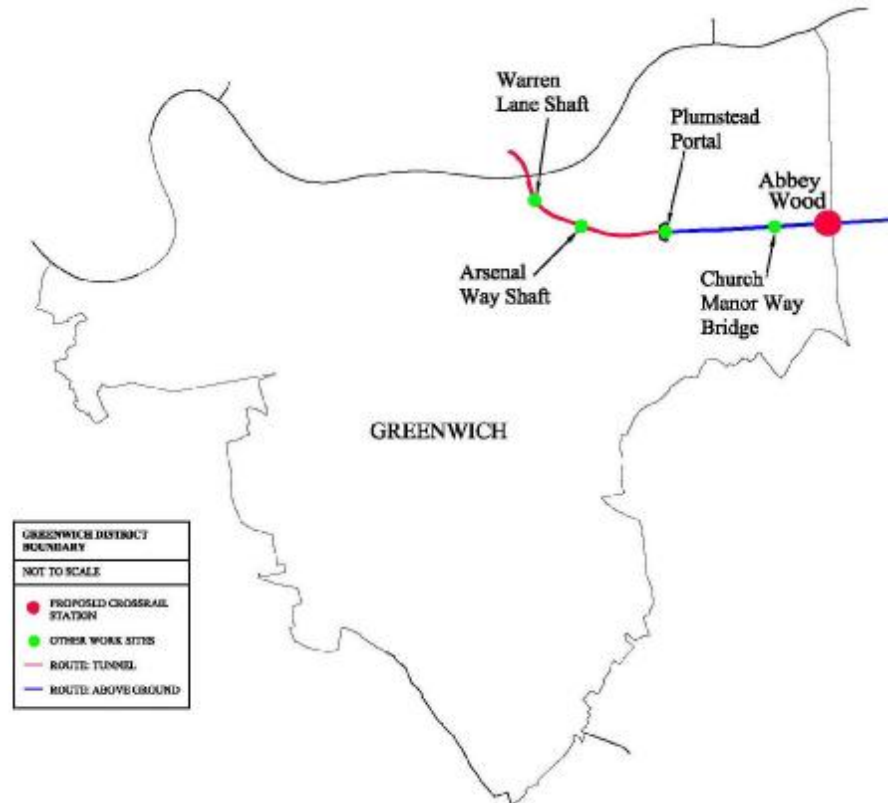


Figure 22.1: Location of Crossrail stations and worksites in L.B. Greenwich

- 21.1.2 The route crosses the Thames in a deep level tunnel that runs from North Woolwich to Plumstead. The tunnel runs in a south-easterly direction beneath the Royal Arsenal in Woolwich and parallel to Plumstead Road. The route emerges to join the North Kent Line to the east of Plumstead station. The North Kent line will be widened from two to four tracks from the Plumstead portal through to Abbey Wood.
- 21.1.3 The main above ground works comprise two ventilation and emergency intervention points in the Woolwich Arsenal complex at Warren Lane and Arsenal Way and the Plumstead portal.
- 21.1.4 Passive provision will be made for a station to be constructed at Woolwich at a later date but the Hybrid Bill does not seek powers to construct a station at Woolwich.

Statutory Development Plan

- 21.1.5 The statutory development plan comprises the saved Greenwich Unitary Development Plan (adopted November 1994) and the London Plan (adopted February 2004).
- 21.1.6 The London Borough of Greenwich is in the process of reviewing its UDP and published a 2nd Deposit Draft in April 2004. Under the transitional arrangements brought into force by the Planning and Compulsory Purchase Act 2004, the Council is continuing the process of adopting the UDP.

21.2 Policies relevant to all worksites in Greenwich

Transport & Traffic Management

- 21.2.1 The proposals fully accord with Policy M1 of the saved UDP and policy M3 of the emerging UDP which seek to promote and accommodate the maintenance and improvement of public transport.
- 21.2.2 Policy M6 of the emerging UDP identifies rail schemes that the Council supports and will pursue with the relevant agencies. Crossrail is one of these schemes. The proposals therefore deliver a key planning policy objective of the UDP.
- 21.2.3 The Council promotes and supports the provision of a station at Woolwich on the Crossrail network (policy TC6, emerging UDP). The proposals do not make provision for a station at Woolwich, although passive provision will be made so that a station could be constructed at a later date.
- 21.2.4 However, Crossrail will significantly enhance rail and underground services in Greenwich. In the long term, Crossrail will significantly improve rail facilities within Greenwich by providing a new station at Abbey Wood, improving the frequency of services and opening up new journey opportunities.
- 21.2.5 The Crossrail ES contains a Transport Impact Assessment (TIA) for both the construction and operational phase that identifies the likely significant impacts arising from the project. This complies with Policy M1a of the emerging UDP.
- 21.2.6 The track widening works will result in temporary but significant disruption to rail services between Plumstead and Abbey Wood for the duration of construction. This is identified as a significant temporary impact in the Crossrail ES but it is not considered to be a land-use planning issue.

Environment

- 21.2.7 The Council seeks to protect all elements of the environment and reduce the impacts of pollution in accordance with policies E1 and E2 of the saved UDP and SE2 of the emerging UDP.
- 21.2.8 Alternative locations for Crossrail stations, ventilation shafts, tunnel portals and other infrastructure elements have been appraised during the development of the preferred scheme, taking into account environmental constraints.
- 21.2.9 The mitigation measures contained in the Crossrail Environmental Statement describe how the construction of the project will be managed to ensure that the impacts will be controlled and mitigated as a minimum. The nominated undertaker will continue to work with the London Borough of

Greenwich to minimise the environmental impacts of the project in the detailed design of the scheme and in agreeing appropriate control over construction.

- 21.2.10 The proposals will result in the loss of rail-side vegetation between Plumstead Portal and a point approximately 1,000 metres east of Abbey Wood station to accommodate the track widening. No designated nature conservation areas are affected by the works but the Crossrail ES has identified a significant cumulative adverse ecological impact. While the loss of vegetation at any single worksite, assessed later in this chapter, is not significant it contributes to the cumulative significant impact along this route section.
- 21.2.11 There are no specific planning policies in the UDP protecting nature conservation in North Kent Line corridor. However, policy D9 of the saved UDP and policy D3 of the emerging UDP seeks to take account of ecological features and to protect trees. Where it is agreed that trees can be felled, the Council will seek appropriate replacement planting. The proposals are contrary to policy on the basis of the cumulative loss of habitat and trees.

Amenity (e.g.: Noise, Vibration, Air Quality)

- 21.2.12 The Crossrail proposals could potentially impact upon residential amenity in the short term due to construction noise and traffic.
- 21.2.13 The Crossrail ES has reported that with the mitigation measures set out in appendix B1 of the Crossrail ES in place, including sound insulation and site screening a number of residential properties will be affected by significant noise impacts. The proposals will therefore be temporarily contrary to policy E6 of the saved plan and policies SE2 and E1 of the emerging plan. The nominated undertaker will continue to work with the London Borough of Greenwich to minimise these impacts through the detailed design of the scheme and in agreeing appropriate control over construction.
- 21.2.14 The Crossrail ES states that no significant residual permanent noise or vibration impacts are predicted to occur.
- 21.2.15 The proposals will not result in any significant environmental impacts on air, ground or water quality.
- 21.2.16 The Crossrail ES has concluded that the loss of vegetation as part of the track widening works will have adverse impacts on visual amenity for a large number of properties near the railway. This is contrary to saved plan policy D4 which seeks to harmonise development with its surroundings and policy E7 of the emerging plan. This impact will be reduced, where possible, by replacement planting.

Design

- 21.2.17 General design requirements for development within Greenwich are set out by Policy D8 of the saved UDP and Policy D1 of the emerging UDP.
- 21.2.18 The provisions of the hybrid Bill deem planning permission to be granted for the authorised works to construct the railway. The Bill provides for a special planning regime for the approval of detailed design by the local authority at a later date. At this stage, an assessment of the impact on townscape has been made on the basis of scale, height, and siting of the ticket halls and other related structures.

21.2.19 On the basis of this information, the Crossrail ES has concluded that there will be no significant impacts on the townscape arising from the permanent portal structures at Plumstead and the new station buildings at Abbey Wood.

21.3 Warren Lane Shaft Worksite (Window SE4)

Significant Characteristics of Site and Surrounding Area

- 21.3.1 Warren Lane Shaft is located on the corner of Warren Lane and Beresford Street. The site is currently occupied by a derelict warehouse building.
- 21.3.2 Greenwich Millennium Park (also known as Royal Arsenal Gardens) and the River Thames are situated to the north of the site; to the east is a corridor of land belonging to the London Electricity Board; to the south a number of commercial/light industrial properties exist; Beresford Street and a car parking area are located to the west.
- 21.3.3 In a broader context, the site lies to the north of Woolwich town centre and on the edge of the Royal Arsenal site. The site is prominent located facing the River Thames.

Overview of proposals

- 21.3.4 A shaft is proposed to provide intervention and ventilation to the running tunnels between North Woolwich Portal and Sydney Street Shaft (Arsenal Way).

Permanent Works

- 21.3.5 The shaft will be located on the corner of Warren Lane and Beresford Street and will contain EIP and ventilation facilities. The shaft will be 13.5 m in diameter and a building (10 m tall by 18 m in diameter) will be constructed on the surface to house emergency intervention and ventilation equipment.

Temporary Works

- 21.3.6 The construction of Warren Lane shaft including fitting out and commissioning will take place over a period of approximately four years.
- 21.3.7 To accommodate Warren Lane shaft a derelict warehouse building located opposite Rope Yard Rails will be demolished.
- 21.3.8 All materials incoming and outgoing from the Warren Lane worksite will be transported by road. The worksite will generally be accessed from the A205 South Circular via Woolwich High Street although the A206 Plumstead Road will be used to transport excavated material to the jetty at Manor Wharf. The worksite will be served by up to 15 lorries per day during the 72 week peak construction period, and approximately nine lorries per day at other times.

Significant extant planning permissions & proposals

- 21.3.9 The Warren Lane shaft site lies within the Royal Arsenal which benefits from outline planning permission for a large scale residential led mixed use development.

Assessment of Impacts

Design

- 21.3.10 The Crossrail ES states that the design of Warren Lane shaft will integrate with the park and its location will enhance the 'gateway' entrance to the park

from Warren Lane. The building surround will be detailed to integrate the structure with the existing levels and features of the park. Despite the adverse impacts due to the loss of a small part of the park and the requirement to maintain access to the shaft, overall landscape impacts will be positive, although not significantly so. The proposals will therefore comply with policies D2, D4 and D8 of the saved UDP and Policies D1, W1 and W2 of the emerging UDP which seek a high quality of design in new development especially given its waterfront location.

- 21.3.11 The proposals will not impinge on the local views 'St. Marys Churchyard towards Mast Pond Wharf and beyond' and that are identified in the saved UDP (policy D17) and emerging UDP (policy D26) and will not therefore conflict with these policies.

Historic Environment

- 21.3.12 The site lies within an Area of Archaeological Potential as defined by the saved and emerging UDP. The site has been subject of an archaeological evaluation and the proposals include mitigation measures to preserve any remains by record. This reduces any significant impact and the proposals therefore accord with policies D27A and D27B of the saved UDP and D29A and D29B of the emerging UDP.

Open Space

- 21.3.13 The emerging plan designates the Greenwich Millenium Park Community Open Space. Policy O6 of the emerging plan seeks to safeguard community open space from development. As Warren Lane shaft worksite is within the park there is a temporary but significant conflict with policy. The conflict is significant because the site lies within an Area of Open Space Deficiency.

21.4 Policies relevant to Arsenal Way Shaft Worksite (Window SE5)

Significant Characteristics of Site and Surrounding Area

- 21.4.1 The site comprises part of a car park that serve industrial and business units at the Royal Arsenal. The industrial buildings lie immediately to the north and Plumstead Road lies to the south to the south. There is a belt of mature trees running along the southern boundary of the site with Plumstead Road.
- 21.4.2 Substantial residential developments within the Royal Arsenal are under construction to the north and west of the site.

Overview of proposals

- 21.4.3 The proposal is for an intervention, excavation and ventilation shaft.

Permanent Works

- 21.4.4 The shaft will be located at the south eastern end of Woolwich Barracks Car Park with Plumstead Road to the south. It will have a diameter of 16 m and contain ventilation, EIP and emergency evacuation facilities. Two surface structures will also be constructed (8 m in height).

Temporary Works

- 21.4.5 The construction of Arsenal Way shaft including the installation of equipment and commissioning will be undertaken over a period of approximately three and a half years.
- 21.4.6 For the construction works at Arsenal Way, works will be carried out at Arsenal Way worksite which will be located at the eastern end of the Royal Arsenal car park. The site is bounded by Plumstead Road to the south, an industrial estate (with workshops and warehouses) to the west, and Tom Cribb Road to the north.
- 21.4.7 All materials incoming and outgoing from the worksite will be transported by road. Lorries will enter the site from the A2016 Pettman Crescent via Tom Cribb Road and a private road network, entering via Arsenal Way and exiting via Cornwallis Road. The Arsenal Way worksite will be served by up to 18 lorries per day during the 24 week peak construction period, and by approximately seven lorries per day at other times.

Significant extant planning permissions & proposals

- 21.4.8 The Arsenal Way shaft site lies within the Royal Arsenal which benefits from outline planning permission for a large scale residential led redevelopment.

Assessment of Impacts

Historic Environment & Design

- 21.4.9 The site is located within the Royal Arsenal Conservation Area. There will be no temporary or permanent significant adverse impacts on the character and appearance of the conservation area or the setting of the Grade II listed Royal Carriage Factory and the proposals do not conflict with policies D18 (Conservation Areas) and D23 (Listed Buildings) of the saved

UDP and policies D16 (Conservation Areas) and D20 (Listed Buildings) of the emerging UDP.

21.4.10 The Arsenal Way shaft will be a small structure of high quality architectural design, located within its own landscape setting. The Crossrail ES concludes that its landscape impact will be positive. The proposals therefore do not conflict with planning policies D2, D4, D8 and D18 of the saved UDP and policies D1 and D16 of the emerging UDP.

21.4.11 The site lies within an Area of Archaeological Potential as defined by the saved and emerging UDP. The site has been subject of an archaeological evaluation and the proposals include mitigation measures to preserve any remains by record. This reduces any significant impact and the proposals therefore accord with policies D27A and D27B of the saved UDP and D29A and D29B of the emerging UDP.

21.5 Policies relevant to Plumstead Portal Worksites (Window SE6)

Significant Characteristics of Site and Surrounding Area

- 21.5.1 This works site comprises open industrial land at Plumstead Goods Yard, operational and disused railway land to the north of the North Kent Line. The site is situated approximately 250 metres east of Plumstead station.
- 21.5.2 The area to the south of the North Kent Line is primarily residential. Richard Neve House is a post-war block of flats of approximately 4-5 storeys. Reidhaven Road runs to the south and parallel to the North Kent Line.
- 21.5.3 Vehicular access to the site is provided from Nathan Way which in turn feeds into Plumstead Road. White Hart Road runs north to south linking Nathan Way to the residential areas to the south.

Overview of proposals

- 21.5.4 The proposed works in this route section comprise the construction of the twin-bore Thames tunnel, Plumstead portal, White Hart Road Bridge, track re-alignment of the existing railway and the installation of overhead line electrification.

Permanent Works

- 21.5.5 The Thames Tunnel will follow the existing alignment of the North Kent Line (NKL) from a point immediately to the west of Plumstead station to the surface just west of Church Manorway Footbridge (see Church Manor Way Bridge section). This will be located on the site of Plumstead Goods Yard, located to the east of Plumstead High Street. The tunnel eye of the Thames Tunnel will be located towards the south west corner of the goods yard. From the tunnel eye to the portal an approximate 100 m long cut and cover box with associated surface structures will be constructed. The portal will be located approximately 150 m to the west of White Hart Road. A ramp contained within an open cut will then bring Crossrail to existing track level opposite 139 Marmadon Road, to the west of Church Manorway. At the tunnel-eye, a 21 m by 30 m chamber will be constructed which will house the emergency escape and EIP facilities from the twin-bore tunnels. At surface level the facilities will be housed in an approximate 20m by 25m size surface structure. On the north side of the structure a hardstanding area will be provided for emergency assembly, emergency and maintenance vehicles on existing railway land. At the portal a secondary set of escape stairs will be provided with an associated surface structure.
- 21.5.6 A new bridge will be constructed to the north of the existing structure to carry White Hart Road over Crossrail. The NKL will continue to use the existing bridge.
- 21.5.7 To accommodate Crossrail, changes will be made to the layout of the NKL. To replace stabling sidings that will be removed to accommodate the tunnel, a new 250 m long siding will be installed on the south side of the line to the east of Plumstead High Street. The siding will also feature a 20 m long headshunt at the western end. Crossrail will occupy a position between NKL tracks so that cross platform interchanges between Crossrail and NKL trains can be provided at Abbey Wood. From a point east of White Hart Road, the northernmost NKL track will move northwards and will use a new bridge over the Crossrail tracks to reach the northern side of the railway alignment. The

realigned track will move by up to 20 m until it runs adjacent to the Crossrail tracks to the east of Church Manorway. To accommodate these works, Crossrail will acquire an approximately 15 m wide strip of land along the northern boundary of the railway between North Road and Church Manorway.

- 21.5.8 A 2 m high noise barrier will be erected from the end of the portal ramp on both sides of the railway and run eastwards to Abbey Wood station. OHLE equipment will be installed throughout the route window.

Temporary Works

- 21.5.9 The construction of the Plumstead portal including fitting out and commissioning will take approximately four years. The construction of the Thames Tunnels including fitting out and commissioning will take approximately two years and two months.
- 21.5.10 The main worksite will be situated in Plumstead Goods Yard. It is bounded by the railway line to the south, White Hart Road to the east and the embankment to the north. To be accessed by North Road off Western Way (A2016) crossing White Hart Road at the site access (rail access via Crossrail tracks once laid). The Plumstead worksite west will be situated between Nathan way and the Southern Outfall Sewer. To be accessed via Nathan Way (rail access via Crossrail tracks once laid).
- 21.5.11 Throughout the construction of the approach ramp, materials/plant and a conveyor system will be provided at the Plumstead worksite to facilitate the tunnelling west towards North Woolwich portal. The worksites will be served by up to 260 lorries per day during the 60 week peak construction period, and an average of 55 lorries accessing the worksites per day during other times.

Significant extant planning permissions & proposals

- 21.5.12 There are no significant extant planning permissions at this location.

Assessment of Impacts

Transport & Traffic Management

- 21.5.13 Plumstead worksite will be accessed from Central Way roundabout via North Road. The vast majority of lorry traffic will be generated from this site, including lorries associated with the removal of the excavated material. Excavated material will be transferred by lorry via the A2016 to a jetty at Manor Wharf for disposal by barge.
- 21.5.14 The smaller Plumstead worksite west will be accessed via Nathan Way. It is proposed that lorries will approach this worksite from the west via the Pettman Crescent gyratory but exit to the east via Nathan Way to join the A2016 at Eastern Way.
- 21.5.15 The proposals will not result in any significant impacts on road users, pedestrians or cyclists during construction or once operational. The proposals do not therefore conflict with planning policies that control the effects of traffic.
- 21.5.16 It will be necessary to close White Hart Road during construction of the new railway bridge. This is in conflict with saved plan policy M39 and emerging

policy M32 which seek to maintain high standards of pedestrian accessibility and convenience.

Amenity (eg: Noise, Vibration, Air Quality)

- 21.5.17 After the mitigation measures set out in Appendix B1 of the Crossrail ES there are no significant residual adverse construction noise impacts at these works sites.
- 21.5.18 The Crossrail ES states that no significant residual permanent noise or vibration impacts are predicted to occur.
- 21.5.19 No significant impacts on air quality are predicted to occur as a result of construction or operational activities.
- 21.5.20 There are no adverse visual amenity impacts in addition to those described in the Greenwich-wide section.

Natural Environment

- 21.5.21 There are no adverse impacts in addition to those identified which affect the route section from Plumstead portal to a point east of Abbey Wood in the London Borough of Bexley.

Land Use

- 21.5.22 The site at 4-40 Nathan Way, to the north-west of Plumstead Goods Yard is allocated for business uses (Proposal No. J55). The emerging UDP recognises that this site may be affected by Crossrail safeguarding. The site does form part of the Plumstead portal worksites.

21.6 Church Manor Way Bridge, Eynsham Drive Bridge, Borstal Manorway Bridge Worksites (Window SE7)

Significant Characteristics of Site and Surrounding Area

- 21.6.1 The existing North Kent Line runs mainly at grade and on an embankment through suburban residential areas that lie to the north and south of the track.
- 21.6.2 The North Kent Line is a busy suburban rail line linking Dartford to Woolwich and Central London.

Overview of proposals

- 21.6.3 The North Kent Line will be widened from two to four tracks in this section. These works will involve extensive bridge works.
- 21.6.4 Overhead electrification will take place in this section.

Permanent Works

- 21.6.5 The North Kent Line will be reconstructed and four tracked throughout the length of this route window. To accommodate the two Crossrail tracks in the centre, the Dartford and London bound tracks will be moved to the north and south respectively. Noise barriers of 2 m in height (from track level) will be installed between the portal and Abbey Wood station.
- 21.6.6 To accommodate four tracks and to be made fully accessible, the existing footbridge at Church Manorway will be demolished and replaced. Each side of the bridge will consist of four flights of stairs and four ramps, and will be 31 m x 9.5 m. The top of the bridge will be 8.4 m above Church Manorway whilst the structure will be 34.4 m long. The western extremity of the bridge will abut the western edge of Church Manorway.
- 21.6.7 To accommodate four tracks and to be made fully accessible, the existing footbridge at Bostall Manorway will be demolished and replaced. Each side of the bridge will consist of four flights of stairs and four ramps, and will be 43.6 m x 9.5 m. The top of the bridge will be 8.6 m above Mottisfont Road whilst the structure will be 34.4 m long.
- 21.6.8 To accommodate four tracks, the existing Eynsham Drive Bridge will be upgraded.
- 21.6.9 Overhead line electrification installation will take place in this section.

Temporary Works

- 21.6.10 The construction of the Plumstead portal and Abbey Wood station trackworks will take about three years to complete. The bridge works will take about four to five months to complete.
- 21.6.11 Worksites for each of the bridge works will be located adjacent to the bridges for road access to the sites. Rail access to the worksites will be on the existing railway tracks.
- 21.6.12 The Church Manorway worksites will be served by up to two lorries per day during the eight week peak construction period and an average of one lorry accessing the worksites per day at other times. The Bostall Manorway worksites will also be served by up to two lorries per day during the eight

week peak construction period, and an average of one lorry accessing the worksites per day at other times. The Eynsham Drive worksites will be served by up to one lorry per day during the eight week construction period, and similarly up to one lorry will access the worksite per day at other times.

Significant extant planning permissions & proposals

- 21.6.13 There are no significant extant planning permissions at this location.

Assessment of Impacts

Transport & Traffic Management

- 21.6.14 The provision of ramps at Church Manor Way Bridge, and Borstall Manor Way Bridge accords with saved plan policy M38 (Cycling), M39 (Pedestrians), M41 (Access in Public Areas) and emerging plan policies M31 (Cycling), M32 (Pedestrians) and M33 (Access to Public Areas).

Amenity (e.g.: Noise, Vibration, Air Quality)

- 21.6.15 As explained in the Greenwich-wide section above, temporary significant residual construction noise impacts are contrary to planning policy. A number of properties in the following locations will be affected by such impacts: -

- § Abbey Grove;
- § Bracondale Road;
- § Church Manor Way; and
- § Mottisfont Road.

- 21.6.16 The Crossrail ES states that no significant residual permanent noise or vibration impacts are predicted to occur.
- 21.6.17 No significant impacts on air quality are predicted to occur as a result of construction or operational activities.
- 21.6.18 There are no adverse visual amenity impacts in addition to those described in the Greenwich-wide section.

Natural Environment

- 21.6.19 There are no adverse impacts in addition to those identified which affect the route section from Plumstead portal to a point east of Abbey Wood in the London Borough of Bexley.

Open Space

- 21.6.20 The Church Manor Way Worksite North and Eynsham Drive Worksite North are both located in designated Community Open Space. This is contrary to saved policy OS10 and emerging policy O8 which seek to protect Community Open Space. Given the temporary nature of the impact this is not considered to be a significant policy conflict.

21.7 Abbey Wood Station Worksite (Window SE8)

Significant Characteristics of Site and Surrounding Area

- 21.7.1 The existing North Kent Line runs mainly at grade through suburban residential areas that lie to the north and south of the track.
- 21.7.2 The North Kent Line is a busy suburban rail line linking Dartford to Woolwich and Central London.
- 21.7.3 Abbey Wood Station is a busy commuter station. The existing ticket hall and other customer facilities are located to the south of the railway.

Description of the Proposals

- 21.7.4 The station will be rebuilt to accommodate terminating Crossrail services, and will include the partial rebuilding of Harrow Manor Way Bridge to accommodate the new platforms. The existing platforms will be extended to the east and west, and will become islands with new tracks constructed to the north and south. The existing station building will be demolished and replaced by a new station building and concourse constructed on a raft structure built above the tracks. It will be accessed at street level from Harrow Manorway Bridge, approximately 5 m above platform level. A pair of escalators, a lift and a set of stairs will link the concourse to each platform and Gayton Road to the south of the station. A lift and a set of stairs will be provided to Felixstowe Road on the north side.
- 21.7.5 The station building will be 24 m deep by 40 m wide and from street level, 8 m high to the apex of the roof. The building will include a ticket office and staff accommodation.
- 21.7.6 The North Kent Line will be reconstructed to accommodate the two new Crossrail tracks in the centre and the rebuilt station at Abbey Wood. The Dartford and London bound tracks will be moved to the north and south respectively.
- 21.7.7 West of Harrow Manorway bridge around Abbey Wood station a 2.5 m high noise barrier will be constructed and west of the station this will reduce to 2 m to join the noise barrier in Route Window SE7.
- 21.7.8 Overhead line electrification will be installed in this section.

Significant extant planning permissions & proposals

- 21.7.9 There are no significant extant planning permissions at this location.

Assessment of Impacts

Transport & Traffic Management

- 21.7.10 The Crossrail ES reports that passengers travelling to and from Abbey Wood station will experience quicker journey times to the West End and City. This accords with saved plan policy M1 and emerging plan policy M6 which seek improvements to public transport and the road network.
- 21.7.11 The proposals will result in the temporary loss of approximately 240 station car parking spaces during construction and approximately 75 spaces

permanently. Some of these spaces lie within London Borough of Greenwich. This is identified as a significant adverse temporary and permanent traffic and transport impact. Policy M35 of the saved UDP and policy M29 seek to establish adequate off-street car parking at transport interchanges and the significant loss of spaces is therefore contrary to policy.

- 21.7.12 The proposals will also result in a reduced highway capacity on Harrow Manor Way during the partial reconstruction of the Harrow Manor Way Bridge. This will result in significant adverse impacts on road users including, buses. Buses will need to be diverted at various points during the construction works which is also a significant adverse impact. The bus diversions will also have a significant impact on passengers seeking to interchange between rail and bus. The proposals are therefore in temporary conflict with policies M5 (General Traffic Control), M8 (Pedestrians and cyclists), M15 (Improvement of Bus and Rail Services), M18 (Transport interchanges), M38 (Cycling) and M39 (Pedestrians) of the saved UDP and M1 (General Principles), M7 (Bus Priority), M9 (Transport Interchanges), M31 (Cyclists) and M32 (Pedestrians) of the emerging UDP.

Amenity (e.g.: Noise, Vibration, Air Quality)

- 21.7.13 As explained in the Greenwich-wide section above, temporary significant residual construction noise impacts are contrary to planning policy. A number of properties in the following locations will be affected by such impacts: -

- § Abbey Grove;
- § Abbey Wood Road;
- § Blackmore Way;
- § St Benet's Roman Catholic Church
- § Glover Close;
- § Abbey Arms Public House;
- § Wilton Road;
- § Hermitage Close;
- § Mottisfont Road; and

- 21.7.14 The Crossrail ES states that no significant residual permanent noise or vibration impacts are predicted to occur.
- 21.7.15 No significant impacts on air quality are predicted to occur as a result of construction or operational activities.
- 21.7.16 There are no adverse visual amenity impacts in addition to those described in the Greenwich-wide section.

Natural Environment

- 21.7.17 There are no adverse impacts in addition to those identified which affect the route section from Plumstead portal to a point east of Abbey Wood in the London Borough of Bexley.

21.8 Summary of Significant Planning Policy Benefits and Conflicts within Greenwich Route Section

21.8.1 The proposals give rise to the following significant planning policy conflict during construction: -

- § **Traffic and pedestrian movement** – the proposals are potentially in significant conflict with UDP policies that seek to protect road users including buses and cyclists and pedestrians as result of the works at Abbey Wood
- § **Noise** – the proposals are in significant conflict with policies to minimise the impact of noise generation on local amenity as a result of the track widening works on the North Kent Line.
- § **Loss of Community Open Space** – the construction of the Warren Lane shaft will result in a loss of open space at Greenwich Millenium Park which is in an area of deficiency

21.8.2 The proposals give rise to the following permanent significant planning policy benefit: -

- § **Transport** – the proposals will significantly improve public transport infrastructure at Abbey Wood which is supported by planning policy
- § **Ecology** – the proposed loss of vegetation as part of the track widening works from Plumstead to Abbey Wood is a cumulative ecological impact. However these impacts will be mitigated where possible by replanting
- § **Visual Impact** – the proposals will result in a visual impact on nearby properties as a result of the works at between Plumstead Portal and Abbey Wood. However these impacts will be mitigated where possible by replanting