

15. TOWNSCAPE AND VISUAL AMENITY

15.1 Introduction

15.1.1 This chapter presents a preliminary assessment of the townscape and visual implications of the Scheme. 'Landscape' is defined in the European Landscape Convention as '...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Ref 15-1). In urban areas landscape is termed 'townscape'. Visual amenity considerations relate specifically to views of the townscape afforded to people. These separate but related issues form the basis for townscape and visual impact assessment (TVIA). Whilst cultural heritage features have a bearing on townscape, cultural heritage effects are considered separately within Chapter 7: Cultural Heritage.

15.2 Regulatory and policy framework

15.2.1 This impact assessment has been undertaken in accordance with current international and national legislation, and national, regional and local plans and policies relating to townscape and visual matters in the context of the Scheme. Legislation relating to Environmental Impact Assessment (EIA) is set out in Chapter 1: Introduction, a summary of the other relevant legislation and policies, the requirements of these policies and Scheme response has been provided in Table 15-1 below.

Table 15-1 Townscape and visual amenity regulatory and policy framework

Policy/Legislation	Summary of Requirements	Scheme Response
<p>Department for Transport (2014) National Networks: National Policy Statement (NN NPS) (Ref 15-2)</p>	<p>The NN NPS advises that where the development is subject to Environmental Impact Assessment (EIA) the applicant should undertake an assessment of any likely significant landscape and visual impacts in the environmental impact assessment and describe these in the environmental assessment. The EIA should include any noise and light pollution effects, including on local amenity, tranquillity and nature conservation. The NN NPS advises that in taking decisions, the Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation. The Secretary of State will judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development.</p>	<p>A townscape (urban landscape) and visual impact assessment has been undertaken, the findings of which are presented in this chapter. This includes consideration of the night-time visual effects of lighting, which has the potential to affect tranquillity. Other considerations which may affect tranquillity, such as noise, are considered elsewhere within this report.</p>

Policy/Legislation	Summary of Requirements	Scheme Response
<p>Department for Communities and Local Government (2012) National Planning Policy Framework (NPPF) (Ref 15-3)</p>	<p>The NPPF advises that landscapes should be taken into account in the planning process through the protection and enhancement of landscapes.</p>	<p>A townscape (urban landscape) and visual impact assessment has been undertaken, which considers the protection and enhancement of townscape, the findings of which are presented in this chapter.</p>
<p>Greater London Authority (2011, updated 2015) The London Plan (Ref 15-4)</p>	<p>The Scheme falls within Thames Policy Areas, as part of the London Blue Ribbon Network; the London Plan requires Thames-side boroughs to identify these policy areas and formulate corresponding policy that is consistent with the London Plan in relation to consideration of townscape and views. The London View Management Framework comprises supplementary planning guidance in respect of London's key views.</p>	<p>A townscape (urban landscape) and visual impact assessment has been undertaken, which considers the protection and enhancement of townscape and views, the findings of which are presented in this chapter. The Scheme would not affect the amenity offered by key views identified in the London View Management Framework guidance, the guidance is therefore not considered further.</p>
<p>Royal Borough of Greenwich Council (2014) Royal Greenwich Local Plan: Core Strategy with Detailed Policies (Ref 15-5): Policy</p>	<p>This policy advises that the Council will seek a design that respects the special character of the River Thames and considers strategic and Local Views (Policy DH(g)) within the Thames Policy Area.</p>	<p>A townscape (urban landscape) and visual impact assessment has been undertaken, which considers townscape character and Local Views (refer to Policy DH(g), below) within the Thames Policy Area, the findings of which are presented in this chapter.</p>

Policy/Legislation	Summary of Requirements	Scheme Response
DH(k) (Thames Policy Area)		
Royal Borough of Greenwich Council (2014) Royal Greenwich Local Plan (Ref 15-5): Core Strategy with Detailed Policies: Policy DH(g) (Local Views)	This policy advises that planning permission will only be given for development which would not have a materially adverse effect on the overall perspective and essential quality of the Local Views.	A Local View is situated near the Scheme at the Pilot Public House forecourt, within Metropolitan Open Land (MOL), affording a view of The O2 from the Central Park. The Scheme would not disrupt this view, as the Scheme would be obscured by intervening parkland vegetation (within the MOL) which would not be affected by the Scheme. As a result the Local View is not considered further within this assessment.
London Borough of Newham Council (2012) Newham 2027, Newham's Local Plan - The Core Strategy (Ref 15-6): Policy INF7 (Blue Ribbon Network)	This policy advises that landscape character and views will be protected and enhanced within the Blue Ribbon Network, which falls within Thames Policy Areas.	A townscape (urban landscape) and visual impact assessment has been undertaken, which considers the protection and enhancement of townscape, the findings of which are presented in this chapter.

15.3 Methodology

General approach

15.3.1 The townscape and visual impact assessment for the Scheme has been undertaken in accordance with the following best practice guidance:

- Highways Agency (2008) HA 205/08: DMRB Volume 11, Section 2, Part 5: Assessment and Management of Environmental Effects (Ref 15-7);
- Highways Agency (2010) IAN 135/10: 'Landscape and Visual Effects Assessment' (IAN 135/10 supersedes Volume 11, Section 3, Part 5 of the DMRB) Ref 15-8);
- Landscape Institute (2011) Advice Note 01/11 'Photography and Photomontage in Landscape and Visual Impact Assessment' (Ref 15-9);
- Landscape Institute and Institute of Environmental Management and Assessment (2013) 'Guidelines for Landscape and Visual Impact Assessment': Third Edition (GLVIA) (Ref 15-10); and
- Institution of Lighting Professionals (2011) Guidance Notes for the Reduction of Obtrusive Light (Ref 15-11).

Consultation

15.3.2 The EIA Scoping Report was submitted to PINS in June 2014. As identified in the EIA Scoping Opinion Report issued by the Planning Inspectorate, July 2014, the Secretary of State considers that a townscape, rather than landscape, assessment should be carried out and that the assessment should be carried out in accordance with IAN 135/10 criteria. The Secretary of State also advised that night-time lighting should be included in the assessment. These considerations have been duly included in the assessment.

15.3.3 The Secretary of State noted concerns raised by the London Borough of Tower Hamlets in respect of consultation on viewpoints to be used for the assessment. Visual receptors rather than viewpoints form the basis for visual assessment when applying IAN 135/10 guidance, however due consideration has been given to potential visual impacts within the London Borough of Tower Hamlets. Analysis indicates that the operational

Scheme would not be readily perceptible from the Borough (as indicated by Drawing 15.1 Townscape and Visual Considerations), and that temporary, construction phase visual impacts would be limited to those on the Orchard Place Industrial Estate, arising from potential use of a jetty (also within an industrial area), off Dock Road (within the London Borough of Newham).

- 15.3.4 Natural England requested, in correspondence with the Planning Inspectorate (July 2014), that Guidelines for Landscape and Visual Impact Assessment (3rd Edition) should be reflected in the assessment approach, including consideration of cumulative effects, and that National Character Areas and local character assessments should be referred to. This guidance and reference material has been duly considered in the assessment.

The study area

- 15.3.5 The Zone of Visual Influence (ZVI) or the approximate area from which the operational Scheme is anticipated to be visible, defines the Study Area for the operational visual impact assessment and is shown on Drawing 15.1 Townscape and Visual Considerations. As set out in IAN 135/10, the ZVI is not precise and is an indication only of the area within which significant visual effects may be expected to occur. As illustrated by the ZVI, visibility would be centred on the above ground infrastructure and is anticipated to be localised due to surrounding built form. Visual receptors, or those who would have a view of the Scheme, are identified in Table 15-6 with locations provided on Drawing 15.1 Townscape and Visual Considerations.
- 15.3.6 To provide context, the Study Area for the townscape assessment and overarching consideration of relevant regulatory/policy framework extends 500m from the centreline of the Scheme, which extends beyond the ZVI extents, as shown on Drawing 15.1 Townscape and Visual Considerations. Given that precise details of construction plant and working methods cannot be defined at this stage in the Scheme development, the overarching Study Area is also applied to the assessment of temporary construction phase townscape and visual effects. Beyond 500m, significant effects in respect of townscape character or views are not expected to occur due to the built/urban characteristics of the areas surrounding the Scheme.

Methodology for establishing baseline conditions

Establishing the existing baseline

- 15.3.7 Desk based studies, involving the review of Ordnance Survey (OS) mapping, aerial photography, policy documents and landscape/townscape studies relevant to the Study Area were undertaken.
- 15.3.8 The following documents were reviewed as part of the desk study, in addition to the documents identified in Table 15-1. A townscape character study is not currently available for the Royal Borough of Greenwich.
- Natural England) (2013) National Character Area Profile: 81 Greater Thames Estuary (Ref 15-12); and
 - London Borough of Newham Council (2011) Newham Character Study (Ref 15-13).
- 15.3.9 Site surveys were undertaken during summer 2013, by day, and during winter 2015, by day and at night, to establish the likely visual influence of the Scheme; identify visual receptor groups; describe the existing views experienced by receptors; and describe local townscape characteristics.
- 15.3.10 Viewpoints were selected to give an indication of the range of existing views available. Viewpoint photographs were taken in accordance with the Landscape Institute's Advice Note 01/11 using a digital single lens reflex camera, with lens selected to provide the digital equivalent of 50mm focal length for a 35mm film format. Photographs were then stitched together to generate a panorama spanning approximately 90 degrees in the direction of the Scheme (the approximate extent of view that would be experienced by the viewer at the selected viewpoint, when facing in that direction). Panoramas are shown on Drawing 15.2 Panoramic Views.
- 15.3.11 The Institution of Lighting Professionals (ILP) has produced guidelines which identify Environmental Zones that define the broad night-time characteristics of areas in terms of relative brightness or darkness (Ref 15-11). The Environmental Zone(s) which are considered to best describe the area in which Scheme lies has been identified as the broad baseline against which the Scheme can be assessed. Environmental Zones identified in the ILP guidance are as follows:
- E0: Dark landscapes such as United Nations Educational Scientific and Cultural Organisation (UNESCO) Starlight Reserves or International Dark Sky Association (IDA) Dark Sky Parks

- E1: Intrinsically dark landscapes, e.g. National Parks, Areas of Outstanding Natural Beauty;
- E2: Low district brightness areas, e.g. rural, small village or relatively dark urban locations;
- E3: Medium district brightness areas, e.g. small town centres or urban locations; and
- E4: High district brightness areas, e.g. town/city centres with high levels of night-time activity.

Forecasting the future baseline (“without scheme” scenario)

- 15.3.12 The future baseline is determined by taking into account other developments which are in the process of being implemented and have the potential to alter the existing townscape character, visual receptors and/or visual amenity described within the assessment.

Defining the importance/sensitivity of resource

- 15.3.13 The importance or sensitivity of each resource is assessed using the criteria provided in Table 15-2.

Table 15-2 Determining the importance / sensitivity of resource

Importance/ sensitivity of resource or receptor	Criteria
High	<p>Townscape: Landscapes which by nature of their character would be unable to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> a) of high quality with distinctive elements and features making a positive contribution to character and sense of place; b) likely to be designated but, the aspects which underpin such value may also be present outside designated areas, especially at the local scale; c) areas of special recognised value through use, perception or historic and cultural associations; and d) likely to contain features and elements that are rare and could not be replaced <p>Visual Amenity:</p> <ul style="list-style-type: none"> a) Residential properties. b) Users of Public Rights of Way ("PRoW") or other recreational trails (e.g. National Trails, footpaths, bridleways, etc.). c) Users of recreational facilities where the purpose of that recreation is enjoyment of the countryside (e.g. Country Parks, National Trust or other access land).

Importance/ sensitivity of resource or receptor	Criteria
Moderate	<p>Townscape: Landscapes which by nature of their character would be able to partly accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> a) comprised of commonplace elements and features creating generally unremarkable character, but with some sense of place; b) locally designated, or their value may be expressed through non-statutory local publications; c) containing some features of value through use, perception or historic and cultural associations; and d) likely to contain some features and elements that could not be replaced. <p>Visual Amenity:</p> <ul style="list-style-type: none"> a) Outdoor workers. b) Users of scenic roads, railways or waterways or users of designated tourist routes. c) Schools and other institutional buildings, and their outdoor areas.
Low	<p>Townscape: Landscapes which by nature of their character would be able to accommodate change of the type proposed. Typically these would be:</p> <ul style="list-style-type: none"> a) comprised of some features and elements that are discordant, derelict or in decline, resulting in indistinct character with little or no sense of place; b) not designated; c) containing few, if any, features of value through use, perception or historic and cultural associations; and d) likely to contain few, if any, features and elements that could not be replaced. <p>Visual Amenity:</p> <ul style="list-style-type: none"> a) Indoor workers.

Importance/ sensitivity of resource or receptor	Criteria
	b) Users of main roads (e.g. trunk roads) or passengers in public transport on main arterial routes. c) Users of recreational facilities where the purpose of that recreation is not related to the view (e.g. sports facilities).

Source: IAN 135/10 'Landscape and Visual Effects Assessment'

Methodology for assessing impacts

15.3.14 The magnitude of each impact is assessed using the criteria provided in Table 15-3.

Table 15-3 Assessing magnitude of impact

Magnitude of Impact*	Criteria
Major	Townscape: Adverse - Total loss or large scale damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic conspicuous features and elements. Beneficial - Large scale improvement of character by the restoration of features and elements, and/or the removal of uncharacteristic and conspicuous features and elements, or by the addition of new distinctive features.
	Visual Amenity: Adverse / Beneficial - The project, or a part of it, would become the dominant feature or focal point of the view.
Moderate	Townscape: Adverse - Partial loss or noticeable damage to existing character or distinctive features and elements, and/or the addition of new but uncharacteristic noticeable features and elements. Beneficial - Partial or noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic and noticeable features and elements, or by the addition of new characteristic features.

Magnitude of Impact*	Criteria
	<p>Visual: Adverse / Beneficial - The project, or a part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.</p>
Minor	<p>Townscape: Adverse - Slight loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements. Beneficial - Slight improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements.</p>
	<p>Visual Amenity: Adverse / Beneficial - The project, or a part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.</p>
Negligible	<p>Townscape: Adverse - Barely noticeable loss or damage to existing character or features and elements, and/or the addition of new but uncharacteristic features and elements. Beneficial - Barely noticeable improvement of character by the restoration of existing features and elements, and/or the removal of uncharacteristic features and elements, or by the addition of new characteristic elements</p>
	<p>Visual Amenity: Only a very small part of the project would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view.</p>
No Change	<p>Townscape: No noticeable loss, damage or alteration to character or features or elements.</p>
	<p>Visual Amenity: No part of the project, or work or activity associated with it, is discernible.</p>

Source: IAN 135/10 'Landscape and Visual Effects Assessment'

15.3.15 In accordance with IAN 135/10, significance is derived as a product of magnitude and sensitivity, as set out in Table 15-4 below:

Table 15-4 Significance of effect categories

		Magnitude of Impact				
		No Change	Negligible	Minor	Moderate	Major
Sensitivity	High	Neutral	Slight	Slight/ Moderate	Moderate/ Large	Large/ Very Large
	Moderate	Neutral	Neutral/ Slight	Slight	Moderate	Moderate / Large
	Low	Neutral	Neutral/ Slight	Neutral/ Slight	Slight	Slight/ Moderate

15.3.16 Where more than one significance outcome is possible, professional judgment is applied to determine which is most appropriate, on a case by case basis. Only Large or Very Large effects are considered likely significant effects for the purposes of the EIA Regulations. Typical descriptors of each effect category are provided in Table 15-5:

Table 15-5 Assessing significance of effect

Significance	Criteria
Very Large	Townscape: Beneficial - The project would: a) Greatly enhance the character (including quality and value) of the landscape; b) Create an iconic high quality feature and/or series of elements; and c) Enable a sense of place to be created or greatly enhanced. Adverse - The project would:

Significance	Criteria
	<p>a) Be at complete variance with the character (including quality and value) of the landscape;</p> <p>b) Cause the integrity of characteristic features and elements to be lost; and</p> <p>c) Cause a sense of place to be lost</p> <hr/> <p>Visual Amenity:</p> <p>Beneficial - The project would create an iconic new feature that would greatly enhance the view.</p> <p>Adverse - The project would cause the loss of views from a highly sensitive receptor and would constitute a dominant discordant feature in the view.</p>
Large	<p>Townscape:</p> <p>Beneficial - The project would:</p> <p>a) Enhance the character (including quality and value) of the landscape;</p> <p>b) Enable the restoration of characteristic features and elements lost as a result of changes from inappropriate management or development; and</p> <p>c) Enable a sense of place to be enhanced.</p> <p>Adverse - The project would:</p> <p>a) Be at considerable variance with the character (including quality and value) of the landscape;</p> <p>b) Degrade or diminish the integrity of a range of characteristic features and elements; and</p> <p>c) Damage a sense of place.</p> <hr/> <p>Visual Amenity:</p> <p>Beneficial - The project would lead to a major improvement in a view from a highly sensitive receptor.</p> <p>Adverse - The project would cause major deterioration to a view from a highly sensitive receptor and would constitute a major discordant element in the view.</p>
Moderate	<p>Townscape:</p> <p>Beneficial - The project would:</p>

Significance	Criteria
	<p>a) Improve the character (including quality and value) of the landscape;</p> <p>b) Enable the restoration of characteristic features and elements partially lost or diminished as a result of changes from inappropriate management or development; and</p> <p>c) Enable a sense of place to be restored.</p> <p>Adverse - The project would:</p> <p>a) Conflict with the character (including quality and value) of the landscape;</p> <p>b) Have an adverse impact on characteristic features or elements; and</p> <p>c) Diminish a sense of place.</p> <hr/> <p>Visual Amenity:</p> <p>Beneficial - The project would cause obvious improvement to a view from a moderately sensitive receptor or, perceptible improvement to a view from a more sensitive receptor.</p> <p>Adverse - The project would cause obvious deterioration to a view from a moderately sensitive receptor or, perceptible damage to a view from a more sensitive receptor.</p>
Slight	<p>Townscape:</p> <p>Beneficial - The project would:</p> <p>a) Complement the character (including quality and value) of the landscape;</p> <p>b) Maintain or enhance characteristic features and elements; and</p> <p>c) Enable some sense of place to be restored.</p> <p>Adverse - The project would:</p> <p>a) Not quite fit the character (including quality and value) of the landscape;</p> <p>b) Be at variance with characteristic features and elements; and</p> <p>c) Detract from a sense of place.</p> <hr/> <p>Visual Amenity:</p>

Significance	Criteria
	<p>Beneficial - The project would cause limited improvement to a view from a receptor of medium sensitivity or, would cause greater improvement to a view from a receptor of low sensitivity.</p> <p>Adverse - The project would cause limited deterioration to a view from a receptor of medium sensitivity or, cause greater deterioration to a view from a receptor of low sensitivity.</p>
Neutral	<p>Townscape:</p> <p>The project would:</p> <ul style="list-style-type: none"> a) Maintain the character (including quality and value) of the landscape; b) Blend in with characteristic features and elements; and c) Enable a sense of place to be retained.
	<p>Visual Amenity:</p> <p>No perceptible change in the view.</p>

Source: IAN 135/10 'Landscape and Visual Effects Assessment'

Limitations and assumptions

15.3.17 The limitations associated with defining study areas, and the parameters associated with survey and photography are set out in the Methodology Section, above. In addition, there are inherent uncertainties regarding prediction of future baseline conditions and cumulative considerations. It should be noted that at this stage the locations and dimensions of tunnel services buildings are approximate and subject to refinement. It is possible that ventilation stacks will be required at these locations. Given uncertainty regarding the need for ventilation stacks (and corresponding heights), detailed visibility modelling of the stacks has not been undertaken at this stage, rather the approximate extents of visibility within surrounding areas has been mapped as part of the ZVI for the Scheme. Should stacks be required, corresponding visibility modelling would be undertaken to support the assessment included as part of the Environmental Statement submitted with the DCO Application. Whilst survey and photography have been undertaken to provide a representative sample in respect of the existing baseline, townscape and visual conditions may vary on a day to day / night to night basis.

15.4 Description of the baseline conditions

Existing baseline

Townscape

- 15.4.1 The Scheme falls within the National Character Area 81: Greater Thames Estuary (Ref 15-12). Key characteristics of this character area, which are relevant to the urban location of the Site, are as follows:

“...Highly urbanised areas within London and on marsh edges subject to chaotic activity of various major developments including ports, waste disposal, marine dredging, housing regeneration, mineral extraction and prominent power stations plus numerous other industry-related activities...Major historical and current transport link to Inner London provided by the River Thames, with an extensive network of road and rail bridges spanning its reaches within the city...”

- 15.4.2 Newham Character Study (London Borough of Newham Council, 2011) (Ref 15-13), which was undertaken to inform Newham Core Strategy, identifies that the Scheme falls within the ‘Southern part of the borough, including the Royal Docks, (Silvertown, North Woolwich) and Beckton’, key features of which are identified as ‘the Royal Dock basins (from c.1885), airport and River Thames, industrial development around the Tate and Lyle factory and Thames Wharves and modern service industry development at Excel (hotels, exhibition centre); ex-railway lands (some incorporated as the modern road network); the Docklands Light Railway (DLR) and emerging Crossrail route.’
- 15.4.3 A character study for the Royal Borough of Greenwich has not been prepared by the Royal Borough of Greenwich Council at this stage. In the Scheme locality, townscape components include The O2, which provides a landmark and focal point; sizeable industrial areas, where the gasholder forms a prominent element; the A102 Blackwall Tunnel Approach highway corridor; and the Thames Path, which edges the River Thames and allows views over the river.
- 15.4.4 Whilst Listed Buildings (with historical/cultural associations) occur at the Royal Victoria Docks (north of the Scheme) and at the approach to Blackwall Tunnel (at the western edge of the Scheme), the local townscapes in the immediate vicinity of the proposed tunnel portals/road junction alterations are largely defined by highway corridors, industrial and

commercial areas, and derelict land, as illustrated by photographs shown on Drawing 15.2 Panoramic Views. These townscapes include a number of features and elements that are discordant, derelict or in decline, with few features of value (through use/perception) or with historic/cultural associations that could not be replaced. As a result, these townscapes are of **low** sensitivity; by the nature of their character, they would be able to accommodate change of the type proposed without undue townscape effects, with considerable scope for townscape enhancement.

Visual amenity

- 15.4.5 Visual receptors comprise low sensitivity light industrial/commercial places of work and road/railway users, moderately sensitive tourist routes (comprising National Cycle Route 13 and the Emirates Air Line (EAL)), together with the high sensitivity residential properties (at the Royal Victoria Docks) and a National Trail (Thames Path). Visual receptors and respective views to the Site are set out in Table 15-6. The existing views from these receptors are characterised by the presence of existing highway corridors together with light industrial/commercial and derelict townscape components, with considerable scope for enhancement, as illustrated by the photographs shown on Drawing 15.2 Panoramic Views (Sheets 1 to 4).
- 15.4.6 As set out in Section 15.3, above, the Institution of Lighting Engineers (ILE) (now named the Institution of Lighting Professionals (ILP)) has produced guidelines which identify Environmental Zones that define the broad night-time characteristics of areas in terms of relative brightness or darkness. The Environmental Zone which is considered to best describe the area in which the Scheme lies has been identified as E4 (high district brightness areas, e.g. town/city centres with high levels of night-time activity), which defines the broad night-time baseline against which the Scheme can be assessed. A more detailed description of baseline night-time visual characteristics is provided in Table 15-6.

Table 15-6 Visual receptor schedule

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
R1, National Cycle Route 13; Viewpoint 1; Moderate visual sensitivity.	Tourist route; Direct interface with the Scheme.	Views of the Site principally comprise those along Dock Road and A1020 Lower Lea Crossing, with immediate context formed by A1011 Silvertown Way and a grade separated road junction at the A1020 Lower Lea Crossing, elevated DLR and industrial areas, where there is limited vegetation. The EAL and The O2 sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including immediate street lighting and a backdrop with glare resulting from lighting at neighbouring industrial areas and The O2, together with building and EAL luminance within the wider cityscape.
R2, Western Beach Apartments; Viewpoint 2; High visual sensitivity.	Residential properties; 50m	These medium-rise apartments offer elevated views across the grade-separated A1011 Silvertown	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
		Way/A1020 Lower Lea Crossing junction to the industrial area within which the northern part of the Site lies. The EAL and The O2 sit within the backdrop.	
R3, Emirates Air Line; Viewpoint 2; Moderate visual sensitivity.	Commuter and tourist route; Scheme visible at approximately 50m from Air Line route.	EAL offers elevated views over the industrial areas within which the northern and southern parts of the Site lie. The O2 and tall buildings on the Isle of Dogs sit within the wider cityscape.	As above.
R4, Hanson; Viewpoint 2; Low visual sensitivity.	Place of work; Immediately adjacent.	Views of the site are principally along Dock Road, with immediate context formed by A1011 Silvertown Way and grade separated	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
		road junction at the A1020 Lower Lea Crossing, elevated DLR and industrial areas, with limited vegetation. The EAL and The O2 sit within the backdrop.	
R5, Waterfront Studios; Viewpoint 2; Low visual sensitivity.	Place of work; Immediately adjacent.	Views of the site are principally along Dock Road, with immediate context formed by A1011 Silvertown Way and grade separated road junction at the A1020 Lower Lea Crossing, DLR and industrial areas.	As above.
R6, A1020 Lower Lea Crossing; Viewpoint 1; Low visual sensitivity.	Road; Direct interface with the Scheme.	Views of the site are along A1020 Lower Lea Crossing, flanked by tree planting, with immediate context formed by	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
		grade separated road junction at A1011 Silvertown Way and industrial areas.	
R7, A1011 Silvertown Way; Viewpoint 2; Low visual sensitivity.	Road; Immediately adjacent.	Elevated views over the Site are principally defined by the industrial area within which the northern part of the Site lies. The EAL and The O2 sit within the backdrop.	As above.
R8, Tidal Basin Road; Viewpoint 1; Low visual sensitivity.	Road; Direct interface with the Scheme.	The majority of the Site is obscured by the intervening A1011 Silvertown Way grade-separated junction, with limited views to the location of proposed northern highway junction of the Scheme, which has an industrial backdrop.	As above, with views of building luminance within the wider backdrop restricted by A1011 Silvertown Way grade-separated junction.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
R9, Dock Road; Viewpoint 1; Low visual sensitivity.	Road; Direct interface with the Scheme.	Views along Dock Road, which falls within the Site; the immediate context is formed by A1011 Silvertown Way and grade separated road junction at the A1020 Lower Lea Crossing, elevated DLR and industrial areas, with limited vegetation present. The EAL, The O2 and tall buildings on the Isle of Dogs sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including immediate street lighting and a backdrop with glare resulting from lighting at neighbouring industrial areas and The O2, together with building and EAL luminance within the wider cityscape.
R10, Scarab Close; Viewpoint 1; Low visual sensitivity.	Road; Direct interface with the Scheme.	Views of the Site are predominantly defined by the grade separated road junction of A1011 Silvertown Way and the A1020 Lower Lea Crossing, and adjacent	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
		industrial areas, with limited vegetation present.	
R11, Docklands Light Railway; Viewpoint 2, Low visual sensitivity.	Railway; Immediately adjacent.	Elevated views over the Site are principally defined by the industrial area within which the northern part of the Site lies. The EAL and The O2 sit within the backdrop.	As above.
R12, Dock Road Industrial Area; Viewpoint 1; Low visual sensitivity.	Place of work; Immediately adjacent.	Views to the Site are predominantly defined by the grade separated road junction of A1011 Silvertown Way and the A1020 Lower Lea Crossing, together with adjacent industrial areas and DLR.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
R13, Orchard Place Industrial Estate; Viewpoint 1; Low visual sensitivity.	Place of work; 50m.	Beyond the immediate waterscape, in the foreground, views to the Site are defined by the industrial areas off Dock Road. High rise buildings at Royal Victoria Docks sit within the backdrop.	As above.
R14, Thames Path; Viewpoint 4; High visual sensitivity.	National Trail; 500m from likely visible Scheme components.	Beyond the immediate waterscape, in the foreground, views to the northern portal Site are defined by Thames Wharf and the industrial areas off Dock Road. High rise buildings at Royal Victoria Docks and EAL sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including glare resulting from lighting at nearby industrial areas, together with building and EAL luminance within the wider cityscape.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
R15, Brenntag UK Ltd; Viewpoint 3; Low visual sensitivity.	Place of work; Immediately adjacent.	Views of the Site principally comprise those along the A102 Blackwall Tunnel Approach, with immediate context formed by industrial areas, including gasholder; there is limited vegetation present in views. The O2 and cityscape north of the Thames sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including immediate street lighting and a backdrop with glare resulting from lighting at neighbouring industrial areas and The O2, together with buildings within the wider cityscape.
R16, Studio 338 Bar; Viewpoint 3, Low visual sensitivity.	Place of work and leisure facility; Immediately adjacent.	As above.	As above.
R17, Ranburn Ltd; Viewpoint 3, Low visual sensitivity.	Place of work; Immediately adjacent.	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
R18, O’Keefe Construction; Viewpoint 3, Low visual sensitivity.	Place of work; Immediately adjacent.	As above.	As above.
R19, A102 Blackwall Tunnel Approach (including Boord Street Footbridge); Viewpoint 3, Low visual sensitivity.	Road; Direct interface with the Scheme.	As above.	As above.
R20, Tunnel Avenue; Viewpoint 3, Low visual sensitivity.	Road; Direct interface with the Scheme.	As above.	As above.
R21, Millennium Way and adjacent car parks; Viewpoint 3, Low visual sensitivity.	Road; Direct interface with the Scheme.	Views of the Site principally comprise those along the Millennium Way, with immediate context formed by industrial areas, including gasholder. The O2 and cityscape north of the River	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
		Thames sit within the backdrop.	
R22, Boord Street/Dreadnought Street and Greenfell Street; Road; Viewpoint 3, Low visual sensitivity.	Direct interface with the Scheme.	Views of the Site principally comprise those along the A102 Blackwall Tunnel Approach, with immediate context formed by industrial areas, including gasholder; there is limited vegetation present in views. The O2 and cityscape north of the Thames sit within the backdrop.	As above.
R23, Morden Wharf Road; Viewpoint 3, Low visual sensitivity.	Road; Direct interface with the Scheme.	As above.	As above.
R24, Apartments and businesses off Western	Residential and commercial properties; 50-250m	Predominantly elevated views across the grade-separated	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
Gateway and Tidal Basin Road, Royal Victoria Docks, including Planning Application 13/01873 for residential and mixed-use development (location shown on Drawing 17.1); Viewpoint 2; High visual sensitivity.		A1011 Silvertown Way/A1020 A1020 Lower Lea Crossing junction to the industrial area within which the northern part of the Site lies. The EAL and The O2 sit within the backdrop.	
R25, Offices at Pier Walk, North Greenwich; Viewpoint 4; Low visual sensitivity.	Commercial properties; 500m from likely visible Scheme components.	Beyond the immediate waterscape, in the foreground, views to the northern portal Site are defined by Thames Wharf and the industrial areas off Dock Road. High rise buildings at Royal Victoria Docks and EAL sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including glare resulting from lighting at nearby industrial areas, together with building and EAL luminance within the wider cityscape.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Description; Approximate Distance from the Scheme	Existing View - Summer, and Winter (if different)	Existing View – Night-time
Planning Applications 13/2865/F, 10/3422 and 14/1799/F, for residential and mixed use development, North Greenwich (location shown on Drawing 17.1); Viewpoint 4; High visual sensitivity.	Residential, commercial and leisure properties; 500m from likely visible scheme components.	Beyond the immediate waterscape, in the foreground, views to the northern portal Site are defined by Thames Wharf and the industrial areas off Dock Road. High rise buildings at Royal Victoria Docks and EAL sit within the backdrop.	Light emissions from numerous sources are prevalent in views of the Site, including glare resulting from lighting at nearby industrial areas, together with building and EAL luminance within the wider cityscape.

Future baseline

- 15.4.7 The location of developments considered as part of the future baseline are shown on Drawing 17.1 Base Case Under Construction; those with the potential for townscape and visual implications are considered below.
- 15.4.8 Approval for Leamouth Peninsula North mixed use development (Planning Application PA/10/01864) was granted in 2011. Implementation of the development would fundamentally alter part of the urban environment within the wider context of the Scheme, such that this area would change from possessing industrial townscape characteristics to predominantly residential and commercial characteristics. However, such change would not occur in the immediate Scheme vicinity. This development also has the potential to introduce new visual receptors, namely residential properties. Given the distance from the Scheme, with intervening areas of infrastructure and industry remaining, it is considered that implementation of the Leamouth Peninsula North development is unlikely to cause significant additional landscape and visual effects to result from the Scheme. As a result, the development is not considered further in this assessment.
- 15.4.9 Greenwich Masterplan (approved in 2015) sets the framework for large-scale urban regeneration of the North Greenwich peninsula, including over 10,000 dwellings, offices, retail and leisure facilities. A number of masterplan components are now being implemented and have the potential for townscape and visual implications, when considered with the Scheme, as set out below.
- 15.4.10 In February 2015, approval was granted for temporary (10 years) use of Land at Peninsula Quays, off Tunnel Avenue, as a golf driving range (Planning Application 14/2161/F). Townscape characteristics of part of the area surrounding the southern tunnel portal would be altered from industrial to leisure as a result of this, however neighbouring industrial areas would remain as part of the local townscape and it is unlikely that the Scheme would be readily apparent in views from the leisure facility (where users would be focussed on their leisure activity rather than wider views). Implementation of the development is therefore unlikely to cause significant additional landscape and visual effects to result from the Scheme. As a result, the development is not considered further in this assessment.

- 15.4.11 Mixed-use and residential developments have been approved at 26 to 34 Tidal Basin Road (Planning Application 13/01873), now under construction, and several locations on the North Greenwich peninsula - comprising Land West of Coal Jetty (Planning Application 13/2865/F), Land to the South of Phoenix Avenue and to the West of Olympian Way (Planning Application 10/3422), and Land at Plot Numbers 205, 206 and 207 (14/1799/F). Townscape characteristics of the area surrounding the Scheme will alter as a result of this intensification of built development. These developments also have the potential to introduce new visual receptors, namely residential properties – refer to Table 15-6, above.

15.5 Scheme design and mitigation

Construction

- 15.5.1 Construction best practice would be employed to minimise townscape and visual disruption, for example protection of existing vegetation to be retained and targeted use of hoarding to screen construction sites, as set out in the Code of Construction Practice, a draft of which is provided in Appendix 4.A.

Operational

- 15.5.2 The Scheme is outlined in Chapter 4: Description of the Scheme and the Preliminary Design and Access Statement. The Scheme includes built form and landscape proposals that are designed to integrate the proposals with the current Scheme location and contribute positively to the future regeneration of the area. The Scheme landscape design includes a varied and visually interesting combination of trees and herbaceous plants. At the northern portal, where at-grade pedestrian and cycle links are incorporated, the design includes public realm landscape that brings together areas of hard surfacing with clusters of tree planting and understorey vegetation. At the southern portal, the Scheme includes a number of additional structures and an extended highway estate; the landscape proposals have been designed to soften this infrastructure, including clusters of trees to provide height when set against proposed structures.

15.6 Assessment of impacts

Construction impacts

Townscape

- 15.6.1 Construction activities associated with the Scheme, namely the movement of plant and vehicles, creation of compounds, and material stockpiles, would introduce temporary elements within the townscape. Such industrial characteristics would therefore temporarily increase within the local townscape, as a result of the Scheme. However, construction activities would generally only be perceived in close proximity and given the existing townscape context of the Site is partially defined by industrial activity, such as material recycling and concrete batching, there would not be significant change to townscape character. As a result, the magnitude of townscape impact is considered to be **Minor Adverse** and, taking into account low townscape sensitivity, the significance of townscape effect during construction is considered to be **Slight Adverse**.

Visual Amenity

- 15.6.2 Construction activities associated with the Scheme, namely the movement of plant and vehicles, creation of compounds, and material stockpiles, would introduce temporary elements within views. These activities would generally only be perceived in close proximity and are similar in nature to industrial activities in the Scheme locality, as a result wider visual amenity would not be notably disrupted. The effects in relation to specific visual receptors are set out in the Table 15-7: Visual Effects Schedule, below. The overall significance of visual effect during construction is considered to be **Slight Adverse**.

Operational impacts

Townscape

- 15.6.3 The local townscapes in the immediate vicinity of the proposed tunnel portals/road junction alterations are largely defined by highway corridors, industrial and commercial areas, and derelict land, with a low sensitivity. These townscapes include a number of features and elements that are discordant, derelict or in decline. Whilst the Scheme introduces new infrastructure, potentially including ventilation stacks, the proposed built form is not at odds with that already within the surrounding urban environment and will include elements that contribute positively to the

regeneration of the area. In addition, as set out in Section 15.5, above, the Scheme includes landscape proposals which would enhance the local public realm, incorporating new pedestrian areas and cycle links. As a result, the magnitude of townscape impact is considered to be **Minor Beneficial** and, taking into account low townscape sensitivity, the significance of townscape effect during operation is considered to be **Slight Beneficial**.

Visual amenity

- 15.6.4 The ZVI is shown on Drawing 15.1 Townscape and Visual Considerations. As illustrated by the ZVI, visibility would be centred on the above ground infrastructure, comprising proposed tunnel portals, tunnel services buildings (potentially including ventilation stacks), landscape proposals and highway links, and would be localised due to surrounding built form.
- 15.6.5 Notwithstanding the E4 Environmental Zone (high district brightness) characteristics of the Scheme location, significant night-time visual effects would be prevented by the use of cut-off, directional lighting to limit contribution to sky glow (the brightening of the night sky above the city) and glare (the uncomfortable brightness of a light source when viewed against a dark background). In addition, light trespass, or light spill (the spilling of light beyond the area intended to be lit) would be within the recommended limits identified within ILP guidelines (Ref 15-11), as illustrated by the indicative lighting drawings included within Appendix 15.A: Tunnel Approach Street Lighting Design Input Statement and Lighting Drawings.
- 15.6.6 The effects in relation to specific visual receptors are set out in Table 15-7: Visual Effects Schedule, below. In summary, the proposed infrastructure would sit within a context formed by existing highway structures and industrial areas such that the Scheme would not be fundamentally discordant in views across these surroundings. In addition, a number of views would be enhanced by reduced areas of derelict or industrial land and additional areas of planting. The overall significance of visual effect during operation is considered to be **Slight Beneficial**.

Table 15-7 Visual effects schedules

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
R1, National Cycle Route 13; Viewpoint 1; Moderate visual sensitivity.	Construction activities associated with the Scheme, namely the movement of plant and vehicles, creation of compounds, and material stockpiles, would introduce temporary elements within views, set within the context of existing industrial areas; Minor Adverse; Slight Adverse.	The proposed infrastructure (including ventilation stack, if required) would sit within a surrounding context formed by existing highway and railway structures, and industrial areas. Views would be enhanced by additional areas of planting; Negligible	Views would be further enhanced by maturing planting; Minor Beneficial; Slight Beneficial.	The Scheme would result in an overall increase in street lighting, however this would not fundamentally alter night-time visual conditions, which are already defined by emissions from numerous sources, including street lighting and a backdrop of glare and luminance

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		Beneficial; Slight Beneficial.		from the wider cityscape. Negligible Adverse; Neutral.
R2, Western Beach Apartments; Viewpoint 2; High visual sensitivity.	As above, but at a greater distance and separated by A1011 Silvertown Way. Negligible Adverse; Slight Adverse.	A1011 Silvertown Way would limit views to the Scheme, but with partial views of proposed infrastructure (including ventilation stack, if required) and enhancement provided by additional planting. Negligible Beneficial; Slight Beneficial.	As above.	The Scheme would result in an overall increase in street lighting, however this would be largely obscured by the intervening A1011 Silvertown Way, as set out in the paragraphs above there would not be undue light spill in respect of these

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
				apartments, and night-time visual conditions (already defined by emissions from numerous sources within the wider cityscape), would not be fundamentally altered; Negligible Adverse; Slight Adverse.
R3, Emirates Air Line; Viewpoint 2; Moderate visual sensitivity.	Construction activities associated with the Scheme, namely the movement of plant and	EAL would continue to offer elevated views of the industrial areas within which the	As above.	The Scheme would result in an overall increase in street lighting, however this

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
	vehicles, creation of compounds, use of jetty and material stockpiles, would introduce temporary elements within elevated views, set within the context of existing industrial areas; Minor Adverse; Slight Adverse.	Scheme lies. The proposed infrastructure (including ventilation stack, if required) would be seen within this context, with enhancement provided by additional planting. Negligible Beneficial; Slight Beneficial.		would not fundamentally alter night-time visual conditions, which are already defined by emissions from numerous sources, including street lighting and a backdrop of glare and luminance from the wider cityscape. Negligible Adverse; Neutral.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
R4, Hanson; Viewpoint 2; Low visual sensitivity.	Construction activities associated with the Scheme, namely the movement of plant and vehicles, creation of compounds, and material stockpiles, would introduce temporary elements within views, set within the context of existing industrial areas; Minor Adverse; Slight Adverse.	The proposed infrastructure (including ventilation stack, if required) would sit within a surrounding context formed by existing highway and railway structures, and industrial areas. Views would be enhanced by additional areas of planting; Negligible Beneficial; Slight Beneficial.	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
R5, Waterfront Studios; Viewpoint 2; Low visual sensitivity.	As above.	Existing views along Dock Road would be replaced by portal infrastructure (including ventilation stack, if required). Although views of planting would be limited, the Scheme would sit within an immediate context formed by elevated highway and railway infrastructure and views would be	As for Opening Year.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		opened up along the re-aligned Dock Road; Negligible Beneficial; Slight Beneficial.		
R6, A1020 Lower Lea Crossing; Viewpoint 1; Low visual sensitivity.	As above.	Views to the Site along the A1020 Lower Lea Crossing would continue to be flanked by tree planting, with immediate context formed by grade separated road junction at A1011 Silvertown Way and nearby industrial	Views would be further enhanced by maturing planting; Minor Beneficial; Slight Beneficial.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		areas. Proposed infrastructure (including ventilation stack, if required) would be set in this context, with views enhanced by additional areas of planting; Negligible Beneficial; Slight Beneficial.		
R7, A1011 Silvertown Way; Viewpoint 2; Low visual sensitivity.	As above.	Elevated views to the Site would continue to be largely defined by surrounding industrial	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		areas. The proposed infrastructure (including ventilation stack, if required) would be seen within this context, with enhancement provided by additional planting; Negligible Beneficial; Slight Beneficial.		
R8, Tidal Basin Road; Viewpoint 1; Low visual sensitivity.	As above.	The majority of the Scheme would be obscured by the intervening A1011 Silvertown Way grade-	Glimpsed views would be further enhanced by maturing planting; Negligible Beneficial; Slight Beneficial.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		separated junction, with limited views to the proposed infrastructure (including ventilation stack, if required) and planting proposals. Negligible Beneficial; Slight Beneficial.		
R9, Dock Road; Viewpoint 1; Low visual sensitivity.	As above.	Dock Road would be re-aligned and views would be improved by the adjacent area of new planting;	Views would be further enhanced by maturing planting; Minor Beneficial; Slight Beneficial.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		Negligible Beneficial; Slight Beneficial.		
R10, Scarab Close; Viewpoint 1; Low visual sensitivity.	As above.	Scarab Close would be re-aligned and views would be improved by the adjacent area of new planting; Negligible Beneficial; Slight Beneficial.	As above.	As above.
R11, Docklands Light Railway; Viewpoint 2, Low visual sensitivity.	As above.	Elevated views to the Site would continue to be largely defined by surrounding industrial areas. The proposed	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		infrastructure (including ventilation stack, if required) would be seen within this context, with enhancement provided by additional planting; Negligible Beneficial; Slight Beneficial.		
R12, Dock Road Industrial Area; Viewpoint 1; Low visual sensitivity.	As above.	Views to the Site would continue to be largely defined by the grade separated road junction of A1011 Silvertown Way and	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		the A1020 Lower Lea Crossing. Views would be improved by the adjacent area of new planting; Negligible Beneficial; Slight Beneficial.		
R13, Orchard Place Industrial Estate; Viewpoint 1; Low visual sensitivity.	Use of the jetty for material transportation would be seen within the context of existing industrial areas, which would obscure other construction works;	With the possible exception of the ventilation stack (if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where	With the possible exception of the ventilation stack (if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where	The Scheme would not fundamentally alter night-time visual conditions, which are already defined by emissions from numerous sources, including street lighting

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
	Negligible Adverse; Slight Adverse.	visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Neutral.	visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Neutral.	and a backdrop of glare and luminance from the wider cityscape. Negligible Adverse; Neutral.
R14, Thames Path; Viewpoint 4; High visual sensitivity.	As above.	With the possible exception of the stack (if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant	With the possible exception of the stack (if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant	The Scheme would not fundamentally alter night-time visual conditions, which are already defined by emissions from numerous sources, including street lighting and a backdrop of

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		element within an industrial context. Negligible Adverse; Slight Adverse.	element within an industrial context. Negligible Adverse; Slight Adverse.	glare and luminance from the wider cityscape. Negligible Adverse; Slight Adverse.
R15, Brenntag UK Ltd; Viewpoint 3; Low visual sensitivity.	Construction activities associated with the Scheme, namely the movement of plant and vehicles, creation of compounds, and material stockpiles, would introduce temporary elements within views, set within	The proposed infrastructure (including ventilation stack, if required) would sit within a surrounding context formed by existing highway infrastructure and industrial areas. Views would be	Views would be further enhanced by maturing planting; Minor Beneficial; Slight Beneficial.	The Scheme would result in an overall increase in street lighting, however this would not fundamentally alter night-time visual conditions, which are already defined by emissions from

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
	the context of existing industrial areas; Minor Adverse; Slight Adverse.	enhanced by additional areas of planting within the highway estate; Negligible Beneficial; Slight Beneficial.		numerous sources, including street lighting and a backdrop of glare and luminance from the wider cityscape. Negligible Adverse; Neutral.
R16, Studio 338 Bar; Viewpoint 3, Low visual sensitivity.	As above.	The proposed infrastructure (including ventilation stack, if required) would sit within a surrounding context formed by existing highway infrastructure	As for Opening Year.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		and industrial areas. Views would be enhanced by renewal of the highway estate, including replacement Boord Street footbridge and new areas of amenity grass seeding; Negligible Beneficial; Slight Beneficial.		
R17, Ranburn Ltd; Viewpoint 3, Low visual sensitivity.	As above.	As above.	As above.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
R18, O’Keefe Construction; Viewpoint 3, Low visual sensitivity.	As above.	As above.	As above.	As above.
R19, A102 Blackwall Tunnel Approach (including Boord Street Footbridge); Viewpoint 3, Low visual sensitivity.	As above.	The proposed infrastructure (including ventilation stack, if required) would sit within a surrounding context formed by existing highway infrastructure and industrial areas. Views would be enhanced by	Views would be further enhanced by maturing planting; Minor Beneficial; Slight Beneficial.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		additional areas of planting within the highway estate; Negligible Beneficial; Slight Beneficial.		
R20, Tunnel Avenue; Viewpoint 3, Low visual sensitivity.	As above.	As above.	As above.	As above.
R21, Millennium Way and adjacent car parks; Viewpoint 3, Low visual sensitivity.	As above.	As above.	As above.	As above.
R22, Boord Street/Dreadnought	As above.	The proposed infrastructure	As for Opening Year.	As above.

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
Street and Greenfell Street; Road; Viewpoint 3, Low visual sensitivity.		(including ventilation stack, if required) would sit within a surrounding context formed by existing highway infrastructure and industrial areas. Views would be enhanced by renewal of the highway estate, including replacement Boord Street footbridge and new areas of amenity grass seeding; Negligible		

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
		Beneficial; Slight Beneficial.		
R23, Morden Wharf Road; Viewpoint 3, Low visual sensitivity.	As above.	As above.	As above.	As above.
R24, Apartments and businesses off Western Gateway and Tidal Basin Road, Royal Victoria Docks, including Planning Application 13/01873 for residential and mixed-use development (location	Construction activities associated with the Scheme would be generally obscured by intervening A1011 Silvertown Way. Tall plant (such as cranes) and construction of the larger structures, in particular, would	A1011 Silvertown Way would limit views to the Scheme, but with partial views of proposed infrastructure (namely taller structures, such as the ventilation stack, if required,) and enhancement provided	Views of the Scheme would continue to be limited. Negligible Beneficial; Slight Beneficial.	The Scheme would result in an overall increase in street lighting, however this would be largely obscured by the intervening A1011 Silvertown Way, as set out in the paragraphs above there would not

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
shown on Drawing 17.1); Viewpoint 2; High visual sensitivity.	introduce temporary elements within views, set within the context of existing industrial areas; Minor Adverse; Slight Adverse.	by additional planting. Negligible Beneficial; Slight Beneficial.		be undue light spill in respect of these apartments, and night-time visual conditions (already defined by emissions from numerous sources within the wider cityscape), would not be fundamentally altered; Negligible Adverse; Slight Adverse.
R25, Offices at Pier Walk, North	Use of the jetty for material transportation	With the possible exception of the stack	With the possible exception of the stack	The Scheme would not fundamentally alter

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
Greenwich; Viewpoint 4; Low visual sensitivity.	would be seen within the context of existing industrial areas, which would obscure other construction works; Negligible Adverse; Slight Adverse.	(if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Neutral.	(if required), the Scheme is anticipated to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Neutral.	night-time visual conditions, which are already defined by emissions from numerous sources, including street lighting and a backdrop of glare and luminance from the wider cityscape. Negligible Adverse; Neutral.
Planning Applications 13/2865/F, 10/3422 and 14/1799/F, for residential and mixed	Use of the jetty for material transportation would be seen within the context of existing	With the possible exception of the stack (if required), the Scheme is anticipated	With the possible exception of the stack (if required), the Scheme is anticipated	The Scheme would not fundamentally alter night-time visual conditions, which are

Receptor Reference, Name, Nearest Viewpoint (refer to Drawing 15.1 Townscape and Visual Considerations for location); Visual Sensitivity.	Construction Period - Description of View; Magnitude of Visual Impact; Significance of Effect	Opening Year (Winter) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year (Summer, 15 Years after Opening) - Description of View; Magnitude of Visual Impact; Significance of Effect	Design Year Night-time – Description of View; Magnitude of Visual Impact; Significance of Effect
use development, North Greenwich (location shown on Drawing 17.1); Viewpoint 4; High visual sensitivity.	industrial areas, which would obscure other construction works; Negligible Adverse; Slight Adverse.	to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Slight Adverse.	to be obscured by the intervening industrial areas and where visible the stack would be seen as a distant element within an industrial context. Negligible Adverse; Slight Adverse.	already defined by emissions from numerous sources, including street lighting and a backdrop of glare and luminance from the wider cityscape. Negligible Adverse; Slight Adverse.

15.7 Cumulative impacts

- 15.7.1 The location of developments considered as part of the cumulative assessment are shown on Drawing 17.2 Cumulative Developments; those with the potential for townscape and visual implications are considered below:
- 15.7.2 The northern part of the Scheme (north of the River Thames) falls within a strategic development site, identified by the London Borough of Newham Council, where the Council intend to plan for mixed-use development as well as infrastructure such as the Silvertown Tunnel. However proposals have not yet been developed and therefore cannot be assessed at this stage. In addition, a number of planning applications for high-rise residential and mixed use development have been approved in the London Borough of Newham and within the scheme locality, comprising the Former Goswell Bakeries and Vacant Warehouses Site (Planning Application 13/01461/FUL), north-west of the Royal Victoria Docks; and Site We8 at Tidal Basin Road (Planning Application 10/00369/FUL). In addition, planning approval is pending with regard to the redevelopment of Hercules Wharf, Castle Wharf and Union Wharf, Orchard Place, London Borough of Tower Hamlets, for high-rise, mixed use development. These developments would introduce successive phases of construction work, and further large-scale built form on completion, all occurring within the Scheme locality, and ultimately increasing the density of the urban area. Additional visual receptors, principally residential properties, would also be introduced. The construction and operation of the Scheme would be perceived in the context of a developing urban area, with increasing density, and would not be at odds with the characteristics of this townscape. As a result there are not anticipated to be significant cumulative townscape and visual effects.
- 15.7.3 Greenwich Masterplan (Planning Application 02/2903/O, approved in 2004) sets the framework for large-scale urban regeneration of the Greenwich Peninsula, including over 10,000 dwellings, offices, retail and leisure facilities. Consented developments that form part of the updated 2015 masterplan proposals include retail/commercial, film studio, parking, and transport interchange proposals, near the southern tunnel portal. The construction and operation of the Scheme would not be at odds with this developing townscape context, as a result there are not anticipated to be significant cumulative townscape and visual effects.

15.8 Further work to be done

- 15.8.1 The assessment will continue to be reviewed against further consultation outcomes and any changes to the Scheme, legislation/policy, the baseline, future baseline and cumulative considerations.

15.9 NN NPS compliance

- 15.9.1 Section 5 of the NN NPS advises that:

“...Where the development is subject to EIA the applicant should undertake an assessment of any likely significant landscape and visual impacts in the environmental impact assessment and describe these in the environmental assessment...In taking decisions, the Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to avoid adverse effects on landscape or to minimise harm to the landscape, including by reasonable mitigation...The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the development...”

- 15.9.2 The Scheme has been carefully designed in response to its townscape and visual context, as outlined in the Preliminary Design and Access Statement. This chapter describes the townscape (urban landscape) and visual effects of the Scheme, in line with the NN NPS; these effects, which are considered to be **Slight Beneficial** overall, as summarised below, will need to be duly considered by the Secretary of State.

15.10 Summary

- 15.10.1 The townscape and visual assessment for the Scheme has been undertaken principally in accordance with Highways Agency (2010) IAN 135/10: ‘Landscape and Visual Effects Assessment’.
- 15.10.2 The local townscapes in the immediate vicinity of the proposed tunnel portals/road junction alterations are largely defined by highway corridors, industrial and commercial areas, and derelict land. These townscapes include a number of features and elements that are discordant, derelict or in decline, with few features of value that could not be replaced. Visual receptors comprise low sensitivity light industrial/commercial places of

work and road/railway users, moderately sensitive tourist routes (comprising National Cycle Route 13 and the EAL), together with the high sensitivity residential properties (apartments at Royal Victoria Docks) and National Trail (Thames Path). Existing views from these receptors are characterised by the presence of existing highway corridors together with light industrial/commercial and derelict townscape components, with considerable scope for enhancement. In terms of night time characteristics, the Scheme falls within a high district brightness area where there are high levels of night-time activity.

- 15.10.3 Whilst the Scheme introduces new infrastructure, the proposed built form is not at odds with that already present within the local townscape and views. The Scheme includes landscape proposals which would improve the public realm, integrate the proposals with the current Scheme location and enhance the local townscape and views. Notwithstanding the high district brightness characteristics of the Scheme location, significant night-time visual effects would be prevented by the use of cut-off, directional lighting to limit contribution to the brightening of the night sky above the city, the uncomfortable brightness of lighting when viewed against a dark background, and the spilling of light beyond the area intended to be lit. A summary of the significance of overall impacts is provided in Table 15-8 below:

Table 15-8 Townscape and visual impact summary table

Impact description	Temporary/Permanent	Residual Impact Significance rating
The Scheme introduces new infrastructure that is not at odds with the local townscape and includes landscape proposals which serve to enhance the local townscape and views.	Townscape: Permanent Visual: Permanent	Townscape: Slight Beneficial, Not Significant. Visual: Slight Beneficial, Not Significant.

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