M3 Junction 9 Improvement

Scheme Number: TR010055

6.1 Environmental Statement Chapter 2 The Scheme and its Surroundings

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6.1 ENVIRONMENTAL STATEMENT - CHAPTER 2: THE SCHEME AND ITS SURROUNDINGS

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2 The Scheme and its Surroundings

2.1 Introduction

2.1.1 This chapter of the Environmental Statement (ES) provides an overview of the Scheme including its location, the need for the Scheme, Scheme objectives and context together with a description of the Scheme. It also outlines details of the construction, operation and long-term management of the Scheme. The Scheme is illustrated in the **General Arrangement Plans** (**Document Reference 2.5**) and **Engineering Plans and Sections** (**Document Reference 2.6**) respectively, as well as the **Preliminary Construction Plan (Figure 2.1** of the **ES (Document Reference 6.2))** and the **Environmental Masterplan Figure 2.3** of the **ES (Document Reference 6.2)).**

2.2 Need for the Scheme

2.2.1 Hampshire County Council identified in 2013 that infrastructure improvements were necessary to reduce congestion levels and assist with the strategic movement of traffic at Junction 9 of the M3, a key arterial intersection with the A34, to make sure that traffic congestion and increased journey times do not compromise the scale of potential future economic growth in the sub-region (Hampshire County Council, 2013).

2.2.2 Significant volumes of traffic use the grade separated, partially signalised gyratory (approximately 6,000 vehicles per hour during the peak periods) which acts as a bottleneck on the local highway network and causes significant delays throughout the day. Northbound and southbound movements between the M3 and the A34 are particularly intensive, with downstream queues on the northbound off slip of the M3 often resulting in safety concerns during peak periods.

2.2.3 The transport modelling undertaken for the Scheme (see the **Combined Modelling and Appraisal Report** (**Document Reference 7.10**) for further information) indicates that traffic across the modelled network is anticipated to grow by approximately 10% until the Scheme opening year of 2027. Should the Scheme not be granted development consent and the existing Junction 9 design be retained, current conditions would be exacerbated due to this predicted future traffic growth.

2.2.4 The improvement to M3 Junction 9 was included in the Department for Transport's Road Investment Strategy (RIS). The RIS sets out the list of schemes that were to be delivered by National Highways over the period covered by the RIS (2015 to 2020). The RIS identified improvements to M3 J9 Winnall Interchange as one of the key investments in the Strategic Road Network for the London and South East region.

2.2.5 The improvement contributes to national transport objectives by:

- Providing additional capacity (via dedicated new free flow links on the A34 – M3 southbound and M3 northbound to A34, reducing the need for traffic to interact with the gyratory roundabout at Junction 9)

- Enhancing journey time reliability (through reducing congestion at Junction 9)

- Supporting the development of housing and the creation of jobs, as set out in the existing and emerging Local Plans (through the potential to accelerate local development sites by improving marketability and mitigation potential capacity constraints, increasing adjacent commercial and industrial land value and the potential to accelerate ongoing trends towards densification and new development in Winnall)

2.2.6 The Scheme is included in the Solent to Midlands Route Strategy (Highways England, 2017), which identifies the M3 Junction 9 improvement as a major improvement project as part of this route upgrade. Within this, Junction 9 of the M3 is specifically highlighted as being a location where there is a substantial barrier to connectivity in relation to the South Downs National Park and walking, cycling and horse-riding.

2.2.7 The latest available collision data has been combined with collision data outlined in the Project Control Framework (PCF) Stage 2 Scheme Assessment Report (Highways England, 2018), and identified that between 2011 and 2016 a total of 82 accidents occurred, with approximately 50% on or on the approach to the junction roundabout. The remaining 50% occur on the M3 slip roads or on the main line of the M3 and the A34.

2.2.8 Upgrading Junction 9 of the M3 would help improve safety, improve the capacity of the road network in this location by reducing delays and congestion which in turn would improve journey time reliability. Combined, these elements would support local growth in the area as established through requirements of local policy. This would bring significant benefits for road users, local communities and local businesses.

2.3 Scheme objectives

2.3.1 The Scheme has five strategic objectives, supported by the National Highways Delivery Plan 2015-2020 (Highways England, 2015):

- To reduce delays at M3 Junction 9 on all links M3, A33 and A34

- Smooth the flow of traffic by improving journey time reliability and reducing delays (time lost per vehicle per mile) at M3 Junction 9 and the exit and entry roads for the A33 and A34

- Improve the safety for all road users and reduce the annual collision frequency and severity ratio on the M3 Junction 9

- Support economic growth and ensure the junction can accommodate additional traffic

- Improvements for walkers and cyclists, including connecting the National Cycle Network Route 23 which is severed by the current junction layout

2.3.2 The South Downs National Park is a sensitive landscape receptor within which the Scheme is partially located. In view of its special landscape character, there is a clear need to balance the economic, social and safety benefits of an improved junction against the potential environmental impacts of delivering such a significant new physical infrastructure in a sensitive environment.

2.3.3 By providing an unconstrained link on the A34 – M3 southbound and M3 northbound to A34, vehicles would not be required to manoeuvre through a priority or signal-controlled junction. This seeks to reduce congestion and improve journey time reliability on the M3, A34 and local road network.

2.3.4 The design of the Scheme takes into account National Highways 10 principles of good design, published in 'The Road to Good Design' (Highways England, 2018), to support its aspirations for a network that responds better to both people and places through improved design processes. These promote environmentally sustainable design that fits in context, whilst making roads safe, useful, and understandable.

2.3.5 The development of the Scheme has considered the feedback received during both the 2019 and 2021 statutory consultation exercises and targeted consultation in 2021, as well as ongoing assessment work to produce a design which has been used as the basis of the application for development consent. The Scheme design and the assessment of its likely significant environmental effects are presented in this ES.

2.4 Scheme location

Surrounding area

2.4.1 The Scheme is located within the planning authority boundaries of Winchester City Council and Hampshire County Council. It also lies partially within the jurisdiction of the South Downs National Park Authority. The application site and surrounding area are shown in **Figure 1.1** (**Location Plan)** of the **ES** (**Document Reference 6.2**).

2.4.2 The existing M3 Junction 9 is a grade separated, partially signalised gyratory roundabout connecting multiple nationally and locally significant routes. The M3 is joined with the A34 towards Newbury, A272 towards Petersfield and southern Hampshire, and Easton Lane towards Winnall and northern Winchester. Approximately 1 kilometre (km) north of the roundabout, the A33 from Basingstoke connects with the A34, and approximately 1km south of the roundabout the A31 from Alton connects to the A272.

2.4.3 The surrounding area is primarily urban to the west of the M3 and primarily rural to the east (see **Figure 2.1**). There are large concentrations of residential dwellings close to the A34 to the north of the Application Boundary (in Headbourne Worthy, Kings Worthy and Abbots Worthy) and close to the M3 to the south of the Application Boundary (on the eastern fringe of Winchester). A small number of isolated farm holdings or rural dwellings lie to the east and south east of the Application Boundary. There are a small number of schools and education facilities, including St Swithun's School north of the B3404 and east of the M3, Winnall primary school and Stepping Stones pre-school to the south west of the junction.

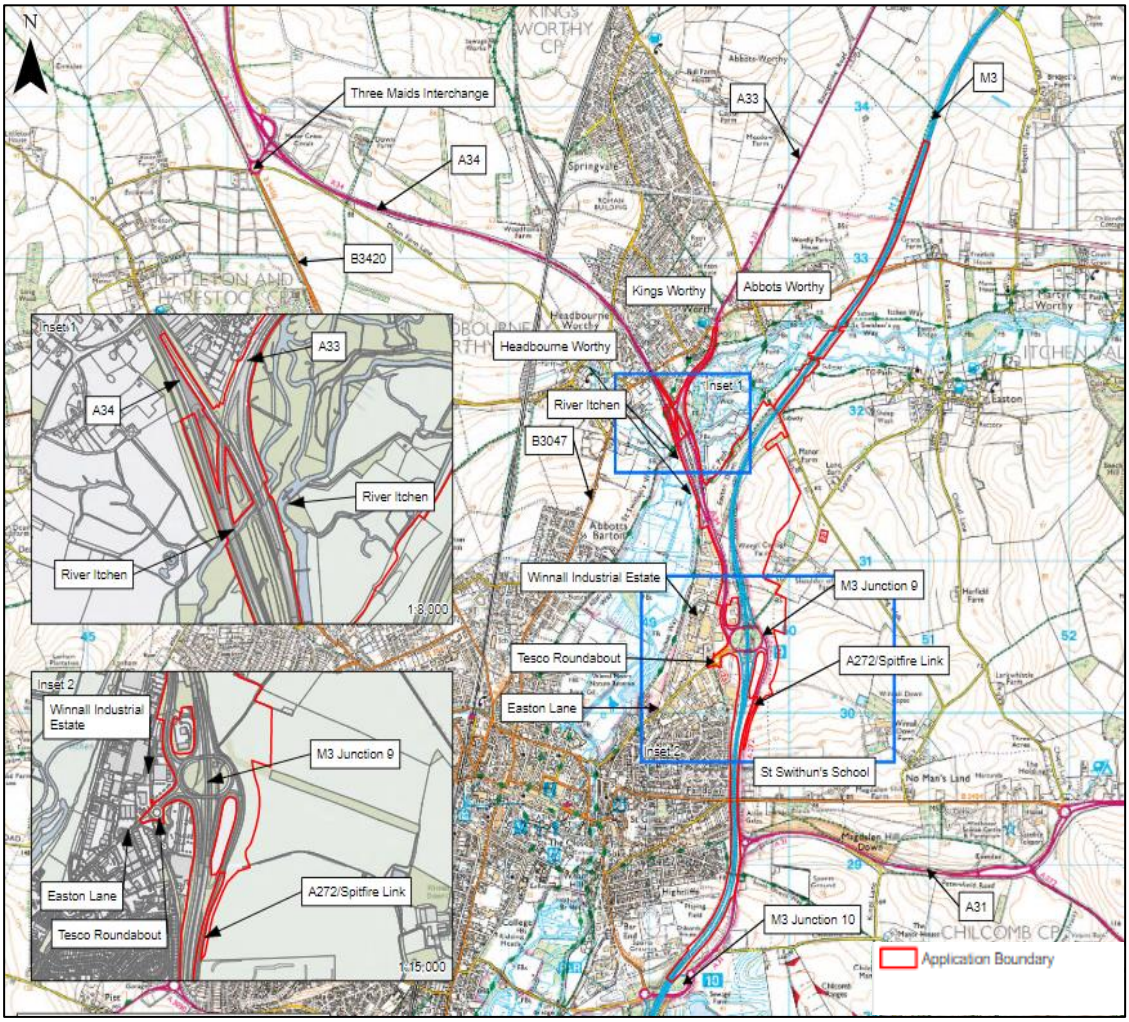

Figure 2.1: The Scheme and Surrounding Area (not to scale)

2.4.4 Immediately west of the Application Boundary, there is an area of commercial development. This includes Sun Valley Business Park, Tesco, Winnall Industrial Estate and Scylla Industrial Estate. Wykeham Trade Park and National Highways maintenance depot located to the north-west of the junction.

Designated sites

2.4.5 The South Downs National Park is an important designated area within and adjacent to the Application Boundary to the north, east, south and in some areas, the west. The special qualities of the South Downs National Park include diverse, inspirational and breath-taking views; a rich variety of wildlife and habitats including rare and internationally important species; tranquil and unspoilt places; and environment shaped by centuries of farming and embracing new enterprise; great opportunities for recreational activities and learning experiences; well-conserved historical features and a rich cultural heritage; and distinctive towns and villages, and communities with real pride in their area. The Scheme constitutes 'Major Development' within the National Park. The western extent of the wider South Downs National Park boundary is shown on **Figure 1.3** (**Environmental Constraints Plan)** of the **ES** (**Document Reference 6.2**).

2.4.6 The River Itchen Special Area of Conservation (SAC) (a European designated site) is located (in part) beneath the existing alignment of the existing A34, the A33 and the M3. The River Itchen SAC is designated for its riverine habitats and species which it supports including southern damselfly (*Coenagrion mercurial)*, bullhead (*Cottus gobio)*, white-clawed crayfish (*Austropotamobius pallipes)*, brook lamprey (*Lampetra planeri)*, Atlantic salmon (*Salmo salar)*, pond water-crowfoot (*Ranunculus peltatus*), stream water-crowfoot (*R. penicillatus ssp. Pseudofluitans*), river water-crowfoot (*R. fluitans*) and otter (*Lutra lutra)*.

2.4.7 The River Itchen is also a Site of Special Scientific Interest (SSSI) (a nationally designated site), primarily due to the complex mosaic of habitats found within the riparian zone including the chalk stream and associated fen meadow, flood pasture and swamp habitats which support species such as otter, water vole *Arvicola amphibius*, and white-clawed crayfish. Unlike the SAC, the SSSI designation also includes some of the habitats adjacent to the river channel.

2.4.8 St Catherine's Hill SSSI is located approximately 500m south of the Application Boundary. This SSSI is designated for chalk grassland and associated habitats. Cheesefoot Head SSSI is located approximately 2km east of the Application Boundary. This SSSI is designated for chalk grassland and a colony of the Duke of Burgundy *Hamearis lucina* butterfly. The statutory designated sites are shown on **Figure 1.3 (Environmental Constraints Plan)** of the **ES** (**Document Reference 6.2**).

2.4.9 The Winnall Moors Nature Reserve is located to the west of the Scheme, and west of the Winnall Industrial Estate. At its northern extent, the reserve boundary lies parallel to the Application Boundary along the existing alignment of the A34, however the Nature Reserve boundary does not interact with the Application Boundary.

2.4.10 Two Groundwater Source Protection Zones (SPZ) lie within the northern extent of land within the Application Boundary. They are classified as Groundwater Source Protection Zone (SPZ) 1 (inner zone) and SPZ 2 (outer zone).

2.4.11 There are a number of scheduled monuments and listed buildings adjacent to the Application Boundary. Designated cultural heritage assets are shown on **Figure 1.3** (**Environmental Constraints Plan)** of the **ES** (**Document Reference 6.2**).

2.4.12 Further designations such as Noise Important Areas (NIA) and Air Quality Management Areas (AQMA) are shown on **Figure 1.3** (**Environmental Constraints Plan)** of the **ES** (**Document Reference 6.2**).

2.4.13 The Environment Agency Flood Map for Planning indicates that the northern and western parts of land within the Application Boundary, particularly at the A34 Winchester Bypass and M3 north of Long Walk, extend into an area designated as Flood Zone 3: area with a 1% (1 in 100) Annual Exceedance Probability (AEP) risk or greater of fluvial flooding. The designated Flood Zone 3 area is associated with the River Itchen and its tributaries.

2.4.14 The sensitivity of the Scheme's location and associated environmental receptors / features, is noted and the potential significant effects, including impact interactions and cumulative effects, is reported in this ES.

2.5 Baseline and future baseline scenario

2.5.1 This section provides a description of the baseline scenario and the future baseline scenario.

2.5.2 The detailed description of the baseline and future baseline are outlined in specific environmental topic chapter (**Chapters 5 – 14** of the **ES** (**Document Reference 6.1**)). A high-level summary of the conditions under each scenario is provided below.

Baseline scenario

2.5.3 The baseline scenario is the current state of the environment without implementation / construction of the Scheme. The detailed baseline conditions are set out within **Chapters 5 – 14** of the **ES (Document Reference 6.1).**

2.5.4 Land falling within the Application Boundary that is not part of the existing road network largely comprises agricultural land (arable) includes the following designations:

- The South Downs National Park
- The River Itchen SAC
- The River Itchen SSSI

Public Rights of Way

2.5.5 Public Rights of Way (PRoW) that are located within and in proximity to the Application Boundary are as follows, see **Figure 2.4** (**Existing and New Walking, Cycling and Horse-riding Routes**) of the **ES** (**Document Reference 6.2):**

- South Downs Way
- National Cycle Network 23
- Itchen Way
- St Swithun's Way
- Other local PRoWs (Winchester Bridleway 502; Winchester Bridleway 520; Footpath 9; Itchen Valley Restricted Byway; Footpath 20; Footpath 21; Footpath 22; Footpath 27; Headbourne Worthy Footpath 6; Footpath 749; and Kings Worthy Footpath 8)

2.5.6 The assessment of impacts to PRoWs is identified in **Chapter 12 (Population and Human Health)** of the **ES** (**Document Reference 6.1**), and the commitment to appropriate management and diversion of PRoWs can be found in the **first iteration Environmental Management Plan (fiEMP)** (**Document Reference 7.3**).

Future baseline scenario

2.5.7 The future baseline is the likely evolution of the current state of the environmental baseline without implementation of the Scheme, taking account of natural changes and readily available information such as proposed development projects as well as climate change scenario data. There are two future baseline years considered within the ES:

- Opening year – when the Scheme is operational, i.e. open to traffic in 2027
- Design year – a future year scenario 15 years after the opening year when mitigation measures are likely to have achieved their desired outcome. For the Scheme, this is 2042

2.5.8 As identified in **Section 2.2**, the transport modelling undertaken for the Scheme identifies a predicted increase in traffic growth of approximately 10% across the modelled network until the Scheme opening year of 2027. Accordingly, without the Scheme the existing bottlenecks at Junction 9 would be exacerbated.

2.5.9 The M3 Junction 9 to Junction 14 all lane running (ALR) Scheme is formally paused following the ministerial statement on 12 January 2022. However, National Highways is planning to upgrade the existing central reservation barrier to

concrete, to deliver safety benefits. This scheme is known as the M3 Junction 9 to 14 Safety Barrier Improvement Scheme.

2.5.10 Given the central reservation work from the M3 Junction 9 to 14 Safety Barrier Improvement Scheme is due to take place prior to the construction of the Scheme, it has been considered as part of the future baseline. This, and other developments which would be operable prior to the commencement of the Scheme's construction, are also considered as part of the future baseline within **Chapters 5 – 14** of the **ES** (**Document Reference 6.1**). **Appendix 15.1 (Cumulative Effects Long List of Developments)** of the **ES** (**Document Reference 6.3**) identifies a comprehensive list of 'other development' some of which are due to be in operation prior to the construction of the Scheme and which would fall within future baseline considerations.

2.5.11 Outside of the above changes, it is considered that changes to the wider landscape in the future would not be noticeable i.e. tree growth and vegetation growth would not be extensive with the exception of isolated pockets of noticeable growth (for example the maturation of more recent tree planting in proximity to the Spitfire Link, east of the gyratory roundabout, see **Figure 1.1** (**Location Plan)** of the **ES** (**Document Reference 6.2**). Landscape pattern or topography is unlikely to change.

2.5.12 Given the relatively short period of time between the baseline scenario and 2027 (opening year), and 2042 (15 years after opening), and that as the landscape to the east falls within the South Downs National Park with no known changes or land allocated for development, the features and characteristics of the landscape are likely to remain the same. There would likely be no perceived changes to the landform, land cover, field patterns and vegetation presence during this time. Hence the future baseline for ecological and heritage assets which contribute to the character of the landscape would remain the same as set out in the existing baseline.

2.5.13 With regard to climate change, based on projections produced by the Met Office (UKCP18) for the area around the Application Boundary (see **Chapter 14 (Climate)** of the **ES** (**Document Reference 6.1**) for further information), it is anticipated that summers would become warmer and drier, with an expected increase in maximum summer temperatures and overall decline in summer precipitation. Natural variations may mean that some cooler and/or wetter summers would occur. Winters may become milder and wetter, with an overall increase in both minimum winter temperature and winter precipitation. Natural variations may mean that some cold and/or dry winters may still occur.

2.6 Scheme description

2.6.1 The improvements proposed as part of the Scheme both maintain existing connectivity on the road network, whilst providing enhanced capacity, simplified routing and improved facilities for walking, cycling and horse-riding routes and

landscaping enhancements. The Scheme would provide new free flow links between the M3 and A34, as well as a dedicated new A33 alignment. The Scheme elements are described below and shown on **Figure 2.2 (General Arrangement)** of the **ES** (**Document Reference 6.2**):

- Widening of the M3 from a dual two-lane motorway (two-lane motorway with hard shoulders) to a four-lane motorway (with hard shoulders) between the proposed M3 Junction 9 gyratory north and south slip roads.
- A new smaller grade separated gyratory roundabout arrangement within the footprint of the existing roundabout, incorporating new connections over the M3 with improved walking, cycling and horse-riding routes.
- Connector roads from and to the new gyratory roundabout.
- Improved slip roads to/from the M3.
- New structures (in the form of gyratory bridges, underpasses, retaining walls, subway and a new cycle and footbridge over the River Itchen).
- A new surface water runoff system with associated drainage and infiltration features.
- New signage and gantries.
- Utility diversions.
- New lighting (subways, underpasses and gantries).
- Modifications to topography through cuttings and false cuttings as well as re-profiling of existing landform.
- New walking, cycling and horse-riding provision.

2.6.2 Environmental design features include the following:

- Incorporating sensitive landscape planting and new habitats such as the creation of new areas of chalk grassland, woodland, scrub planting and species rich grassland
- A sensitively designed new path for walkers, cyclists and horse-riders on the edge of the South Downs National Park
- Material generated from site excavation works will be reused in the Scheme where possible

- The design of the new bridge over the River Itchen will be a clear span structure with abutments set back from the river channel, with no works required within the river channel
- Low noise road surfacing would be used where new road surfaces are needed
- Provision of drainage ponds and treatment of operational highway runoff. The drainage design also prevents pollution of watercourses by intercepting and treating the road drainage discharges
- Using non-intrusive temporary construction measures within the River Itchen to clean an existing headwall, and install two new headwalls to serve the operational drainage strategy
- Retention of existing pavements where possible
- Use of warm rolled asphalt for installation of road surfacing, not hot rolled asphalt (resulting in reduced carbon emissions and energy requirements)

2.6.3 The Application Boundary is approximately 109 hectares (ha). This includes the proposed land required for gantries, signage, temporary construction compound areas, areas for environmental mitigation (including landscaping), areas for drainage requirements (some of which would be temporary) and traffic management.

2.6.4 All distances, directions, areas and lengths referred to in the following description are approximate.

2.6.5 The term 'chainage' (Ch) is used to refer to the distance measures in metres along the centre line of the Scheme. The chainages referred to in this text are indicated on **Figure 2.10 (Chainage)** of the **ES (Document Reference 6.2)** and **Section Plans** (**Document Reference 2.5**).

2.6.6 **Figure 2.9** (**Finished Level Variance from Existing Levels)** of the **ES (Document Reference 6.2**) demonstrates how the proposed finish levels of the Scheme vary against existing ground levels within the Application Boundary.

M3 to A34 northbound

2.6.7 In the northbound direction, the existing M3 carriageway on the approach to Junction 9 would be extended from three lanes into four lanes. Revisions to the existing signage on the northbound approach to Junction 9 are proposed. Access to Junction 9 would be provided via a reconstructed northbound off-slip (slip road leaving the M3) **(M3NB Ch 323**). An additional two lanes would be constructed north of **M3NB Ch 323** to create four running lanes. The two nearside (western) lanes would be signed and line marked for the A34 northbound and the two offside

(eastern) lanes for the M3. North of the north bound off-slip, a hard shoulder would be provided.

2.6.8 Two proposed northbound A34 lanes would pass under Junction 9 alongside the two M3 lanes, after which they would diverge (split apart) **(M3NB Ch 1002**) from the M3 alignment to form the new A34 northbound link with the remaining two offside lanes continuing north as the M3.

2.6.9 After the split, the A34 would continue north, passing over the proposed realigned A33 **(A34N Ch 1272 to 1334)** with M3 northbound on-slip and then descending to tie into the existing A34 northbound carriageway (with a speed limit of 50 mph) **(A34N Ch 1755)** before it crosses the River Itchen.

2.6.10 The existing northbound A34 diverge link towards the A33 would be abandoned (it is proposed to utilise part of the abandoned carriageway for a new walking and cycling route and drainage storage areas, see paragraphs that follow), separating the existing linkage between the two A-roads.

2.6.11 North of the existing River Itchen crossing **(A34N Ch 2103)**, the A33 diverge would be removed to leave the two lanes of the A34 to run continuously.

A34 southbound to M3

2.6.12 The A34 southbound link (with a speed limit of 50 mph) would leave the existing A34 alignment after it crosses the River Itchen (**A34S Ch 153**), moving to the east where it would then pass under the M3 and proposed A33 alignment in an underpass with cuttings.

2.6.13 Beyond the proposed M3 and A33 underpass, an off-slip would be provided (off the A34 southbound link road) (**A34S Ch 811**) connecting to the revised Junction 9 gyratory roundabout. The A34 southbound link road would continue to join the M3 mainline southbound carriageway (with a speed limit of 70 mph) and pass under the revised Junction 9 gyratory roundabout layout.

M3 Junction 9 roundabout

2.6.14 The Junction 9 circulatory roundabout would be replaced with a smaller (in terms of footprint) unsignalised gyratory roundabout (with a speed limit of 40 mph). All link roads that access the roundabout would need to be realigned to this new layout. A segregated left turn lane is to be provided from Easton Lane to the A33 northbound to improve junction capacity. Two new longer span gyratory bridges would replace the existing bridges to provide the road corridor width required for the new configuration. See below for a description of the bridge structures.

Slip roads

2.6.15 The existing M3 northbound on-slip (leaving the gyratory to access the motorway) would be realigned to become the A34 northbound on-slip, merging downstream

with two A34 northbound lanes that diverge from the M3 (**A34N Ch 1151**). The existing A34 link connecting to the existing roundabout would be converted to a two-way road connecting to the A33, linking the reconfigured gyratory roundabout to a new roundabout providing access to the Traffic Officer Service and National Highways maintenance depot. Beyond the depot roundabout, the carriageway would continue with a dedicated M3 northbound on-slip road accessed off a new roundabout **(A33 (section 1) Ch 1371)** (north of the A34 underpass approach) and with a continuation of the A33 leading northbound towards Basingstoke.

2.6.16 The existing M3 southbound off-slip would be removed and replaced with a new off-slip (located approximately 600 metres to the north of the existing). The new southbound M3 off-slip would then merge with the new A34 southbound diverge connector road **(A34 SB DIV Ch 311)**, which then proceeds along a new link to the gyratory roundabout to maintain local access.

2.6.17 The two south-facing slip roads would be realigned to connect the new roundabout. Both would merge (southbound) and diverge (northbound) directly to the existing M3.

Mobility

2.6.18 The Scheme has been designed to allow all gradients on the walking, cycling and horse-riding alignments to be no more than 1:20 to comply with paragraph 3.2 of the Department for Transport's Inclusive mobility guidance (DfT, 2005). The range of opportunities and barriers to all forms of movements have been given due consideration in the design of the Scheme.

Structures

2.6.19 The existing gyratory bridge structures would be demolished, and new structures constructed to facilitate the Scheme. The below identifies those structures and work required to each, see **Figure 2.2 (General Arrangement)** of the **ES** (**Document Reference 6.2**) for their locations and **Table 2.1** for their dimensions. The depth of piled foundations required for structures would be determined during the detailed design stage. The maximum depth of pile foundations is assumed to be 20m, however in reality this depth is anticipated to be far shallower.

Gyratory bridges

2.6.20 The existing gyratory roundabout consists of two bridge structures, known as Easton IC North (Structure No. 9/M3/102.50) and Easton IC South (Structure No. 9/M3/102.60). Each comprises a 3-span continuous in-situ reinforced concrete voided deck supported on reinforced concrete piers founded on spread footings. The existing bridges would be demolished and replaced by the two new bridge structures carrying the new gyratory – M3 Junction 9 Gyratory North Bridge **(M3N Ch 772 to 781)** and M3 Junction 9 Gyratory South Bridge **(M3N Ch 663 to 677)**.

2.6.21 The new bridge structures would each comprise a single span weathering steel-concrete composite deck supported on reinforced concrete integral abutments founded on pile foundations. Separate reinforced concrete wing walls perpendicular to the abutments are proposed on all four corners.

M3 underpass

2.6.22 A new underpass is proposed to carry the A34 southbound under the new A33 link road and the existing M3 **(A34S Ch 611 to 722)**. The proposed structure would comprise a reinforced concrete buried box. Reinforced concrete wing walls would be provided on all four corners of the structure. Consideration has been given to the visual appearance of the walls by providing vegetated slopes down from A33 link/M3 verge level to the top of the walls and up from the A34 southbound verge level to face of wall.

A34 northbound underpass

2.6.23 The A34 northbound Underpass would carry the new A34 northbound over the new A33 link and M3 northbound on-slip road at an angle of approximately 18 degrees **(A33 (Section 2) Ch 216 to 279).** The proposed structure would comprise a reinforced concrete box structure. The underpass would tie-in to the A33 link retaining walls at the north-east and south-east of the structure. Reinforced concrete wing walls would be provided at the north-west and south-west of the structure.

A33 retaining walls

2.6.24 Retaining walls **(A33 (Section 2) Ch 80 to 385)** are required to allow the A33 link to be routed parallel to the M3 northbound. Consideration has been given to the visual appearance of the retaining walls by providing where possible, vegetated slopes down from the A34 northbound/M3 verge level to the top of the walls and up from the A33 link verge level to face of wall.

Subways

2.6.25 The existing subways [Winnall subway east (Structure No. 8446) and Winnall subway west (Structure No. 8447)] (RNBT01 **Ch 509**) and (**Ch 215**) located under the existing gyratory are proposed to be demolished to facilitate the construction of the reconfigured roundabout. The existing each comprise a 3.0m wide by 2.3m high (clear dimensions) in-situ reinforced concrete box structure.

2.6.26 Four new subways are required along the proposed WCH route (A33 / B3047 junction to Winnall to the west of the M3), A34 northbound subway (**A34N Ch1418**), gyratory subway (north-west) (**RNBT01 Ch 360**), gyratory subway (south-west) (**RNBT01 Ch 205**), gyratory subway (east) **(RNBT01 Ch 537**). The new subways would comprise in-situ or precast reinforced concrete box structure. In-situ or precast reinforced concrete splayed wing walls are proposed on corners of the new subways. Subway dimensions are identified in **Table 2.1**.

Consideration has been given to the visual appearance of the wing walls by placing them at a nominal 45 degree angle to the entrance of the subway and providing vegetated slopes down from verge level to the top of the walls and up from verge level to the face of wall.

Other retaining walls

2.6.27 Eight additional retaining walls are required to construct the Scheme, at A272 Northbound (**A272NB Ch 32 - 125**), M3 Southbound J9 on-slip (**M3S Ch 4261 - 4413**), A34 Northbound J9 Diverge (**M3N Ch 805 - 1027**), M3 Northbound J9 off-slip (**M3N Ch 470 - 650**), A34 Southbound **(A34S Ch 734 - 789)**, WCH (**A34S Ch 370 - 480**), A272 Southbound (**A272SB Ch 766 - 944**) and M3 Southbound Auxiliary Lane Merge **(M3S Ch 4650 - 4915).** The new retaining walls would comprise steel sheet pile retaining walls with a steel capping plate.

River Itchen bridge

2.6.28 A new cycle and footbridge over the River Itchen would be located between the existing Itchen Bridge, (which carries the A34 Northbound carriageway), and the existing Kingsworthy Bridge (which upon completion of strengthening works, would carry the A33 north and southbound carriageways and the A34 southbound carriageway, respectively) (**A34N Ch 1757 - 1795**).

2.6.29 The proposed cycle/footbridge would comprise a single-span (clear span) through truss supported on reinforced concrete abutments founded on piled foundations without the need for direct or intrusive works within the River Itchen. It is envisaged that piled foundations would be pre-cast or cased in-situ to seek to avoid the use of wet concrete reaching the river system through ground fissures. Timber and steel are being considered for the proposed structure, which would be lifted into place as a pre-constructed item with the crane situated on the adjacent highway. Separate reinforced concrete wing walls perpendicular to the abutments would likely be required on all four corners. The abutments, which are envisaged to be precast units to seek to avoid the use of wet concrete, would be set back from the riverbank and outside the SAC and SSSI to reduce environmental impact and to allow preventative measures should wet concrete be required. The design would allow passage of wildlife, in particular otter, to be maintained along the riverbank. Where possible, the final design would be sympathetic to the surrounding's vegetation.

2.6.30 Depending on the bridge deck installation detail, access may be required to potential bolt connections. If this is necessary, pontoons could be used to support an access system to the bridge. It is anticipated that this pontoon would only be in place for a few days and would be across the river width. The design of any pontoon configuration would be undertaken in consultation with an ecologist.

Table 2.1: Summary of Proposed Structures

Structure name	Chainage	Cross section	Length
M3 J9 North Gyratory Bridge	Start Chainage: 413 End Chainage: 458	9.5m (w) x 1.75m (h)	45m clear span (excluding wing walls)
M3 J9 South Gyratory Bridge	Start Chainage: 112 End Chainage: 157	13.8m (w) x 1.75m (h)	45m clear span (excluding wing walls)
M3 Underpass	Start Chainage: 611 End Chainage: 733	10.95m (w) x 6.2m (h) – clear width and height	119m (measured along centreline)
A34 Northbound Underpass	Start Chainage: 201 End Chainage: 300	9.7m (w) x 5.8m (h) – clear width and height	100m (measured along centreline)
A33 Link Retaining Wall North	Start Chainage: 80 End Chainage: 201	North: varies 0.45m - 6.62m (max) retained height	North: 121m
A33 Link Retaining Wall South	Start Chainage: 300 End Chainage: 385	South: varies 0.3m – 11.5m (max) retained height	South: 86.8m
River Itchen Cycle/footbridge	Start Chainage: 1333 End Chainage: 1365	3.5m (w)	35m span

Structure name	Chainage	Cross section	Length
A34 Northbound Subway	Start Chainage: 1706 End Chainage: 1730	4m (w) x 2.7m (h) – clear width and height	24.2m (excluding wing walls)
Gyratory Subway (south-west)	Start Chainage: 715 End Chainage: 743	4m (w) x 2.7m (h) – clear width and height	28.2m (excluding wing walls)
Gyratory Subway (East)	Start Chainage: 268 End Chainage: 290	4m (w) x 2.7m (h) – clear width and height	22.2m (excluding wing walls)
Gyratory Subway (north-west)	Start Chainage: 218 End Chainage: 240	4m (w) x 2.7m (h) – clear width and height	24m (excluding wing walls)
A272 Retaining Wall	Start Chainage: 32 End Chainage: 125	Varies 0.5m - 1.7m (max) retained height	89.6m
M3 Southbound J9 On Slip Retaining Wall	Start Chainage: 137 End Chainage: 292	Varies 0.5m - 1.5m (max) retained height	146.3m
M3 Southbound Auxiliary Lane Merge	Start Chainage: 4650 End Chainage 4915	Varies 0.5m – 1.2m (max) retained height	265m
A34 Northbound J9 Diverge Retaining Wall	Start Chainage: 805	Varies 0.5m - 2.7m (max)	186.2m

Structure name	Chainage	Cross section	Length
	End Chainage: 1027	retained height	
M3 Northbound J9 Off-slip Retaining Wall	Start Chainage: 470 End Chainage: 649	Varies 0.5m – 3.1m (max) retained height	157.6m
A272 Southbound Wall	Start Chainage: 767 End Chainage: 944	Varies 0.5m - 1.0m (max) retained height	184m
WCH Retaining Wall	Start Chainage: 1208 End Chainage: 1287	Varies 0.5m – 2.0m (max) retained height	82m
A34 Southbound Retaining Wall	Start Chainage: 369 End Chainage: 480	Varies 0.5m – 2.5m (max) retained height	115m

Kingsworthy Bridge strengthening

2.6.31 The Kingsworthy Bridge (A34/0.40/1) **(A34S Ch 254 - 284**) carries the existing A34 southbound traffic and the merging A33 southbound traffic over the River Itchen. The structure was commissioned in 1938 and comprises two reinforced concrete beam and slab deck spans skewed at an angle of 47 degrees. Each span has an approximate skew length of 13.7m and contains 8 main beams beneath the carriageway and 2 smaller parapet support beams on the edge of the structure. The superstructure is supported on reinforced concrete abutments and integral pier.

2.6.32 Modifications in terms of strengthening works are proposed to the existing structure to carry the bi-directional A33 traffic and the A34 southbound traffic, in the form of attaching carbon fibre plates to the underside of the edge beams. These plates are lightweight and are both carried and fixed into position by hand. In order to prepare the concrete structure to accept the adhesive, those sections would require to be ground back by a few millimetres to prepare a clean surface,

which would be undertake in conjunction with a vacuum designed to collect approximately 90% of the dust generated.

2.6.33 The bridge surfacing would be planed down and the top of the existing deck exposed. Due to the age of the water proofing system, it is envisaged that the whole deck would be re-waterproofed.

2.6.34 A new central reserve with safety barrier is proposed to be installed on a new plinth to segregate the A34 southbound from the bi-directional A33. New safety barriers are proposed to be installed on both sides of the bridge. These would be set back from the new kerb lines and installed on new plinths to provide errant vehicle restraint instead of the brick parapets.

Road surfacing

2.6.35 The majority of the existing carriageway within the Application Boundary consists of a low noise road surfacing. Where carriageway within the Application Boundary is not affected it is intended that the existing road finish would be retained. Where carriageway is to be affected and a new road finish implemented, it would consist of a low noise finish. Where new road surfacing is laid it would utilise warm rolled asphalt, which is less energy intensive than hot rolled asphalt (see **Chapter 14 (Climate)** of the **ES** (**Document Reference 6.1**)) for further information.

Closed-circuit television (CCTV) masts

2.6.36 New CCTV and radar masts would be required at heights of 15m and 8m respectively. **Figure 2.2 (General Arrangement)** of the **ES (Document Reference 6.2**) presents their locations.

Walking, cycling and horse-riding facilities

2.6.37 The walking, cycling and horse-riding facilities around and within the Scheme are to be upgraded and would retain the provision of National Cycle Network Route 23. On both sides of the gyratory (east and west), the existing walking and cycling route which links both parts of Easton Lane, would descend to a subway route provided beneath the gyratory roundabout. The existing provision for horse-riders is being retained, and as part of the Scheme would be improved with a widened 3m route (with 4m wide underpasses), which includes mounting blocks provided either side of the eastern subway to enable rider dismounting for leading horses through to continue the route to the existing bridleway extent (which currently ceases within the existing roundabout). Should a future and separate proposal come forward to lengthen the bridleway provision across the M3, the Scheme facilitates this by including a wider bridge over the M3 for a 3m width route, and space for future mounting block provision either side of the western subway so that horse-riders could dismount after leading horses through the subway. It should be noted that any future provision for horse-riders would also require the bridge parapet height to be raised.

2.6.38 A new 3m wide combined footway, footpath and cycle track for the western side of the Scheme is proposed to link the A33 / B3047 Junction to Tesco's situated on Easton Lane. The route runs parallel to the west of the A33 with the route to be constructed within the existing verge. A signalised (unlit) Toucan crossing is proposed adjacent to the proposed National Highways depot roundabout, to provide a link to this route through the north-western side of the gyratory roundabout. The route then transitions to utilise the existing A34 northbound and A33 carriageways which are to be abandoned as part of the Scheme. The existing informal link to the existing PRoW would also be upgraded from its connection to the A33. For the first River Itchen crossing (i.e. most northern), the route follows the existing A33 and is accommodated on the existing bridge deck abandoned carriageway.

2.6.39 For the second river crossing (i.e. most southern), the Scheme includes a new cycle/footbridge to be constructed across the River Itchen, with the route extending south along the east of the new A34 alignment, crossing under the A34 in a new 4m wide subway which would then traverse around new attenuation basins, then progressing to the existing depot junction and towards NCN 23 via a new subway under the northern arm of the gyratory roundabout. The new cycle/footbridge would be approximately 3.5m wide.

2.6.40 Four proposed subways would be required to accommodate existing and improved provision of routes in the area. The two new subways at the gyratory roundabout would cater for existing users of NCN Route 23, one additional subway would link with the western walking and cycling route, while a subway under the A34 northbound catering for the pedestrian/cyclist users of the new route.

2.6.41 An additional 3m wide bridleway (with unbound surfacing) is proposed on the eastern side of the Scheme to link Easton Lane with Long Walk for walkers, cyclists and horse-riders. Such a route would provide a circular leisure path for those using the South Downs National Park with a link to the other paths around Long Walk with their links to local villages. The bridleway has been designed to a gradient of no more than 1:20.

2.6.42 **Figure 2.4 (Existing and New Walking, Cycling and Horse-Riding Routes)** of the **ES** (**Document Reference 6.2**). provides an overview of the existing and new walking, cycling and horse-riding routes.

Land reprofiling

2.6.43 It is anticipated that approximately 384,800m^3 of excavated material would be required to be excavated during the construction phase, the majority which is anticipated to be re-used within the Application Boundary to facilitate the construction of the development itself or through land reprofiling.

2.6.44 The surface levels of land within the Application Boundary are proposed to vary from existing levels as identified in **Figure 2.9** (**Finished Level Variance from Existing Levels)** of the **ES** (**Document Reference 6.2**).

2.6.45 In response to comments received during the statutory consultation process in 2021 (see the **Consultation Report** (**Document Reference 5.1**) for further details), land within the Application Boundary to the east of the M3 alignment between Long Walk and Easton Lane is proposed to be reprofiled to form a sympathetically designed earthwork which reinforces existing land characteristics whilst balancing visual screening requirements as shown in **Figure 2.3 (Environmental Masterplan)** of the **ES** (**Document Reference 6.2**). This design results in the opportunity to utilise site gained chalk material as the basis for new creation of chalk grassland, to plant scrub/woodland on the slopes of the proposed earthworks, to promote large open skies and distant panoramic views, to promote good access opportunities to areas of created chalk downland and to maintain open rolling chalk downland landscape with woodland on steep slopes.

Signage/gantries

2.6.46 The proposed locations of gantries are shown on **Figure 2.2 (General Arrangement)** of the **ES** (**Document Reference 6.2**) at locations as per current guidance and design standards. It is proposed that these would be portal gantries.

2.6.47 All gantry mounted Variable Message Signage (VMS) and signals would be standard types commonly used across the National Highways network. These are MS4s (Message Sign Mark 4) and Advanced Matrix Indicators (AMI).

2.6.48 Infrastructure to support the VMS and signals would also be provided. This would include masts for CCTV cameras, Radar Motorway Incident Detection and Automatic Signalling (MIDAS) detectors, cabinets, chambers and a ducted network installed in a trench in the verge.

2.6.49 A range of signs and gantries would be required for safe operation of the Scheme, as located on **Figure 2.2 (General Arrangement)** of the **ES** (**Document Reference 6.2**). The largest dimensions of traffic signage are considered to be approximately 7.11m in height, above a 1.5m mounting height, and designed to standards (DMRB CD146 – Positioning of Signalling and Advanced Direction Signs), as well as relevant chapters of the Traffic Signs Manual and Traffic Signs, Regulations and General Directions 2016.

2.6.50 Gantries would be installed for the safe operation of the Scheme, as located on **Figure 2.2 (General Arrangement)** of the **ES** (**Document Reference 6.2).** The largest gantry dimensions are considered to be approximately 4.58m plus new construction headroom of up to 5.78m relative to location level.

2.6.51 Piled foundations are anticipated to be required for the portal gantries, dimensions for which would be a 6m by 1.25m footprint using a 2 pile formation to a maximum

depth of 20m. However, the actual depth of piles is anticipated to be shallower, subject to detailed design work.

Off-slip utility diversions

2.6.52 Construction of the Scheme would require the diversion, relocation or protection of several utility assets. The required diversions would be planned in detail by the contractor (hereafter referred to as the Principal Contractor) as part of the construction works. **Figure 2.7 (Proposed Utility Diversions)** of the **ES (Document Reference 6.2)** identifies the location of works required to facilitate diversions**.**

Drainage

2.6.53 Drainage measures are required to be incorporated into the Scheme design to reduce opportunity for pollutants to interact with sensitive environmental receptors (such as the River Itchen), during both construction and operational phases. Such measures have been taken into account in assessment work as reported in this ES (see **Chapter 13 (Road Drainage and the Water Environment)** of the **ES (Document Reference 6.1)** and within **Chapter 8 (Biodiversity)** of the **ES (Document Reference 6.1)**) together with the **fiEMP (Document Reference 7.3)** for further information).

Construction

2.6.54 Works to facilitate construction of the Scheme would be appropriately phased to include suitable surface water drainage measures (to be implemented prior to construction works commencing), to intercept potential contaminates which may arise. Such measures are secured through the **fiEMP (Document Reference 7.3**).

2.6.55 In total, six new detention basins and two soakaways would be required to be constructed, with one geocellular attention structure serving the A33/A34 highway close to the River Itchen, see **Appendix 13.1 (Drainage Strategy Report)** of the **ES (Document Reference 6.3)** for further details**.**

2.6.56 Furthermore, the construction of the drainage strategy would involve temporary work (non-intrusive) within the River Itchen to isolate and dewater an area around one existing outfall location (to clean and re-use this outfall) as well as at the of two new permanent outfalls which are to be constructed. These would consist of the installation of a pre-cast concrete headwall such that the toe of the headwall does not protrude into the River Itchen; thus would sit in the river bank. Associated works would include pipe connection, backfilling and reinstatement of topsoil. Owing to the PRoW located along the riverbank, a balustrade would be installed over the headwall for reasons of safety.

2.6.57 A drainage outfall methodology optioneering report is included in **Appendix 2.1 (Drainage Outfall Methodology Optioneering Report)** of the **ES** (**Document**

Reference 6.3), summarising the methods for installation to determine the most environmentally sensitive approach for working within the River Itchen.

Operation

2.6.58 The proposed physical structures required (as set out in the operational drainage strategy) includes installation of new gravity drainage for all new carriageway, other than where existing carriageway is being overlaid only in which case the existing drainage is retained. The proposed discharge runoff is being undertaken in accordance with the following principles:

- All highway runoff that is conveyed to two new outfalls to the River Itchen, is to be treated as long-term storage and attenuated to a flow of 2 litres per second per hectare (l/s/ha), which is equivalent to the 100-year greenfield runoff rate for the M3J9 catchment
- Existing carriageway which is retained and overlaid is to be discharged at existing runoff rates through existing highway drainage infrastructure
- New carriageway-widening areas, which are adjacent to, and draining to new existing carriageway surface shall drain via the existing carriageway drainage infrastructure. The existing drainage infrastructure would be checked for no-carriageway flooding in the 5-year return period in accordance with DMRB standards

2.6.59 The proposed drainage solution for new carriageway (including the M3) replaces the existing process with a combination of either discharge to groundwater or discharge to the River Itchen, both following treatment, attenuation and detention. The categories of pollution considered and addressed within the proposed drainage solution include microplastics, Heavy Goods Vehicle (HGV) spillage, total suspended solids and further metals and contaminates. Mitigation features include Sustainable Drainage Systems (SuDS), settlement and filtration.

2.6.60 The proposed drainage for the new carriageways comprise:

- Over-the-edge drainage of run off from carriageways on embankments to filter strips and infiltration ditches
- Collection of run-off at carriageway edge in linear drains, gullies or filter drains, which is piped to the following:
- Attenuation and primary settlement treatment in filtration forebays and unplanted, lined detention basins
- Attenuation, secondary settlement and filtration treatment in vegetation extended detention basins, containing both wet and dry habitats
- Tertiary treatment in a grassed swale prior to discharge to the River Itchen

- In areas where existing carriageway is being overlaid and existing highway drainage is being retained, run-off is either discharged over-the-edge to filter strips or infiltration ditches, or is captured in road gullies and channels, and conveyed to infiltration features such as existing soakaways or trenches

2.6.61 The drainage design includes an allowance for the effects of climate change. Attenuation has been provided for up to and including 100 years plus 40% climate change allowance, through sustainable drainage systems (SuDs) features.

2.6.62 The location of drainage basins is illustrated on **Figure 2.3 (Environmental Masterplan)** of the **ES** (**Document Reference 6.2).** Further information on the operational drainage strategy and operational pollution prevention methods is available within **Appendix 13.1 (Drainage Strategy Report)** of the **ES** (**Document Reference 6.3).**

Lighting

2.6.63 Given the context of the Scheme's location with the South Downs National Park which is sensitive to new lighting arrangements, avoiding and minimising light pollution is a key consideration for the Scheme.

2.6.64 The carriageways, junction and the slip roads would not be lit. The two new gantries which are to be provided south of the gyratory are required to be illuminated. In addition, lighting would be required within the underpasses and subways due to the length of these facilities, which would be designed in accordance with the South Downs National Park *Dark Skies Technical Advice Note*. The approaches and exits to underpasses would not be lit.

2.6.65 The new walking, cycling and horse-riding routes identified within **Figure 2.4** (**Existing and New Walking, Cycling and Horse-Riding Routes)** of the **ES** (**Document Reference 6.2**) would not be lit (other than subways).

2.6.66 The need for temporary construction lighting would be limited. Works would largely be undertaken during daylight hours. Where operations are needed to be undertaken overnight, such as resurfacing works and traffic management switches, temporary lighting would be needed for safety reasons and would be directional to minimise light spill. Temporary lighting would also be needed at the site compound again for safety reasons in mornings and evenings, this would also be directional and minimise light spill.

Fencing and boundary treatments

2.6.67 The boundary treatment would likely comprise of timber post and wire fence at a height of up to 1.35m, a post and four rail fence at a height of up to 1.3m or where necessary, a post and rail fence would be provided with the attachment of a wire mesh for the purpose of animal management.

2.6.68 Further definition for the boundary treatment would be determined at detailed design unless otherwise specified. Details can be found on **Figure 2.3** (**Environmental Masterplan)** of the **ES** (**Document Reference 6.2**).

2.6.69 Where a timber post and four rail fence demarcates the highways ownership boundary, the adjacent landowner would maintain the fence. Where a mammal fence demarcates a boundary, a maintenance strip would be acquired for the highway authority to maintain from the landowner side.

Offsite works

2.6.70 There are no offsite works identified.

Limits of deviation

2.6.71 The assessments included within this ES are based on the design of the Scheme described within this chapter, the **General Arrangement Plans (Document Reference 2.5)**, the **Engineering Plans and Sections (Document Reference 2.6)**, the works described in Schedule 1 of the **draft Development Consent Order (DCO)** (**Document Reference 3.1**) indicated principally on the **Works Plans** (**Document Reference 2.3**) and the maximum area of land anticipated as likely to be required, taking into account the proposed Limits of Deviation (LoD) for the Scheme.

2.6.72 LoD have been incorporated within the Application Boundary to allow minor modifications to be made to the Scheme during the detailed design and construction stages. Such flexibility is required, for example, to enable the Principal Contractor to alter their working procedures or make minor adjustments to the position of certain infrastructure in response (for example) to unforeseen ground conditions.

2.6.73 The lateral and vertical LoD set out in the **draft DCO** (**Document Reference 3.1**) and described in **Table 2.2** and **Table 2.3** within this chapter, have been determined based on the design, construction and buildability factors associated with the Scheme, and have been taken into consideration as part of the Environmental Impact Assessment (EIA) process and reported in this ES.

Table 2.2: Lateral Deviation

Works No (Refer to Works Plans (TR010055/APP/2.3)	Description	Lateral LoD
1i, 1l, 1k, 3b, 8, 9c, 9d, 11, 30, 33, 42, between points A to B, C to D, G to H and I to L	Drainage and attenuation basins, maintenance tracks, M3 northbound on-slip, M3 southbound off-slip, realignment of walking, cycling and horse-riding route and subway	2.0 metres, except work area 1j and 1m where they may deviate a maximum of 5.0 metres, and between points E to F where they do not deviate

Table 2.3: Vertical Deviation

Works No (Refer to Works Plans (TR010055/APP/2.3)	Description	Lateral LoD
27, 28, 13, 14, 36, 9	Gyratory northern overbridge, gyratory southern overbridge, A34 southbound underpass, A33 underpass, attenuation basin, M3 southern bridge portal gantry, Southdown's bridleway	1.0m upwards or downwards
2d, 12a, 12c, 31a, 32c, 32d, 2e, 24a, 24d, 33a, 4, 29	Retaining walls, subways, A34 footway/cycleway overbridge, gyratory	0.75m upwards or downwards
N/A	Any other work comprised in the authorised development	0.5m upwards or downwards

2.6.74 The EIA conclusions regarding likely significant effect as presented within this ES are based on the Scheme (as detailed in the **General Arrangement Plans (Document Reference 2.5)** and **Engineering Plans and Sections (Document Reference 2.6))** and have taken into account and assessed the LoD as set out in the **Works Plans (Document Reference 2.3)** and the **draft DCO (Document Reference 3.1)**.

2.7 Permanent and temporary land take

2.7.1 The extent of land use requirements during construction and operation are defined by permanent and temporary land take requirements. These are shown within the Application Boundary on the **Land Plans (Document Reference 2.2)**. Details of the extent of compulsory acquisition and land take requirements are set out and justified within the **Statement of Reasons (Document Reference 4.1**) and the accompanying DCO Application.

2.7.2 Permanent land take is required to construct, operate and maintain the Scheme and includes the footprint of all the proposed highway infrastructure, earthworks and drainage works, also includes the areas for environmental mitigation such as landscape planting and areas of habitat replacement. Further details on the essential landscaping areas as shown on **Figure 2.3** (**Environmental Masterplan**) of the **ES** (**Document Reference 6.2**).

2.7.3 Temporary land take is required to assist the Principal Contractor in the construction of the Scheme, including working areas, site compounds and topsoil storage areas.

Demolition

2.7.4 No residential or commercial properties would be required to be demolished to facilitate the construction of the Scheme.

2.7.5 The existing gyratory bridge structures would be demolished to facilitate the Scheme construction.

2.8 Construction

2.8.1 The approach to construction described below is representative of the approach to be adopted and has been defined taking advice from the appointed buildability advisors for the Scheme.

Construction activities

2.8.2 The construction activities for the Scheme would be typical of a major highway scheme and consist of the following:

- Preparatory works (technically falling outside of ‘construction’ activities) comprising archaeological investigation and ground investigation works including trial pits, remedial work in respect of any contamination or other adverse ground conditions, ecological surveys and mitigation works, site set up works (including the erection of temporary fencing and provision of access points), top-soil stripping and stockpiling for access points and compounds

- Installation and use of temporary access and haul routes

- Removal of existing infrastructure
- Routing of services and utilities
- Establishment of site compounds, laydown areas and facilities including temporary offices and welfare facilities, vehicle parking, material storage areas and worksites
- Vegetation clearance
- Statutory utility diversions
- Bulk earthworks
- Drainage works
- Construction of structures including piling
- Road pavements works
- Signage and road marking
- Landscape and planting works
- Fencing

2.8.3 For the purpose of the EIA, the site preparation and construction phase would include consideration of the demolition of existing infrastructure required to facilitate the Scheme.

Construction working hours

2.8.4 Working hours would be restricted to the following core hours:

- 07.00 to 19.00 Monday to Friday
- 07.00 to 13.00 Saturday
- No Sunday working

2.8.5 Works outside of the core working hours are likely to be required in certain circumstances and would be carried out following consultation with Winchester City Council. These works are currently envisaged to comprise:

- Lifting of gantry and large signs onto concrete bases due to the need for a larger working area to ensure the safety of the workforce and minimise disruption to traffic

- Works predominantly within the M3 and A34 corridors which would be similar to maintenance works e.g. planing, resurfacing, painting road markings
- Closing of gyratory slip roads to allow re-alignment works to take place
- Full closures of the M3 will be required when installing/demolishing gyratory bridges
- Installation and removal of barriers to allow traffic management switches to take place

2.8.6 There may also be circumstances where works would continue outside of core working to allow for efficiencies and engineering reasons. Examples of these would be to complete a concrete pour or to complete an excavation to a safe completion point.

2.8.7 A Section 61 application under Control of Pollution Act 1974 for the works would be made (prior consent for work on construction sites) and agreed with the Winchester City Council, and further controlled through the Noise and Vibration Management Plan secured by the **fiEMP (Document Reference 7.3).**

Construction phasing

2.8.8 The construction phase of the Scheme is estimated to commence in late 2024, with operation anticipated to commence in winter 2027. The construction phase would be programmed and sequenced to reduce disruption to the local surroundings and the environment, residents, business, and road users as far as practicable.

2.8.9 It is currently envisaged that the construction phase would be split into four main phases 0 -3. Within each phase, the following activities would be undertaken with traffic management to establish space for the works to be carried out. Landscaping would be carried out continuously through the construction phases where the relevant section of works has been completed.

Phase 0 - site set up and construction prep

- Vegetation clearance
- Ecological mitigation
- Temporary Site Compound Access / Egress via the A272
- Compound establishment
- Archaeological preparatory works
- Service enabling works and service diversions

- Commencement of temporary traffic management (realignment of existing M3 running lanes) in order to facilitate construction

Phase 1 (approximately one year) (including Phase1a and 1b)

- Ecological mitigation
- Realignment of the M3 southbound on-slip due to change of ALR scheme
- Earthworks (earthworks to the east side of the M3, to facilitate the new southbound off-slip)
- Road realignment to east of the M3 (temporary lane realignment of M3 to enable verge and central reserve works to be undertaken)
- Kingsworthy Bridge strengthening (nights)
- Central reserve works (construction of crossovers)
- Construction of new gyratory bridges (in the verge)

Phase 2 (approximately one year)

- Construction of M3 and A34 underpasses
- Road realignment
- Road resurfacing
- Drainage works
- Construction of new gyratory bridges and demolition of existing gyratory bridges

Phase 3 (approximately one year) (including Phase 3a and Phase 3b)

- Road realignment
- Earthworks
- Drainage works
- A34 bridge improvement works
- Construction of walking, cycling and horse-riding routes
- River Itchen cycle/footbridge construction
- Installation of signs, barriers and gantries

- Construction of A34 attenuation basins

2.8.10 The construction programme would be finalised by the Principal Contractor in advance of the works. The Principal Contractor would maximise the re-use of excavated materials as fill (where possible) to reduce the number of construction vehicles travelling on the network.

Temporary construction compounds

2.8.11 In order to facilitate construction of the Scheme, a number of temporary accesses and construction compounds would be required. The description of compound locations below should be read in conjunction with **Figure 2.1 (Preliminary Construction Plan)** of the **ES** (**Document Reference 6.2**):

- A central temporary construction compound (**A272S Ch 822 - 961**), located to the immediate east of Junction 9. Activities within this compound would include plant storage, car parking, fuel and water storage, 'skills school', staff welfare facilities, waste segregation areas and a wheel wash. Additionally, the area would be utilised for material storage, a tree and hedging nursery area and material processing (earthworks and pavements), and storage of topsoil

- Two smaller areas within the footprint of the Junction 9 gyratory roundabout **(M3N Ch 725)**, used to facilitate construction of the new gyratory bridge

- A small satellite compound located between the A33/A34 and M3 **(M3NB MER Ch 118)**. Activities at this compound would include car parking and storage as well as staff welfare facilities, which would typically be two storeys at approximately 5m in height

2.8.12 It is anticipated that temporary heras (metal mesh fencing) (or similar) fencing (inside existing hedgerows where possible) would be erected to screen and secure compound locations. However, for the main construction compound standard boundary fencing (closed board) would be erected to reduce visual intrusion, provide noise attenuation and ensure public safety.

2.8.13 The temporary compounds would also be subject to surface water drainage measures to avoid significant environmental effects. Such measures would include (refer to the **fiEMP (Document Reference 7.3)** for further details):

- Reducing the amount of topsoil stripping where possible and soil stockpiles would be located as far from watercourses as practicable

- Use of silt fences

- Plant and wheel washing and haul road damping in designated areas

- Plant to be re-fuelled in designated locations at a safe distance from water courses and good practise to be in place with relation to pollution prevention (adequate bunding, storage etc)
- Spill kits are to be positioned at strategic locations on site and thorough training provided for staff to ensure a rapid and effective response to any pollution incidents that occur on site
- Use of an Ecological Clerk of Works / Environmental Manager, along with toolbox talks and training to promote contractor awareness of pollution risks

2.8.14 Refer to **Chapter 3 (Assessment of Alternatives)** of the **ES (Document Reference 6.1**) for further information on the selection process to identify the locations of temporary construction compounds.

Construction plant

2.8.15 Construction of the Scheme would require a large quantity of plant and equipment. The principal plant anticipated to be required to facilitate construction are:

- Pulveriser
- Tracked excavators
- Dumper trucks
- Bulldozers
- Rollers
- Piling rig
- Concrete pumps
- Road planers and pavers
- Graders
- Tractors
- Generators
- Cranes

2.8.16 Exact plant numbers and type would be determined by the construction methodology and volume of material to be handled on site, subject to detailed design work. **Appendix 11.1** (**Construction Activities in Noise and Vibration Assessment**) of the **ES** (**Document Reference 6.3**) presents the worst-case which has been assessed. (It is anticipated that construction methods would follow

standard construction practices and specific mitigation measures would be implemented and tailored to the Scheme as required.

Materials

Re-use of spoil on site

2.8.17 It is anticipated that some of the spoil generated in the construction phase would not be suitable for re-use in the Scheme construction and would have to be exported off site to landfill. It is anticipated that between 30,000 and 50,000 m^3 of spoil could be generated that may not be appropriate for re use. With a bulking factor of 30%, the likely worst case scenario of spoil to be transported away from the Scheme would be 65,000 m^3. Assuming the use of an $8m^3$ HGV it is considered that up to 8,125 two-way vehicle movements would be required. The most likely final destination of this material would be the Rookery Farm Landfill approximately 30km to the south of the Scheme along the M3 then east on the M27.

Import of materials

2.8.18 There would be a requirement to import materials to the Scheme, which is currently anticipated to require 9,400 HGVs capable of carrying $8.5m^3$ of material.

Construction traffic management

Indicative construction vehicle types and movements

2.8.19 Indicative temporary haul routes are shown in **Figure 2.1 (Preliminary Construction Plan)** of the **ES** (**Document Reference 6.2**).

2.8.20 There would be a requirement for construction-related vehicle movements. It is currently envisaged that over the course of the construction period, there would be approximately 25,000 movements of vehicles each carrying $8m^3$ to manage the relocation of earth and spoil materials within the Application Boundary. It is anticipated a proportion of these movements, (circa. 8,300 movements) would use the highway network due to the phasing of the traffic management but the remaining movements would be off the network.

2.8.21 Concrete batching is not proposed to take place within the Application Boundary, requiring the import of concrete through approximately 2,600 wagons capable of carrying $7.5m^3$ of material across the construction period. There would be a requirement to import materials to the Scheme, which is currently anticipated to require 9,400 HGVs capable of carrying $8.5m^3$ of material. An average of 100 staff car parking spaces and 200 operative parking spaces are anticipated to be required daily across the Scheme during the construction phase.

2.8.22 It is envisaged that the Principal Contractor would operate in accordance with relevant best practices, such as the Considerate Constructors Scheme. The

Principal Contractor would control and limit noise, vibration and dust levels as far as practicable to minimise impact to sensitive receptors. Prior to and during construction activities, the Principal Contractor would engage regularly with key stakeholders to provide an opportunity to raise issues and discuss matters directly.

2.8.23 It is envisaged that speeds on the M3, A33 and A34 would be limited to 50mph during the construction phase. During Phase 2 speed limits may be further reduced to 40mph along the M3 due to the temporary re-alignment. During Phase 3A speed limits may also be reduced further again to 30mph for a short duration southbound along the A34.

Indicative construction delivery vehicle routing

2.8.24 Due to the Scheme's location on the strategic road network, it is anticipated that delivery vehicles would be routed to the Scheme from the north and south. When accessing from the north, delivery vehicles would leave the M3 at Junction 8, continue in a westerly direction along the A303, and then continue in a southerly direction along the A34 to the Scheme.

2.8.25 When accessing from the south, delivery vehicles would leave the M3 at Junction 9 and access the construction areas off the gyratory roundabout. Depending which area of the Scheme is being accessed, if required, delivery traffic would also continue north through the gyratory, along the A34 and turn around at Three Maids Hill, then continuing south along the A34 to the M3 Junction 9 Improvement site.

2.8.26 Measures to encourage and promote delivery vehicles using prescribed routes would be sought and agreed with relevant stakeholders, subject to ongoing design work. There would also be early engagement with the Supply Chain Partners to ensure the vehicles comply with current safety standards and follow the designated delivery routes as outlined above**.**

2.8.27 Further detail can be found within the **Outline Traffic Management Plan** (**Document Reference 7.8**).

Indicative Temporary Traffic Diversions

2.8.28 Various forms of traffic management would be required during construction to safely manage the interface between the motorists and construction workers and to facilitate construction of the Scheme. This would include temporary lane closures or limited road closures on the road network. The management of traffic has been carefully planned to minimise delay to motorists whilst providing maintaining safety wherever possible.

2.8.29 To seek to promote the use of designated diversion routes by commercial vehicles in the area, temporary hard signage would be installed on the affected local routes in advance of any closures. In addition, this information would be added to overhead or temporary variable message signs as needed (see **Insert 2.1** an example). There would be a news release by the National Highways press office

as well as information added to the National Highways website and also social media.

2.8.30 Furthermore, any road closures would be discussed and notified in advance with local stakeholders particularly those businesses in close proximity to the Scheme. The closures would also be notified in letters to key local residents/stakeholders and the surrounding villages.

Further details would be outlined in the **Outline Traffic Management Plan** (**Document Reference 7.8**).

Insert 2.1: Temporary variable message sign

2.8.31 **Table 2.4** describes what is reasonably considered to be the likely temporary traffic diversion scenarios.

Table 2.4: Likely traffic diversion scenarios

Road/section closed	Description	Duration & instances	Drawing reference
A34 Southbound	Traffic heads south at Three Maids Interchange on B3420, then south on B3049, then on B3040 onto Badger	10 X Overnight off-peak	**Figure 2.5 (Temporary traffic**

Road/section closed	Description	Duration & instances	Drawing reference
	Farm Road. Traffic would be split at the roundabout for non-motorway traffic. Non-motorway traffic would travel north onto St Cross Road towards Bull Drove, north onto the A31 and back up to the M3 J9 gyratory. Motorway traffic would continue to the M3 J11 and continue on the M3 northbound to J9. *Note: At the junction with A303 and A34 eastbound, the exit-slip from A303 to A34 would be fully closed and diverted traffic would travel to the M3 J7 and follow the M3 southbound to J9.* *Note: At the B3420 (Andover Road North) at the junction with Harestock Road, the road would be closed to force diverted traffic right onto Harestock Road.*		**diversion routes**) of the **ES**, Sheet 2 (**Document Reference 6.2**)
A34 Northbound	Temporary closure of the A34 northbound from the gyratory. Traffic would travel south on the A272 and then south on A31. From the entry-slip of M3 J10 traffic would be split to accommodate non-motorway traffic. Non-motorway traffic would travel west along Bull Drove, then south on B3335, north on Badger Farm Road, motorway traffic shall be diverted on to M3 southbound from J10 and would exit at J11. At the end of the slip road, traffic would turn right onto the B3555 and then turn left onto Hockley Link at J11 roundabout, traffic would then turn right towards Badger Farm Road and continue north-east on B3041, turn north onto B3041 and up towards the Three Maids Interchange.	10 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 1 (**Document Reference 6.2**)
M3	A34/A303 would be the main diversion route when the M3 is fully closed between Junctions 8 and 9.	6 X Full weekend closures (Phase 2)	**Figure 2.5 (Temporary traffic diversion**

Road/section closed	Description	Duration & instances	Drawing reference
			routes) of the **ES**, Sheet 12 (**Document Reference 6.2**)
M3 Northbound Junction 11-9	Traffic heading northbound would leave the M3 at J11 off the slip road, take the first exit at the roundabout and follow the Hockley Link. At the second island, traffic would take the first exit onto A3090 Badger Farm Road, and after the third island take the 1st first exit continuing along A3090 Badger Farm Road. After the forth island, traffic would take the 2nd exit onto B3040 Romsey Road and continue along B3040 at the junction with B3041. (Chilbolton Avenue) take the first exit and continue along B3041. At the junction with B3049 (Stockbridge Road), traffic would turn left and continue along B3049 (Stockbridge Road). At the junction with Harestock Road, traffic would turn right and continue. At the junction with B3420 (Andover Road Rd), traffic would turn left and continue along the B3420. At the island (Three Maids Hill) traffic would take the 3rd exit and follow to A34 east and continue along the A34 east to M3 Junction 9 where the diversion would end. For M3 J10, northbound traffic would leave M3 at the Junction 11 off-slip road, then taking the first exit at the roundabout and follow Hockley Link. At the second island, traffic would take 3rd exit onto B3335 St Cross Road. At the junction with Kingsgate Road, traffic would turn right and continue to follow Kingsgate Road at the junction with Garnier Road, then turn right and follow	16 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 8 (**Document Reference 6.2**)

Road/section closed	Description	Duration & instances	Drawing reference
	onto Bull Drove and M3 Junction 10 where diversion would end.		
M3 Southbound Junction 9-10	Southbound traffic would leave the M3 at the J9 exit slip onto A272 and head south to J10 of the M3.	16 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES,** Sheet 9 (**Document Reference 6.2**)
Easton Lane Northbound	Traffic would travel south on Winnall Manor Road and east along B3404, followed by heading south on A31 and then heading north on Spitfire Link back to the gyratory.	5 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES,** Sheet 4 (**Document Reference 6.2**)
Easton Lane Southbound	Traffic would head south on A272 Spitfire Link and east onto A31, then north up to B3404 west over the M3, then north onto Winnall Manor Road and back onto Easton Lane.	5 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES,** Sheet 5 (**Document Reference 6.2**)
Junction 9 Northbound on-slip	Temporary closure of the slip road from Junction 9 on to the M3 Northbound. Traffic wishing to head north on the M3 would utilise the Junction 9 gyratory, then head south on the M3 to Junction 11, where access to the M3 northbound would be gained.	17 months	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 6 (**Document Reference 6.2**)

Road/section closed	Description	Duration & instances	Drawing reference
Junction 9 Southbound on-slip	Temporary closure of the slip road from Junction 9 on to the M3 southbound. Traffic wishing to head south on the M3 would utilise the A272 southbound, past the A31 roundabout and on to the M3 southbound at Junction 10.	10 X Overnight off- peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 11 (**Document Reference 6.2**)
Junction 9 Northbound off-slip	Temporary closure of the slip road leading off the M3 northbound to Junction 9. Northbound motorway traffic wishing to leave the M3 at Junction 9, would continue north to Junction 7 and return to M3 J9 southbound exit-slip. Alternative route – exit at Junction 10 and head north on A31 and A272 to meet at Junction 9 gyratory.	10 X Overnight off-peak (extended may assist with building underpass)	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 7 (**Document Reference 6.2**)
Junction 9 Southbound off-slip	Temporary closure of the slip road leading off the M3 southbound to Junction 9. Southbound traffic wishing to leave the M3 at Junction 9 would continue south to Junction 11 to access the M3 northbound back to Junction 9.	10 X Overnight off-peak (extended may assist with building NE underpass)	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 10 (**Document Reference 6.2**)
A272/Spitfire Link	Preferred - Vehicles travelling south along the M3 would then continue south to Junction 11 (onto B3335) and then head north back onto the M3. Traffic would then exit at Junction 10 and head north onto A31. Vehicles heading north would exit at Junction 10 and head east along A31, north and then head west along to B3047 and then south on A33/A34.	10 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES,** Sheet 3 (**Document Reference 6.2**)

Road/section closed	Description	Duration & instances	Drawing reference
	Other traffic would utilise Easton Lane into Winchester, accessing the B3404 to join the A31.		
A33	Temporary closure of the A33 southbound/northbound at Kings Worthy to the A34 (Kings Worthy Link). Preferred route – A31 and B3047 route (both directions). Junction 10 to Badger Farm Road, up to Harestock Road, and Andover Road North.	10 X Overnight off-peak	**Figure 2.5 (Temporary traffic diversion routes**) of the **ES**, Sheet 1 and 2 (**Document Reference 6.2**)

2.8.32 Note that the diversion routes identified in **Table 2.4** and shown on **Figure 2.4** (**Temporary Traffic Diversions)** of the **ES (Document Reference 6.2)** are illustrative and provide the likely worse case scenarios for assessment purposes. Consultation remains ongoing with the permitted authority (Hampshire County Council) in relation to temporary diversions to seek agreement on these temporary routes.

Temporary diversions of walking, cycling and horse-riding routes

2.8.33 During the construction phase, there would be periods where existing PRoW would be required to be temporarily closed and diversion routes would be implemented to maintain connectivity and access for walking, cycling and horse-riding users.

Phase 1 and 2

- Due to the intrusive nature of the works required to construct the new gyratory abutments, there would be a period of time where users would be required to be diverted from the existing National Cycle Network 23 through the gyratory. From the eastern side of the gyratory, walkers users would be diverted northwards along Easton Lane and Long Walk, then south towards Winnall via the Itchen Way. The underpass under the M3 (Long Walk) is also proposed to be utilised as a temporary haul route for construction vehicles (see **Figure 2.1** (**Preliminary Construction Plan)** of the **ES (Document Reference 6.2)).** Access would be shared with walkers through the M3 underpass, who would be segregated from traffic by the separate existing pavements. A traffic light system would be utilised to allow two-way movement through the underpass

- The crossing under Kingsworthy Bridge would continue to be used during times of bridge strengthening works but may be subject to restrictions to maintain the safety of walkers
- From the eastern side of the gyratory, cyclists would be diverted along Easton Lane, then south to Arlesford Road

Phase 3

- During phase 3, it is anticipated that the new gyratory bridge would have been constructed and thus access through the revised alignment of National Cycle Network Route 23 would be possible
- When the new gyratory bridges have been installed and the existing bridges demolished, access would be provided over the new bridge
- In this phase, works would be taking place for the new River Itchen cycle/footbridge so access would be restricted through this location for a short period
- The temporary footpath diversions are detailed on **Figure 2.6** (**Temporary Diversion of Walking, Cycling and Horse-riding Routes)** of the **ES** (**Document Reference 6.2**)

First iteration environmental management plan

2.8.34 A **fiEMP (Document Reference 7.3**) has been developed, which includes all Scheme specific mitigation measures and commitments identified through the assessment process to control, reduce and reduce environmental effects. The mitigation, measures and commitments are outlined within a Register of Environmental Actions and Commitments (REAC) within the **fiEMP (Document Reference 7.3)**. An Environmental Management Plan is a live document which would be updated throughout the design, detailed design, construction and aftercare stages. However, **Table 2.5** outlines the three distinct Environmental Management Plans which would be prepared for the design, construction and the end of construction stages to be signed off / submitted for discharge of DCO Requirements for the Scheme.

Table 2.5: Delivery schedule and updates to the Environmental Management Plan

Project stage	EMP name	Produced/refined
Design	First iteration of EMP or fiEMP produced during the design stage for the preferred option	Produced

Project stage	EMP name	Produced/refined
Construction (refined for the consented Scheme)	Second iteration EMP or siEMP refined during the construction stage for the consented scheme, in advance of construction	Refined
End of construction	Third iteration EMP or tiEMP building on the construction EMP refined at the end of the construction stage to support future management and operation	Refined

2.8.35 Prior to the commencement of construction, the Environmental Management Plan would be refined by the Principal Contractor, in line with DMRB LA 120 Environmental Management Plans.

2.8.36 Upon completion of construction of the Scheme, the siEMP would be converted into the tiEMP.

2.9 Operation and Maintenance

2.9.1 Once the commissioning activities have taken place, the Scheme would be open to traffic and handed over to National Highways and Hampshire County Council who would operate the various roads. The Principal Contractor would be responsible for any construction defects that arise for a period of 12 months after opening.

2.9.2 Environmental works would be maintained by the Applicant for five years after completion of those works to ensure that they become appropriately established and maintained. These are outlined in the **fiEMP (Document Reference 7.3**) and supported by the Outline Landscape and Environmental Management Plan (LEMP) (**Appendix 7.7 (Outline LEMP)** of the **ES** (**Document Reference 7.3)**). Once the five-year aftercare period has ended, the Scheme will be handed over to National Highways Operations and will be maintained in accordance with National Highways standard procedures.

2.9.3 The drainage strategy for the Scheme (**Appendix 13.1 (Drainage Strategy Report)** of the **ES (Document Reference 6.3))** would require ongoing maintenance, and a Maintenance Schedule (**Section 8** of the above document) has been proposed to demonstrate that performance can be maintained at sufficient levels over the lifetime of the network, which includes litter management, grass cutting, inspection of filtration devices, basins, chambers, traps, channels, storage features and inlets/outlets/gratings as well as vegetation management.

2.10 Decommissioning

2.10.1 It is considered very unlikely that the Scheme would be decommissioned. Typically, highway schemes are designed to have a material life-span of between 20 and 40 years before major maintenance and upgrading is required dependant on material properties, maintenance and usage. Elements including structural concrete and steelwork have extended design lives of up to 120 years.

2.10.2 Therefore, the road is likely to have become an integral part of the national infrastructure in the area and decommissioning would not be either feasible or desirable. The Planning Inspectorate agreed with this approach but stated 'the ES should include an assessment of any decommissioning works required for temporary elements. Therefore, decommissioning of temporary elements of the Scheme has been considered in the construction phase assessment of **Chapters 5-14** of the **ES** (**Document Reference 6.1**).