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CORK CITY TO VIADUCT GREENWAY PHASE I - TRAMORE ROAD TO EAGLE VALLEY

Planning and Environmental Report

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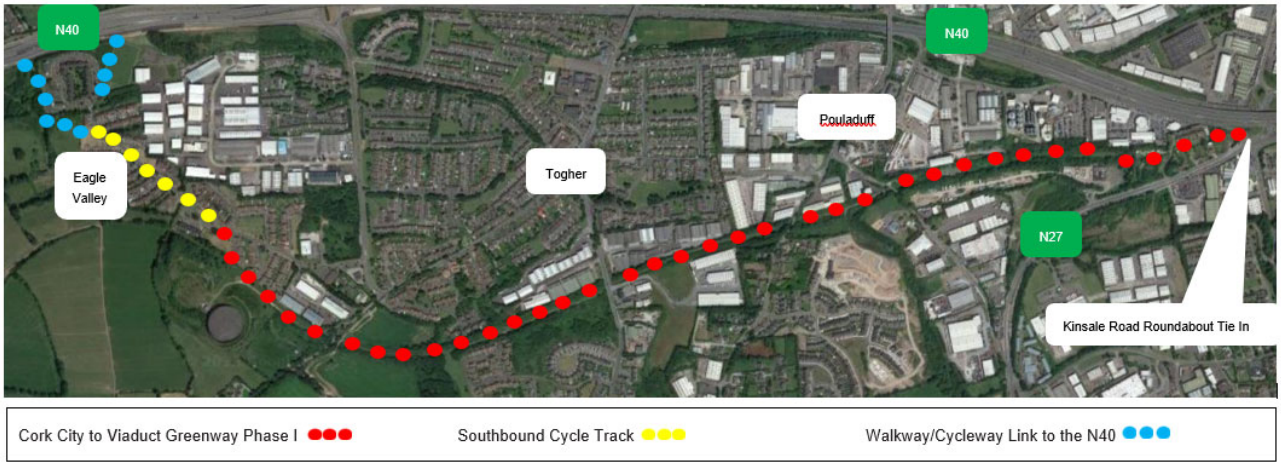
1 INTRODUCTION

1.1 Background

Cork City Council (CCC) is proposing to create a Greenway for pedestrians and cyclists between Tramore Road and Eagle Valley. The proposed facility will be a commuter and recreational active travel facility, which will be an enhancement of a section of the former West Cork Railway corridor. The Greenway is intended to form part of a longer Greenway route in the future and is therefore termed the Cork City to Viaduct Greenway, Phase I (the Greenway).

To inform the development proposal, constraints and options were identified within a local study area for the proposed route and a preferred option was identified. The proposed scheme has been developed based on the outcome of this process. The Greenway consists of a 2.9km route along the section of the former West Cork Railway corridor between Chetwynd Reservoir and Kinsale Road Roundabout. A car parking area and cycle hub will also be provided to support the Greenway to the east of Forge Hill. Three short sections of new infrastructure for cyclists / pedestrians will provide links to the Greenway; two sections will connect to Eagle Valley from the N40 via a new cycle track within the housing development itself. The location of the proposed Greenway route and links is shown in **Figure 1-1** below.

Figure 1-1: Location of Proposed Greenway Route and Proposed Links



The proposed development predominantly comprises of the provision of new sections of, and widening and resurfacing of existing tracks, to provide a landscaped greenway between Kinsale Road and Eagle Valley; three new sections of infrastructure to provide links to same from existing facilities; necessary drainage and fencing; new public lighting; crossing facilities; a car park and cycle hub; and enhancement works to heritage features along the route that were associated with the former rail line.

1.2 Purpose of Report

The Greenway project is proposed by CCC as a local authority development under section 179 of the Planning and Development Act, 2000 (as amended) (PDA) and Part 8 of the Planning and Development Regulations, 2001 (as amended) (the PDRs). Article 83 of the PDRs requires a local authority to make available a document describing the nature and extent of the proposed development and the principal features thereof. In this regard, this report firstly sets out a description of the site location and surrounding area and provides a description of the proposed works. In addition, the report sets out the key planning and environmental considerations for the proposed scheme. Strategic and statutory planning policies and relevant objectives of relevant plans are identified to enable the proposal to be assessed against these relevant policies and objectives. Consideration is also given to the key environmental aspects and issues that may potentially be impacted by the proposed works. As appropriate, the findings and provisions of other reporting are referenced.

1.3 Consent Requirements for the Scheme

1.3.1 Overview

As noted above the Greenway is being proposed by CCC as a local authority development under section 179 of the Planning and Development Act, 2000 (as amended) (PDA) and Part 8 of the Planning and Development Regulations, 2001 (as amended) (the PDRs).

Screenings have been undertaken for the need for environmental impact assessment (EIA) and appropriate assessment (AA) and the requirement for both has been screened out (see below). Therefore, there is no requirement for approval from An Bord Pleanála under either section 175 or 177AE of the PDA. The proposed development is not of a type that is prescribed under the Roads Act, 1993, as amended (the Roads Act), as a specific type of roads development that requires a consent process under that legislation.

The lands being proposed to be used for the development are predominantly in local authority (Cork City Council) or other public ownership (Irish Water). Six private landowners have properties along the route and land acquisition will be required in those areas, which will be undertaken by agreement or by compulsory purchase if necessary.

1.3.1.1 Local Authority Own Development

Section 179 of the PDA states that certain local authority own development may be prescribed to comply with the provisions of that section of the PDA and with any regulations made under it. Generally, the requirements set out in the Act and Regulations require the local authority to publish specified notices with respect to the proposed development; to notify or consult with any relevant prescribed authorities and provide them with documents, plans, particulars of other prescribed information; to make same available to members of the public for inspection; and to facilitate the making of submissions or observations to the local authority with respect to the proposed development.

Subsection 179(6) clarifies that the section does not apply to certain categories of development, including amongst others, development for which an EIAR is required under section 175 of the PDA or for which an appropriate assessment is required under section 177AE of the PDA. None of the foregoing are applicable to the proposed development (as confirmed through the screening processes undertaken by Cork City Council and described below).

Part 8 of the PDRs (Article 80) specifies the classes of local authority own development that is to fall within the provisions of section 179. Those considered of relevance to the current Greenway proposal include:

> *"(b) the construction of a new road or the widening or realignment of an existing road, where the length of the new road or of the widened or realigned portion of the existing road, as the case may be, would be— (i) in the case of a road in an urban area, 100 metres or more, or (ii) in the case of a road in any other area, 1 kilometre or more1, …" and,*
>
> *"(k) any development other than those specified in paragraphs (a) to (j), the estimated cost of which exceeds €126,000, not being development consisting of the laying underground of sewers, mains, pipes or other apparatus."*

The proposed development consists of the provision of a Greenway of almost 3km with shorter additional spurs, is estimated to cost significantly over €126,000 and therefore comprises of development specified under Part 8 of the PDRs.

[1]Section 2(1) of the Roads Act, 1993 (as amended) defines a 'public road' as a *"road over which a public right of way exists and the responsibility for the maintenance of which lies on a road authority*". It clarifies a 'road authority' as meaning a "local authority". Section 2(1) of the PDA provides that "public road" and "road" have the same meaning as in the Roads Act, 1993. Section 68(1) of the Roads Act, 1993 (as amended) defines a 'cycleway' as a "*public road or proposed public road reserved for the exclusive use of pedal cyclists or pedal cyclists and pedestrians*". For the proposed development if it is interpreted that a 'cycleway' and 'greenway' are one and the same thing and are provided for in the definition of a public road with reference to Section 68(1) of the Roads Act. This interpretation is in line with the High Court Judicial Review Judgement ([2021] IEHC 459 (2021 No. 20 JR and No. 19 JR)[1]) of Justice Humphreys in respect of the South Kerry Greenway application.

1.3.1.2 Screening for Environmental Impact Assessment

On behalf of Cork City Council, RPS prepared a report to inform EIA screening for the proposed Scheme. This considered both mandatory and subthreshold development EIA requirements under both planning and roads legislation. The report concluded firstly that EIA was not mandatory under either legislative code, and secondly that the development comprises a subthreshold development type. As article 120 of the PDRs and section 50(1)(c) of the Roads Act both place obligations on a Planning Authority to consider whether a subthreshold development is likely to have significant effects on the environment, the report to inform EIA screening also considered the potential significance and likelihood of effects of the development on the environment. The report concluded that no significant effects were likely and accordingly subthreshold development EIA was also not required in this instance.

The local authority considered this report and concurred with its conclusion that EIA is not required. A copy of the EIA screening determination of Cork City Council is included with this planning application.

1.3.1.3 Screening for Appropriate Assessment

Under Article 250 of the PDRs, to ascertain whether an appropriate assessment is required in respect of a development which it proposes to carry out, a local authority must carry out a screening of the proposed development to assess if the development would be likely to have a significant effect on a European site. If, based on such a screening it cannot be excluded that the development would have a significant effect on a European site, the local authority must determine that an appropriate assessment is required, must prepare a Natura Impact Statement and must submit an application for the proposed development to An Bord Pleanála for approval under section 177AE of the Act.

In this regard, Greenleaf Ecology prepared a Report to Inform AA Screening for the proposed development for Cork City Council. Two European sites were identified as being located within 15km of the proposed works, i.e. Great Island Channel Special Area of Conservation, and Cork Harbour Special Protection Area Potential connectivity from the development site to these sites via three watercourses that flow into Lough Mahon was examined as part of the screening considerations. Factors considered were the distance between the proposed works and these European sites, the nature of the works which do not involve any instream or culverting works to the streams crossed and the nature and scale of the drainage channel to be bridged, and the operational drainage proposals which include for a bypass interceptor for run-off from the proposed car park. No potential for significant effect was considered to arise, and accordingly the report concluded that it is not necessary to carry out an AA.

The local authority considered this report and concurred with its conclusion that AA is not required. A copy of the AA screening determination of Cork City Council is included with this planning application

1.3.2 Conclusions on Consent Requirements

Having regard to the foregoing, it is concluded that as an EIA or an AA are not required under either the PDA or the Roads Acts, and as no consent is required under the Roads Acts[2], the scheme may be progressed under the Part 8 procedures.

1.4 Documents and Procedures

In line with the provisions of the PDA and the PDRs with respect to local authority own development, the following documents have been prepared:

- Newspaper notice published in the Irish Examiner.
- A copy of the site notice, which has been erected in a number of locations on site (see mapping provided).
- Planning and Environmental Report prepared by RPS, which includes a description of the nature and extent of the proposed development and the principal features thereof.

[2] Land acquisition is required for the implementation of the scheme, and should Compulsory Purchase Order be necessary, the appropriate application will be made to the Board, however this is considered unlikely.

- Report to Inform EIA Screening prepared by RPS.
- EIA Screening Determination, prepared by Cork City Council.
- Report to Inform AA Screening prepared by Greenleaf Ecology.
- AA Screening Determination, prepared by Cork City Council.
- Ecological Impact Assessment, prepared by Greenleaf Ecology.
- Flood Risk Assessment prepared by RPS.
- Conservation Report prepared by JCA Architects.
- Archaeological Impact Assessment for St. Bartholomew's Holy Well prepared by John Cronin and Associates.
- Tree Protection Plan prepared by Green Tree Arborist.
- Maps and Drawings of the Proposed Development, including a Drawing Schedule. The map and drawing pack takes account of the requirements of the PDRs and includes *inter alia* a site location map and scheme layout drawings to a scale of 1,000 (i.e. not less than 1:2500) which scale is considered necessary to describe the development. A broader site location map to a scale of 1:2,500 / 1:10,560 to set the proposed development in its wider context is also included for ease of reference.

Prescribed bodies as per Article 82(3) of the PDRs have been notified of the proposed development and provided with a copy of the documentation in line with the requirements of the legislation. Consultation has been undertaken with the management of the Chetwynd Reservoir regarding the proposed development.

2 SITE DESCRIPTION

2.1 Site Location and Extent

The proposed development is located in the south central / southwest area of the CCC functional area between the eastern end of Tramore Road at the Kinsale Road Roundabout and the Eagle Valley housing development at Wilton in the western cork suburbs. The site for proposed works also includes the main spine road within Eagle Valley, and lands between Eagle Valley and the N40 in two locations to facilitate links to the Greenway. The total site area for the proposed Greenway and all associated works is 5.68ha.

2.1.1 Former West Cork Railway Line

The site includes a section of the former West Cork Railway corridor between the Kinsale Road roundabout and the Chetwynd Reservoir. The former rail corridor commences at the southern end of the Kinsale Road roundabout, adjacent to the N27 national road. It continues west past Forge Hill, Lehenaghmore Road (L-2455), Togher Road (L-2454) and Spur Hill as far as the Chetwynd Reservoir.

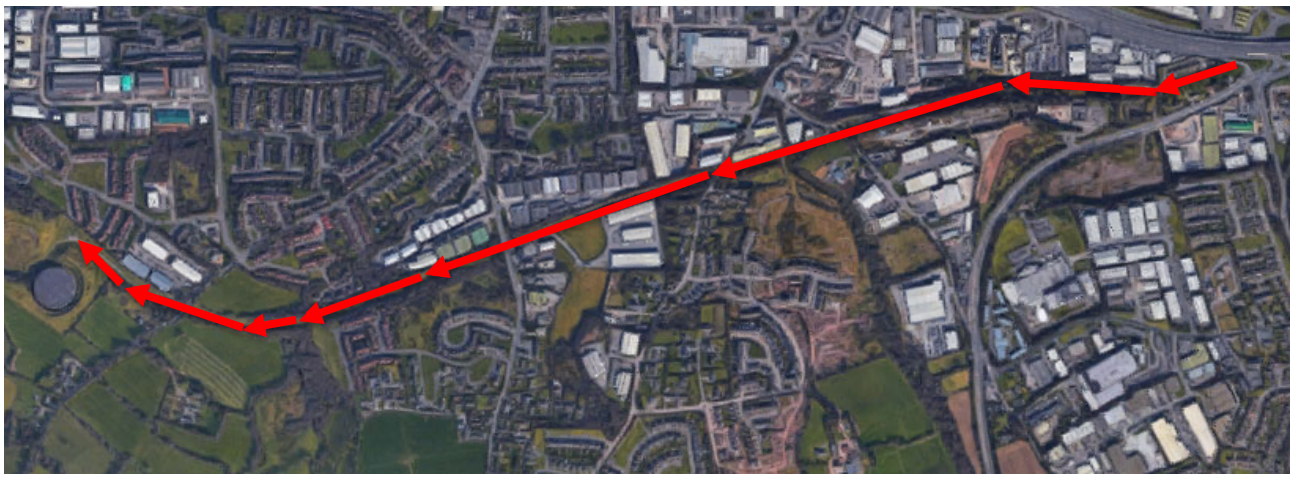
The route of the former railway corridor is largely unoccupied and free of development and accommodates some form of walkway in places. There are two locations where the former railway corridor is occupied by uses other than a walkway. The first is at Hazelwood Grove in the form of a Traveller Accommodation and Yard site. The second part of the route which supports an active use other than as a pathway is within the boundary of the Chetwynd Reservoir site. The parts of the reservoir site along the former railway line however comprise an access road and open space only.

A section of this old railway corridor has been developed as a walkway between Togher Road (L-2454) and Lehenaghmore Road (L-2455). The hard surfaced track is narrow, and surveys confirm that existing levels of use are low. The remaining sections are largely overgrown with more informal tracks evident from some limited usage. It is considered that the tracks in place currently serve a localised and limited amenity function. Other areas of the site are overgrown and inaccessible with thick vegetation of briars, gorse and scrub restricting access to some sections, in particular the bridges, and the site of a former Traveller accommodation development at Forge Hill.

The former rail line includes former railway bridges at Forge Hill, Lehenaghmore Road (L-2455) and Spur Hill. It intersects two streams, the Douglas (Lee) Stream and the Lehenagh Beg stream by way of existing culverted crossings.

Figure 2-1 provides an overview of the section of the former West Cork Railway Alignment which forms the general route and extent of this scheme

Figure 2-1: Relevant Section of the Former West Cork Railway Alignment



2.2 Route Description

2.2.1 Overall Greenway Route

The proposed Greenway where it will be sited along part of the former West Cork Railway corridor, is intersected by a number of roads. These are Spur Hill, Togher Road (L-2454), Lehenaghmore Road (L-2455) and Forge Hill. The route then travels predominantly through existing built-up areas of the city suburbs. To the east of Spur Hill, the proposed development runs along the edge of the existing built-up extent of the city with a more rural setting to the south.

Lands in the vicinity of the route generally comprise residential, industrial and commercial development with some rural and infrastructural uses to the south at its western extent. Commercial/Industrial areas include University Industrial Estate near Chetwynd Reservoir, Lehenaghmore Industrial Estate on Togher Road (L-2454), Southside Industrial Estate, Sitecast Industrial Estate, Pouladuff Industrial Estate, Togher Industrial Estate, South Ring Business Park and Kinsale Road Commercial Centre.

Residential uses are focused mainly in the vicinity of Chetwynd Reservoir and Spur Hill and include Eagle Valley and Fernwood. Hazelwood Grove is immediately adjacent to the proposed Greenway at its eastern end close to Kinsale Road roundabout. Schools, churches and community facilities are concentrated in the village of Togher.

Chetwynd Reservoir, the site of which the Greenway traverses at its western end, is a significant piece of water services infrastructure serving the city.

The following sections detail the main existing land uses surrounding the proposed Greenway along five distinct sections, which are defined by intersections with public roads.

2.2.1.1 Eagle Valley to Spur Hill

The site of the proposed Greenway commences within a public open space area of the residential estate of Eagle Valley, a large well-established residential area. Close to the estate entrance from Sarsfields Road, further residential development has recently been added at Sarsfield Heights and access to residential development at Garrane Darra is also taken from the Eagle Valley estate. From Eagle Valley the greenway enters into and traverses the Chetwynd Reservoir site before crossing under Spur Hill using a former railway bridge. Approaching Spur Hill the reservoir site is bounded to the north by University Hall Industrial Estate which is accessed through Eagle Valley.

To the south of the Greenway at Spur Hill, the area becomes more rural with one-off housing located along Spur Hill with farmland surrounding.

2.2.1.2 Spur Hill to Togher Road (L-2454)

From Spur Hill heading eastwards, the Greenway route is surrounded initially by agricultural lands on both sides. The residential area of Fernwood to the north (accessed from Spur Hill) is initially separated from the route by an agricultural field but has houses backing onto the site further east. At this point, the residential area of Fernwood Crescent and its open space area adjoins the route to the south. Closer to Togher Road (L-2454), lies the Lehenaghmore Industrial Estate to the north, and an area of undeveloped land to the south, beyond which is the Ashbrook Heights residential estate.

2.2.1.3 Togher Road (L-2454) to Lehenaghmore Road (L-2455)

Between Togher Road (L-2454) and Lehenaghmore Road (L-2455) the route is bounded primarily by industrial and commercial uses. On its northern side, accessed from Togher Road (L-2454) is the Colso Temperature Controlled Storage and Logistics site, and accessed from Lehenaghmore Road are the Southside Industrial Estate and the Swans Nest Business Park. To the north of Colso, land use reverts to residential uses in the Togher area. To the north of the Southside Industrial Estate, industrial uses continue along Lehenaghmore Road (L-2455) and Pouladuff Road.

On its southern side from Togher Road (L-2454) the proposed Greenway is bounded by the Route Fourteen Bar and Restaurant, Lehenaghmore Business Park and Westgate Business Park. As the site of the proposed route approaches Lehenaghmore Road (L-2455), to the south are long established one-off housing.

2.2.1.4 Lehenaghmore Road (L-2455) to Forge Hill

On the eastern side of Lehenaghmore Road (L-2455), the Greenway is also bounded to the south by well-established one-off housing. Further east is the recently constructed Farm Lawn housing estate. Closer to Forge Hill the route is bounded to the south by a residential property.

From Lehenaghmore Road (L-2455) to Forge Hill the main uses on the northern side of the Greenway are commercial / retail warehousing units.

2.2.1.5 Forge Hill to Kinsale Road Roundabout

The proposed route continues east within the former railway corridor through an area of former Traveller accommodation units close to Forge Hill and further east to the south of an existing traveller accommodation site and yard. From here the route crosses the access road to Hazelwood Grove, runs through a green area to the south of No. 1 to No. 8 Hazelwood Grove. It follows the north-eastern boundary of the 'The Cottage', a residential property. The proposed development terminates at an existing signalised pedestrian/cyclist crossing, which crosses the N40 westbound on-slip at the junction with the N27/R851 Frankfield Road.

2.2.2 Links to the Greenway

There are three proposed sections of works which are proposed to facilitate links to the Greenway route from existing facilities that are included as part of the proposed development. These include the main spine road within the Eagle Valley housing development where a new cycle track will be provided (shown in yellow on **Figure 1-1**), and two connecting spurs to the N40 from this cycleway which are to be located on lands comprising predominantly of undeveloped lands and land ancillary to established residential developments (shown in blue on **Figure 1-1**). Further detail on the existing status of the locations of these two linkages are provided below:

- A connection from the N40 national primary road to the spine road at Eagle Valley will be provided. The first 170m of this linkage will be located along a former residential access road to a derelict dwelling (Garrane) which comprises elements of disused pavement surfacing and unbound stone material. There are existing mature trees running alongside this access road and heavy/thick vegetation consisting mostly of briars and gorse overhangs sections of it. The route then turns sharply to the east of the former residential access and crosses over an open drainage channel (associated with the adjacent field) before traversing an open field towards Eagle Valley. Within Eagle Valley the route crosses an area of public open space to the south of No. 271A Eagle Valley and the spine road, to reach the afore-mentioned new cycle track location. The retail premises / neighbourhood centre anchored by Dunnes Stores at Bandon Road and its associated car park is located just over 100m to the west of this proposed connection to the Greenway.
- A connection between an existing path / cycle track that runs adjacent the N40 and the Garrane Darra residential complex will also be provided. This area of the site currently comprises of an existing gravel walkway along the edge of a disused football field, formerly the grounds of Richmond AFC. There are mature trees along the western side of the walkway and there is also a fence across part of the site.

3 PROPOSED DEVELOPMENT

3.1 Purpose of Scheme

The rationale for the proposed scheme is set primarily by active travel policies and objectives of strategic and statutory policy and planning documents from national level to local level including a specific objective in the Cork City Development Plan 2022 for 'Walkways and Cycleways' along most of the proposed Greenway route from Spur Hill to Forge Hill. Section 4 of this report sets out the detail of this policy and objective context. In brief however, the need for the proposed scheme has been identified for the following reasons:

- There are active travel deficiencies in this area of the city. The main road network in the area comprises of historically rural routes that that became urbanised over time as the city expanded; the quality of facilities provided for walkers and cyclists varied as this occurred. While upgrades have been undertaken, an east-west linkage is considered necessary to maximise connectivity between the north-south arterial routes in this area of the city and provide linkage to the wider inter-urban cycle and footway network.
- The provision of Greenway and active travel facilities will promote the use of active travel modes and increase their modal split share for commuter trips in the southwest of the city from wider catchment areas, including future zoned lands, and will provide linkage to future regional-scale Greenways and strategic cycle routes.

In short, the proposed Greenway will enhance the provision of sustainable commuter infrastructure within the area, will provide connection to and from part of future leisure routes, and will provide recreational facilities to complement the active travel measures. The scheme represents an opportunity to enhance the built and natural environment along the route, and to develop a high-quality facility that maximises the safety of and amenity for future Greenway users and residents along the route. The proposed linking infrastructure will facilitate enhanced connectivity to the Greenway from existing pedestrian and cycle facilities and local trip generators.

3.2 Description of Development

3.2.1 Project Overview

The proposed development consists of a 2.9km long Greenway along the section of the former West Cork Railway corridor between Chetwynd Reservoir and Kinsale Road Roundabout and an associated car parking area and cycle hub to the east of Forge Hill. The Greenway element of the scheme ends at the Eagle Valley housing estate at its western end, with the links terminating at the edge of the N40 corridor to the east of the Bandon Road Roundabout.

The Greenway route and car park location are as shown in the maps and drawings prepared for this 'Part 8' proposal. The proposed Greenway will intersect a number of roads as it travels from west to east; as advised above, these are Spur Hill, Togher Road (L-2454), Lehenaghmore Road (L-2455) and Forge Hill. The proposed Greenway will cross under the public road at three of these locations (Spur Hill, Lehenaghmore Road (L-2455) and Forge Hill) with the roads carried on stone bridges originally constructed to facilitate the roads crossing over the railway line. At Togher Road (L-2454) the greenway will cross at grade via a toucan crossing.

The proposed new hard-surfaced path, which the Greenway will comprise of, will have a width of 4m for shared use. The paved surface will comprise of a circa 30mm surface course on a circa 50mm binder course which will be laid on circa 150mm subbase.

The main elements of the proposed Greenway development are described below as they apply to the five sections of the Greenway described above in **Section 2.2**. Specific elements pertaining to each section, such as areas of demolition or clearance, provision of fencing (which is necessary due to the proximity of existing residential properties and businesses), open space areas and access points or crossings are described under each relevant heading. Following the description of the proposed Greenway proper by section, further detail is provided on the links to be provided to the Greenway through Eagle Valley from the N40 and on some specific elements of the scheme. The scheme will intersect the main spine road through Eagle Valley whereby it will cross same by way of a raised table crossing.

3.2.2 Proposed Greenway by Section

3.2.2.1 Eagle Valley to Spur Hill

The proposed Greenway commences within an open space area of Eagle Valley, adjacent to the main spine road of this residential estate and to the cul-de-sac which accommodates house numbers 43 – 54. The Greenway will form a junction with the main spine road and associated footpaths, thereby providing direct access for cyclists and pedestrians. From here the proposed Greenway travels south through part of the current open space area to enter the adjoining Irish Water Chetwynd reservoir site. There are associated site development and landscaping works proposed within the open space immediately adjoining the Greenway so that it can be both physically accommodated at an appropriate gradient as well as visually absorbed into this area.

Within the reservoir site the Greenway will pass under electricity overhead lines, traverse an area of open space and cross over an existing 4m wide concrete access road serving the Chetwynd reservoir. The Greenway will run eastwards parallel with, and on the southern side of, this access road towards Spur Hill. Before Spur Hill the Greenway will deviate from the reservoir access road and will continue eastwards to cross under the Spur Hill railway bridge. The reservoir access road junction with Spur Hill will remain at its current location. No structural works are required at the bridge, but the stonework will be cleaned and repaired.

To accommodate this section of Greenway and retain a suitable access road, it is necessary to move the access road approximately 1.7m northwards for circa 300m within the site.

To maintain security within the reservoir site it is necessary to control public access from the Greenway. This requires 2m high palisade fencing to be introduced. For most of the route within the reservoir site the fence is required on the southern side of the Greenway only, with the route to be open to the access road on its northern side. At the western end, the fence is necessary on both sides of greenway separating it from the access road and the various reservoir infrastructure. To facilitate this security arrangement, the existing gate to the reservoir at Spur Hill will be removed and a new gate introduced where the fencing on both sides of the greenway commences. In addition, there will be gates provided on either side of the Greenway where it crosses the access road. There will be a need to clear circa 600m^2 of shrubbery and gorse within the Chetwynd Reservoir site to facilitate the proposed development. New landscaping in this location will be limited due to space limitations.

There will be a requirement to excavate circa 460m^3 of earth for track construction but approximately 60m^3 of this material will be reused for fill material, leaving a net volume of circa 400m^3 to be transported off site.

The realignment of the access road northwards will require the construction of approx. 510m^2 of concrete road.

A large mound of earth is located underneath Spur Hill Bridge, as shown in **Image 3-1**, with vegetation also growing at the eastern entrance to the bridge. On the western side of the bridge the mound of earth extends out from the bridge as shown in **Image 3-2**. The removal of this earth mound will also be necessary. This bridge is not currently accessible to the public due to the gated access to Chetwynd reservoir.

Image 3-1: Spur Hill Bridge from the East

Image 3-2: Spur Hill Bridge and Mound from the West

3.2.2.2 Spur Hill to Togher Road (L-2454)

After crossing under Spur Hill bridge, the proposed Greenway will continue eastwards along the route of the former railway line to Togher Road (L-2454) which it will meet at grade. This part of the route is currently largely overgrown with an existing dirt track. There is dense vegetation consisting mostly of briars and gorse on both sides of an existing track as shown in **Image 3-3**. There will therefore be a need to clear this scrub.

A viewing and picnic area will be provided north of the Greenway, just east of Spur Hill. This landscaped area will also include bicycle parking.

The horizontal alignment initially from Spur Hill heading east will have a prolonged curve until it meets Fernwood Crescent to the south; the remainder of the section up to Togher Road (L-2454) being straight.

Generally, 0.75 to 1.0m landscaped verges are to be provided which will tie into the existing shrubbery/vegetation and open space areas to the northwest of Fernwood Crescent. The Greenway will run to the north of Fernwood Crescent but at a lower level, with a tree lined boundary, which will maintain general views northwards from properties backing onto the Greenway. The Greenway will pass immediately adjacent to a public open space area of Fernwood Crescent from which access will be possible.

The terrain from Spur Hill to Togher Road (L-2454) is uneven and undulating, with localized slopes (see **Image 3-4)**. Reprofiling will be needed along a significant proportion of this section to achieve suitable levels.

There will be a requirement to excavate circa 640m^3 of earth for the construction of the track but 50m^3 of this material will be reused for fill material for reprofiling the embankments. This leaves a net volume of circa 590m^3 that to be transported off site.

Image 3-3: Heavy Vegetation Beside Track

Image 3-4: Undulation

3.2.2.3 Togher Road (L-2454) to Lehenaghmore Road (L-2455)

The Greenway will cross Togher Road (L-2454) via a new toucan crossing, which will have all necessary associated warning signage, lining and traffic lights.

From Togher Road (L-2454) to Lehenaghmore Road (L-2455) the proposed works will comprise the replacement and widening of an existing substandard paved walkway. The horizontal alignment of this section of the greenway will be predominantly straight.

The route will then cross beneath Lehenaghmore Road (L-2455) via an existing bridge. This bridge will not be altered but the stonework will be cleaned and repaired. A 3m pedestrian and cyclists' access path will be provided to the western side of Lehenaghmore Road (L-2455) on the southern side of the greenway. This access path is already approved and will be provided as part of the approved L-2455 Lehenaghmore Road Improvement Scheme by Cork City Council.

Generally, there will be 0.75m to 1.0m landscaped verges provided to integrate with existing shrubbery/ vegetation on the edges of the former railway corridor. Planting will be limited within the section of the route just east of Togher Road (L-2454) due to the presence of steep embankments to the north of the site and a boundary wall and fencing to the Westgate Business Park on the southern side of the proposed Greenway.

There will be a requirement to deconstruct a small section of existing wall / pillars and 1m high fencing to the south side of the entrance to the Westgate Business Park; the pillar will be reconstructed to the south of the new Greenway. An ESB pole is proposed to be relocated to the north of the proposed Greenway in this area.

A large mound of earth is located underneath the Lehenaghmore Road (L-2455) Bridge, as shown in **Image 3-5**, with 0.7m clearance between the top of the mound and the bottom of the bridge, which will require removal. On the eastern side of the bridge there is a 1.5m T.M. post outlining that the watermain is travelling under the bridge as shown in **Image 3-6**. This marker will be removed as part of the works.

There will be a requirement to excavate circa 650m^3 of earth for the construction of the track in this location, but 30m^3 of this material will be reused for fill material for reprofiling the embankments. This leaves a net volume of circa 620m^3 of material that will need to be transported off site.

Image 3-5: Earth Mound Beneath Bridge

Image 3-6: Watermain Route under the Bridge and Marker Post

3.2.2.4 Lehenaghmore Road (L-2455) to Forge Hill

From Lehenaghmore Road (L-2455), the Greenway will run eastwards to Forge Hill where it will pass under the railway bridge and road. A 3m pedestrian and cyclists' access path will be provided to the eastern side of Lehenaghmore Road (L-2455) on the southern side of the greenway. As with the access path on the western side of Lehenaghmore Road (L-2455), this is already approved and will be provided as part of the approved L-2455 Lehenaghmore Road Improvement Scheme by Cork City Council.

At the western half of this section of the route, the Greenway will replace a dirt track. At the eastern part from its location adjacent to Farm Lawn housing estate, the Greenway will be accommodated along the route of an existing paved service access road. The existing service access road provides gated / fenced access to Farm Lane. This access will remain gated.

The Forge Hill bridge will not be altered but the stonework will be cleaned and repaired. No pedestrian or cycle access to the Greenway is proposed to be provided directly from Forge Hill but access will be available via the new car park.

The horizontal alignment will be predominantly straight except for two slight curves in the alignment to the west of the Forge Hill railway bridge.

Generally, there will be 0.75 to 1.0m landscaped verges which will tie in with the existing trees and shrubbery on the periphery of the former West Cork Railway corridor.

There will be a requirement to excavate circa 650m^3 of earth for the construction of the track but circa 20m^3 of this material will be reused for fill material for reprofiling the embankments. This leaves a net volume of circa 630m^3 that will need to be transported off site.

Thick vegetation, consisting mainly of briars and gorse, currently restricts access to the Forge Hill Bridge and disconnects the existing corridor. The western side of the bridge (shown in **Image 3-7**) is accessible through the vegetation. However, the vegetation on the eastern side (**Image 3-8)** is much thicker and impenetrable. The vegetation will be removed to accommodate the greenway.

Image 3-7: Western Side – Limited Accessibility

Image 3-8: Eastern Side – No Accessibility

3.2.2.5 Forge Hill to Kinsale Road Roundabout

The section of the Greenway from Forge Hill to Kinsale Road roundabout will traverse a variety of landscapes. Travelling east from Forge Hill its passes firstly through the site of a former Traveller accommodation scheme, onward through an overgrown stretch of the former railway alignment, to the south of an existing Traveller accommodation and yard site, crossing the access road into Hazelwood Grove before running to the south of Hazelwood Grove residential properties and eventually meeting with the Kinsale Road roundabout.

Immediately to the east of Forge Hill Road is the site of the former Travellers residential units. While largely demolished and partially cleared, there are significant amounts of construction and demolition waste present on this site along with parts of former buildings still intact and significant areas of hardstand which will require demolition. There will be a need for site clearance of gorse and vegetation.

When cleared, this area will accommodate both the Greenway and a new 50-space car park on the northern side of the greenway. Vehicular access will be provided by upgrading an existing access to Forge Hill which previously served the Travellers accommodation scheme. Bicycle parking and storage facilities will be provided at this car park. Public realm improvements including hard and soft landscaping will also be provided at this location. Multiple accesses to the Greenway will be provided from paved areas through and adjacent to the bicycle parking and storage facilities.

From the car park, the Greenway will continue east in a predominantly straight horizontal alignment along the former railway corridor firstly through an overgrown area and then diverting to the south of the former corridor to accommodate an existing Traveller accommodation and yard site. To ensure the privacy and security of the residents of this site, post and panel fencing and associated landscaping are proposed. From here the Greenway will cross the access road to Hazelwood Grove and then the open space area to the south of No. 1 to No. 8 Hazelwood Grove. It will be necessary to acquire approx. 25m^2 of land from the rear garden of No. 4 Kinsale Road. A new boundary wall will be built along the new setback boundary. At the eastern end of Hazelwood Grove, the route continues alongside the boundary of the rear garden of the 'The Cottage', property. The horizontal alignment of the Greenway will be curved over the last circa 75m, in the vicinity of the 'The Cottage' on approach to Kinsale Road Roundabout. In this area the route is mainly accommodated within a public green space area facing the South Link slip road and roundabout. To

achieve appropriate vertical alignment however, and to allow safe tie-in to the pedestrian footpath at the Kinsale Road roundabout, it will be necessary to acquire approx. 200m^2 of land from the rear garden of 'The Cottage' property. A new boundary wall be built along the new setback boundary.

The proposed development terminates at the existing signalised pedestrian/cyclist crossing, which crosses the N40 westbound on-slip at the junction with the N27/R851 Frankfield Road.

Generally, there will be 0.75 to 1.0m landscaped verges and hedging along the Greenway between Forge Hill and Kinsale Road roundabout.

There will be a requirement to excavate circa 1,200m^3 of earth for the construction of the track, but 50m^3 of this material will be reused for fill material. This leaves a net volume of circa 1,150m^3 that will need to be transported off site from this section.

3.2.3 Links to the Greenway

3.2.3.1 Link from the N40 to Eagle Valley via Undeveloped Land

It is proposed to provide a 4m wide combined walkway/cycleway between the N40 (an existing walkway/ cycleway is located at the edge of the carriageway) and the spine road in Eagle Valley, via undeveloped lands including along a former residential access road. The overall length of same will be just c.305m. The horizontal alignment of the walkway/cycleway in this location will be curved over the first 50m but will be straight for the next 120m. Generally, there will be 0.75 to 1.0m landscaped verges along the walkway/cycleway in this location with wildflowers and ornamental planting and it will tie into the existing tree-lined setting.

The proposed walkway/cycleway then turns sharply to the east of the former residential access and crosses over a minor open drainage channel towards Eagle Valley via a simple single span bridge. There are associated landscaping works proposed immediately adjoining the walkway/cycleway so that it can be both physically accommodated at an appropriate gradient as well as visually absorbed into this area. Once within Eagle Valley, the route will cross an open space area, to the south of No. 271A Eagle Valley and connect to a proposed new cycle track on the opposite side of the spine road, via a raised table crossing. Appropriate levels of landscaped screening will be provided adjacent to the properties and gaps will be provided through existing fencing where necessary. Land take to accommodate this link will amount to 2,939m^2 associated with the land holding of the derelict Garrane house.

3.2.3.2 Link from the N40 to Eagle Valley via Garrane Darra

It is proposed to provide a 4m wide combined walkway/cycleway between the N40 (again from the existing walkway/cycleway at the edge of the carriageway) to the Garrane Darra Residential complex along the route of an existing gravel walkway at the edge of a disused football field. This section of new path will be approximately 158m in length. There will be a requirement to remove a small section of the existing fence in order to complete the link to the N40. There will be a requirement to reprofile the ground levels in the vicinity of the tie-in with the existing N40 walkway/cycleway to accommodate the new walkway/cycleway. Generally, there will be 0.75 to 1.0m landscaped verges with wildflowers and ornamental planting adjacent to the new link and it will tie into the existing tree-lined environment. Users of the link will proceed along the Garrane Darra road for a short distance before connecting via existing road and footpath to the new cycleway through Eagle Valley which is described below. No works are required within this section between the proposed link and the proposed new cycleway along the Eagle Valley spine road. Land take to facilitate the link will amount to 1,765m^2.

3.2.3.3 Cycleway along the Eagle Valley Spine Road

It is proposed to resurface a circa 451m length of the spine road within Eagle Valley and provide new traffic lane markings and signage to accommodate a new cycle track on the northern side of the road. The new road markings will indicate two traffic lanes of minimum 3.0m wide and a minimum 1.5m wide southbound segregated on-road cycle track. A raised table crossing will be provided at the southern extent of the cycle track to safely connect the on-road cycle track to the main Greenway from Eagle Valley to Kinsale Road Roundabout which commences at the existing green open space area on the opposite side of the road.

3.2.4 Car Park and Cycle Hub

As advised above, a new car park is proposed adjacent to the Greenway which will be accessed from Forge Hill via the upgraded access which served the site when in former use as Traveller accommodation. The car park site will avail of a relatively wide corridor of the former railway line in this area and will bring a new and sustainable use to the disused site adjacent.

In terms of accessibility, the proposed car park will be located circa 500m south of the N40 South Ring Road and circa 550m north of the N27 towards Cork Airport and Kinsale and is therefore accessible from the wider catchment.

The proposed car park will include 50 No. car parking spaces and the provision of the bicycle storage facilities and bicycle parking will facilitate its use as a cycle hub and focal point. Disabled parking spaces will be provided in line with relevant standards.

The car park will be circa 2,300m^2 in area and will comprise of a 40mm paved surface course, on a 90mm binder course approx. which will be laid on a minimum 150mm sub-base. The construction of the new car park will require circa 346m^2 of unbound stone, 207m^3 of base/binder course and 92m^3 of surface course.

3.2.5 Drainage

The drainage proposal for the Greenway is to generally use an over the edge drainage system, where the levels provided will facilitate all surface water running off into the adjacent verges.

There will be a gully and carrier pipe drainage system installed at the new car park. Surface water run-off from the car park will pass through a bypass interceptor before discharge to the existing surface water network at Forge Hill.

No new culverts or bridge works are required as part of the proposed Greenway proper; a minor channel connected to field drainage will be crossed by way of simple single span bridge to facilitate one of the links between the N40 and the Greenway.

3.2.6 Lighting

New public lighting will be provided along the full length of the Greenway and the proposed new links to the N40 to enhance the quality of the route from a security perspective. The lighting will comprise of 5m columns which will provide amenity lighting for pedestrians and cyclists accessing the route.

The new lantern fittings will adopt an advanced intelligent light control system which will have automatic dimming and sensor control which will allow increased illumination when pedestrian and cyclists go past but they will dim accordingly when there are no users on the Greenway.

3.2.7 Landscaping and Biodiversity Enhancement

A significant part of the works will be the landscaping to enhance verges and open spaces along the scheme to provide enhanced recreational, community and biodiversity value. Specific landscaping drawings are provided which indicate the proposals for verges, and other areas such as the car park and open spaces. The landscaping proposed seeks to achieve an improved public realm, while maintaining and protecting existing biodiversity features. The proposals generally seek to minimise removal of existing vegetation along the route and to provide new planting to tie-in with the existing surrounding vegetation. New planting is to include native species of shrub, and pollinator-friendly seed mixes.

There are several areas along the route where more extensive landscaping is appropriate to create enhanced amenity areas and / or as mitigation for adjoining property owners or residents and these have been identified in the section-by-section analysis above and on the landscaping drawings. The main areas for landscaping enhancements are in short, the open space area at Eagle Valley, the wider areas either side of Spur Hill (including a proposed viewing and picnic area), the car park / cycle hub, and screen hedging in several areas at the eastern end of the scheme to ensure privacy to residential properties adjacent.

3.2.8 Built Heritage Aspects

The proposed Greenway crosses under 3 no. former railway bridges, all of which are included on the National Inventory of Architectural Heritage (NIAH). A detailed description of the features is provided within a Conservation Report for the proposed Greenway, prepared by Jack Coughlan and Associates Architects, which also contains recommendations for the works necessary to be carried out at each bridge. Generally, stonework will be cleaned and repointed, and otherwise repaired, moved or replaced as necessary at each of these features in line with the recommendations of the Conservation Report and the method statement provided therein. Mounds of earth will also be removed from underneath former railway bridges where necessary, as outlined earlier in this report.

One of the links proposed from the N40 towards the Greenway utilises a former access road to a derelict dwelling, Garrane. This structure appears on historic mapping but is not listed on the NIAH nor is it designated as a Protected Structure under the current Cork City Development Plan. The route of the walkway/cycleway skirts the edge of the property to avail of the alignment of the former entrance road and is regardless at a remove from the building.

The route also passes through a zone of archaeological potential for St. Bartholomew's Holy Well, Doughcloyne, near Spur Hill. There were no traces of the well in evidence at field inspection or on review of recent aerial photography and an Archaeological Impact Assessment (AIA) prepared by John Cronin and Associates concludes in agreement with prior considerations, that it is likely that the feature was destroyed during the construction of the railway line in the mid-19th century. Recommendations are in place however for supervision of clearance works to confirm that no traces of the site exist among the vegetation in overgrown areas of the former line and its environs.

The recommendations of the AIA also include that consideration be given to the erection of an information board within this area of the proposed greenway commemorating the former location of St. Bartholomew's Well, to help ensure that a folk memory of the site continues, and it is proposed that this will be provided as part of the proposed development.

3.2.9 Signage

Signage and markings will be provided along the route of the proposed Greenway and will incorporate guidance on Greenway usage etiquette, wayfinding information, information on the biodiversity and built heritage of the area and anti-litter notices. General signage identifying the walkways/cycleways will be provided for each of the two links from the N40.

3.2.10 Enabling Works

There will be a requirement to clear circa 22,000m^2 of vegetation (shrubbery and gorse) across the extent of the proposed development.

Other enabling works will include demolition works, realignment of boundary walls, site investigation works where necessary, the relocation of 2 no. electricity poles and wires and the removal and treatment of isolated areas of Japanese knotweed and other invasive species in line with an Invasive Species Management Plan.

3.2.10.1 Demolition

Demolition works are required as set out in the section-by-section description. The main area of demolition relates to the former Travellers' accommodation site, which retains significant amounts of construction and demolition waste, parts of former buildings still intact, and significant areas of hardstand to be broken up / removed as necessary. There will be removal of circa 1,360m^2 of hard standing area and walls associated with the former accommodation units.

There is a need to deconstruct circa 27m^2 of existing walls / pillars and 1m high fencing to the south side of the entrance to the Westgate Business Park, and within the Chetwynd Reservoir site and to the west of Spur Hill circa 510m^2 of the southern side of the existing concrete road will be broken up and reused as part of the road realignment or removed off site. Where necessary to facilitate linkage to the existing cycle and pedestrian facilities adjacent to the N40, fencing will be removed to provide a suitable width gap.

All waste required to be removed off-site will be taken to an appropriately licensed facility.

3.2.10.2 Earthworks

Earthworks, including excavations, reuse of material on site and removal of material off site, will be required as outlined above. It is estimated that total excavated material will be approx. 3,600m^3, and that approx. 201m^3 of this material will be reused as part of the proposed works. Therefore, it is estimated that approx. 3,380m^3 of excavated material will be required to be removed off site.

Additional earthworks will be required to remove the three existing earth mounds that impede or block movement below the bridges. These mounds are likely to comprise of material that was imported to the site in the past. There will also be some modest earthworks required for landscaping.

Excavated soil will be stockpiled where it can be used for landscaping or alternatively it will be removed off-site to an authorised facility.

3.2.11 Construction Management

3.2.11.1 Construction Duration and Key Tasks

It is estimated that the construction of the Greenway and links will take approximately 10 months and will likely be carried out by two crews working simultaneously. Standard construction hours (Monday to Friday 08:00 to 19:00 and Saturdays 08:00 to 14:00) are to apply with deviation to occur only in exceptional circumstances with prior written approval of the local authority.

Detail of the proposed sequencing is included in the project description within the Report to Inform EIA Screening. The construction programme will generally commence with clearance and demolition and ground works, before paving and lighting works in the prepared areas are carried out. Works to the former railway bridges along the route, the construction of the car park and cycle hub at Forge Hill and works associated with seating areas and hard landscaping along the route will be carried out later in the programme, with profiling and landscaping of open spaces and focal points likely to be carried out at the end. It should be noted that the timing of planting will depend on seasonal constraints.

3.2.11.2 Programming and Communication

To reduce impacts on local communities and residents adjacent to the proposed development, it is proposed that the Contractor will be required to:

- Liaise with the management of other construction projects and local authorities to co-ordinate deliveries.
- Schedule deliveries in such a way that construction activities and delivery activities do not run concurrently e.g., avoiding the laying of surfacing on the same day as material deliveries to minimise overlap of construction delivery vehicles and consequent delays to traffic.
- Schedule deliveries to and from the proposed construction compounds such that traffic volumes on the surrounding road network are kept to a minimum.
- Develop the construction programme in conjunction with CCC, specifically considering the local authority's own road works schedule so as that where possible any such road works are carried out following the presence of construction traffic for the proposed development.
- Implement specific construction moratoria (for example, certain busy periods) as indicated by CCC.
- Interact with members of the local community to ensure that deliveries do not conflict with sensitive events such as funerals, and that works at Eagle Valley minimise disruption to local residents.
- Adopt best practice construction site management measures. In this regard the Contractor will be required to adhere to the requirements of the best practice guidelines of CIRIA[3] or comparable.

3 Control of Water Pollution from Linear Construction Projects. CIRIA C648. (CIRIA, 2006)

3.2.11.3 Construction Compound

A construction compound will be located to the east of Forge Hill within the proposed car park area. This will serve as the main compound for all construction works. Welfare facilities will be provided within the compound for construction staff.

Waste where it arises at the compound will be source segregated to accommodate re-use and recycling. Sanitary waste and general construction waste will be managed in accordance with the Waste Management Act 1996 (as amended).

3.2.11.4 Access and Traffic Management

Full access to all properties will be in place during works. A short-term traffic management plan on the Togher Road (L-2454) and Forge Hill will operate involving single-lane traffic management but not road closures. A stop-go system will be employed during the resurfacing and relining works associated with the proposed cycleway along the main spine road in Eagle Valley.

Restricted access to the construction compounds and along the corridor will be provided from Chetwynd Reservoir private road, and from the following public roads:

- Eagle Valley,
- the east and west of Togher Road (L-2454) at Westgate Business Park,
- the east and west of Forge Hill, and
- Hazelwood Grove.

3.2.12 Third Party Land Take

It will be necessary to acquire approx. 25m^2 of land from the rear garden of No. 4 Kinsale Road. A new boundary wall will be built along the new setback boundary. At the eastern end of Hazelwood Grove, it will be necessary to acquire circa 200m^2 of land from the rear garden of 'The Cottage' property. A new boundary wall be built along the new setback boundary.

A small area of land is required at the Westgate Business Park to accommodate the necessary revisions to the entrance wall / piers as noted above.

Finally, with respect to the Greenway itself, land will need to be acquired (approx. 4,000sqm) to the east of Spur Hill where the route of the former railway line has passed into private ownership. In this area the Greenway travels through private lands with agricultural use on both sides.

Two areas of private land will be subject to land take to accommodate the links from the N40. These equate to 2,939m^2 to the west and southwest of Garrane Darra on lands associated with a derelict dwelling (Garrane), and 1,765m^2 to the east of Garrane Darra where the route of the eastern link is sited on the former soccer grounds.

3.2.13 Usage

The primary purpose of the Greenway is to support active travel and serve a commuter function for cyclists and pedestrians. It will, however, also act as a recreational facility. It will be accessible from surrounding areas at Eagle Valley, Spur Hill, Fernwood Crescent, Togher Road (L-2454), Lehenaghmore Road (L-2455), Hazelwood Grove and Kinsale Road roundabout. The proposed links from the N40 will connect to the Greenway via Eagle Valley. Those wishing to travel to the facility by car and then use it for walking or cycling can access the proposed facility at Forge Hill from the proposed car park. Secure bicycle storage facilities and bicycle stands in that location will facilitate transfer between cars, bicycles and walking for both recreation and commuting purposes. Infrastructure will also be provided to link to the Greenway from the N40 including a connection via Garrane Darra.

The Greenway itself will generally be accessible by cyclists and pedestrians only. Demountable bollards will be provided at appropriate locations to prohibit vehicles accessing the route.

Based on benchmarking against survey information at the Curraheen River/Twopot Greenway and the fact that that the Cork City to Viaduct Greenway will serve Eagle Valley and other residential estates, it is estimated that approx. 520 to 550 users per day could avail of the facility when it is constructed. Both the Cork Metropolitan Area Transport Strategy 2040 and the Cork Network Cycle Plan identify an objective to expand on the Cork City to Viaduct Greenway – Phase I to develop a regional Greenway that serves Kinsale/West Cork and enhance iconic former railway features. This has the potential to generate significant tourist and recreational trips in line with existing successful National and Regional Greenways that are built along former railway corridors.

3.2.14 Management and Maintenance

Litter bins will be provided along the route of the Greenway and within the car park / cycle hub and will be managed by the local authority at operational stage.

The proposed bollards will be temporarily moved to allow access for maintenance vehicles as necessary and only these maintenance vehicles will be allowed to access the greenway. This will be required on a regular basis for waste collection (bin collections by light vehicles undertaken by small teams) and landscaping (regular seasonal requirements).

Access will also be provided as required for repair or upgrade works. Bridge inspections will also be undertaken at set periods post construction, for the Spur Hill, Lehenaghmore Road (L-2455) and Forge Hill railway bridges and access will be provided to facilitate same.

4 STRATEGIC POLICY AND STATUTORY PLANNING CONTEXT

4.1 National Policy and Guidelines

4.1.1 National Planning Framework – Project Ireland 2040

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of the country to the year 2040. The NPF includes ten strategic outcomes for the nation over the plan period. National Strategic Outcomes 1, 4 and 8 relate to 'Compact Urban Growth', 'Sustainable Mobility' and 'Transition to a Low Carbon and Climate Resilient Society' respectively. Criteria to achieve those outcomes include amongst others, a transition to more sustainable travel modes such as walking and cycling, and the development of a comprehensive network of safe cycling routes in Metropolitan areas to address travel needs.

National Strategic Outcome 7 is of particular relevance to the proposed development. This sets out the need for 'Enhanced Amenity and Heritage' throughout the country. This enhancement is noted as including a number of different elements, including Greenways. The objective seeks to *"ensure that our cities, towns and villages are attractive and can offer a good quality of life. It will require investment in well-designed public realm, which includes public spaces, parks and streets, as well as recreational infrastructure. It also includes amenities in rural areas, such greenways and blueways. This is linked to and must integrate with our built, cultural and natural heritage, which has intrinsic value in defining the character of urban and rural areas and adding to their attractiveness and sense of place."* Criteria to achieve same include "a *major focus on improving walking and cycling routes, including continuous greenway networks*", and investing in and enabling "*access to recreational facilities, including trails networks, designed and delivered with a strong emphasis on conservation*".

The NPF notes that countries with extensive cycle infrastructure report higher levels of cycling and lower rates of obesity. Healthy places in turn create economic value by appealing to a skilled workforce and innovative companies. The NPF also indicates that Ireland's future homes will be located in places that can support sustainable development '*places which support growth, innovation and the efficient provision of infrastructure, are accessible to a range of local services, can encourage the use of public transport, walking and cycling and help tackle climate change'*.

The NPF also includes National Policy Objectives (NPOs). NPO 22 encourages cycle networks through the facilitation of a National Greenways / Blueways Strategy which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level.

NPO 27 facilitates healthy communities through the provision of alternative means of transport to the car and seeks to: *"Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages."*

Other Objectives of note include NPO 17 to *"Enhance, integrate and protect the special physical, social, economic and cultural value of built heritage assets through appropriate and sensitive use now and for future generations"*, and NPO 60 aiming to "*Conserve and enhance the rich qualities of natural and cultural heritage of Ireland in a manner appropriate to their significance*". NPO 64 relates to the improvement of air quality, favouring integrated land use and spatial planning that supports public transport, walking and cycling. NPO 75 seeks to "*Ensure that all plans, projects and activities requiring consent arising from the National Planning Framework are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate*."

4.1.2 Smarter Travel: A Sustainable Transport Future 2009-2020

Smarter Travel is the transport policy for Ireland that sets out how the vision of a sustainable travel and transport system can be achieved. A key action is for more widely available alternatives to the car, mainly via a radically improved public transport service and through investment in cycling and walking. It outlines that pedestrian and cycle facilities are most successful where they form a coherent network, place an emphasis on safety, directly serve the main areas where people wish to travel, provide priority over vehicular traffic at junctions, are free from obstructions and have adequate public lighting. The policy document notes *'the*

necessity for development and transport to be planned in an integrated fashion, with public transport infrastructure being provided for either in advance of, or in conjunction with, the occupation/use of the development'. Furthermore, cycling and walking are considered pivotal to achieving some of the goals in national health policies to promote physical activity.

4.1.3 Strategy for Future Development of National and Regional Greenways, 2018

The objective of the Strategy for Future Development of National and Regional Greenways (the Greenway Strategy) is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations and constructed to an appropriate standard to deliver a quality experience for all Greenway users. Although the Cork City to Viaduct Greenway, Phase I is a localised greenway in an urban area and not at the same scale as a regional greenway traversing rural areas, it is envisaged that in time it will form part of a longer regional scale route. There are a number of objectives set out within the Strategy, which comprise guidance for different scales and locations of Greenway. Those of relevance when the longer-term vision is considered are objectives for the provision of Greenways that:

- provide a substantially segregated off-road experience linking places of interest, recreation and leisure in areas with scenery of different types and things to see and do;
- are of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals and contribute to a healthier society through increased physical activity;
- provide opportunities for the development of local businesses and economies; and
- are developed with all relevant stakeholders in line with an agreed code of practice.

The Strategy states that Greenways should meet satisfactory standards of width, gradient and surface condition to ensure that they are both user-friendly and low risk for users of all abilities. Further, the strategy identifies that the Greenways should be more than a transport route but an experience in themselves.

The Strategy also includes content regarding the protection and enhancement of biodiversity and the potential for increasing public awareness around biodiversity. It is noted that generally, ecological assessment will be necessary for the planning and design of greenway routes.

4.1.4 Transport Infrastructure Ireland Publications

Transport Infrastructure Ireland (TII) publication **Rural Cycleway Design (Offline) – DN-GEO-03047** provides the design standards and factors that need to be considered when developing cycleways. The Greenways Strategy states that Greenway projects need to comply the design standards stated in this TII documentation. TII also publish the **Project Appraisal Guidelines for National Roads Unit 13.0 – Appraisal of Active Modes (PE-PAG-02036)** which advises that journey time benefits will occur if less delay arises, or the route is shorter for users of active travel modes.

4.1.5 National Cycle Policy Framework 2009-2020

In April 2009, Ireland's first National Cycle Policy Framework (NCPF) was issued; the vision of the policy is that "*All cities, towns, villages and rural areas will be bicycle friendly. Cycling will be a normal way to get about, especially for short trips*".

In terms of infrastructure, routes to be taken by cyclists should be safe, direct, coherent, attractive and comfortable. Interventions include the maintenance of surfaces used by cyclists to a high standard; and that routes should be well signposted and well lit, with secure cycle parking at important destinations. Integration with public transport is also identified as an intervention necessary to encourage cycling as a mode of transport.

4.2 Regional Planning Policy

4.2.1 Regional Spatial and Economic Strategy – Southern Region

The Regional Spatial and Economic Strategy (RSES) for the Southern Region was adopted in January 2020 and establishes a broad framework for the way in which society, environment, economy and the use of land should evolve. It includes Metropolitan Area Strategic Plans (MASPs) for Cork and other key centres, and a regional strategy for key towns, towns, villages and rural areas.

A key strand of the overall strategy for the Southern Region is to achieve sustainable mobility by transforming transport systems into well-functioning sustainable integrated systems accommodating public transport, walking, cycling and electric vehicles. Transport policies and objectives for the Southern Region have a strong focus on safeguarding disused railway line alignments for possible future use, for example conversion to Greenways.

The RSES notes that active walking and cycle infrastructure will support active health initiatives and healthy communities, encourage transition to sustainable modes of travel, promote sustainable mobility and significantly assist our transition to a lower carbon society. The RSES includes a commitment to the delivery of cycle routes, Greenway and Blueway corridor projects (subject to appropriate site selection and environmental assessment processes), having regard to the Strategy for the Future Development of National and Regional Greenways July 2018. The RSES supports the development of Greenways, Blueways and Peatways including initiatives to extend existing routes and links to regional and national networks, ports and other transport hubs.

Regional Policy Objectives (RPOs) 124 and 125 of the RSES relate to green infrastructure and green infrastructure corridors. RPO 124d requires that *"Any future development of greenways, blueways, peatways, cycleways or walkways will include an assessment by the relevant authorities of any impacts that may arise from increased visitor pressures, in particular, on sensitive European sites and the design of the network will consider the provision of protective measures on sites sensitive to disturbance / visitor pressure."*

RPO 125 notes that transport infrastructure can act as green corridors and biodiversity enhancements should be planned by infrastructure providers.

Greenways in the Region are to be linked up to a network to improve connectivity for walking routes and commuter cyclists in addition to recreational amenity functions

The Cork Metropolitan Area Strategic Plan (MASP), which forms part of the RSES, sets out Key Transport Objectives in the Cork MASP Policy Objective 8. These relate to a wide variety of traffic and transportation aspects, including walking and cycling which are of direct relevance to the current Scheme:

"h. Walking: Make Cork the most walkable city in Ireland, implement and further develop upon the Cork City Walking Strategy 2013-2018 and strengthen the role of walking through improved walkability, with a particular focus on new development areas, access to services at the local level and improved pedestrian accessibility to and within the City Centre area, Town/District Centres and Neighbourhood Centres. Seek and support greenways for walking in addition to cycling.

i. Cycling: Implement and further develop upon the Cork Metropolitan Area Cycle Network Plan 2017, invest in infrastructure to support the integration of the cycle networks throughout the Cork Metropolitan Area and region, improve and develop primary, secondary, greenway … and feeder cycle networks and support cycling through provision of a high proportion of segregated cycleways to provide a safe infrastructure for all".

MASP Policy Objective 17 relates to Metropolitan Open Space, Recreation and Greenbelt Strategy. Notable provisions of this objective are:

"to achieve a healthy, green and connected metropolitan area through the preparation of a Metropolitan Open Space, Recreation and Greenbelt Strategy…. This Strategy may include, inter alia:

……

b. The sustainable development of green infrastructure as an interconnected series of green spaces including parks, natural green spaces and ecosystems, greenways and blueways.

c. The implementation of Greenway initiatives that provide important economic, leisure and tourism, health,
active and sustainable travel benefits to the metropolitan area … subject to the outcome of environmental assessments and the planning process..."

4.2.2 Cork Metropolitan Area Transport Strategy

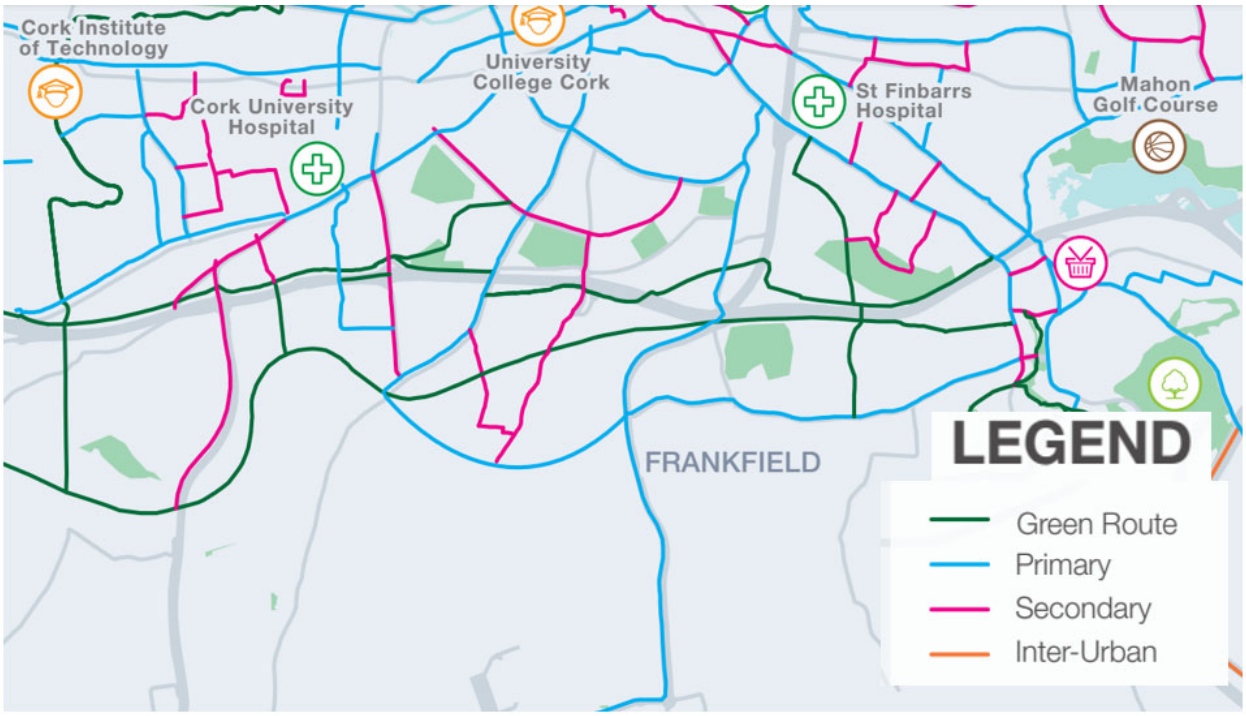
The Cork Metropolitan Area Transport Strategy 2040 (CMATS) has been developed by the National Transport Authority (NTA) in collaboration with Transport Infrastructure Ireland (TII), Cork City Council and Cork County Council. CMATS sets out a framework for planning and delivery of transport infrastructure and services to support the Cork Metropolitan Area's development in the period up to 2040.

In examining the cycle network serving the metropolitan area, the CMATS notes that while improving, the network remains disjointed and of variable quality, particularly outside of the city centre where there is a lack of quality infrastructure and segregated routes from roads with traffic speeds of over 30kph. The success of improvement works carried out in recent years is noted; the increased usage of the network and calls for the extension of the bicycle scheme in the city are noted as demonstrating a significant latent demand for cycling as either a primary transport mode or as part of a linked trip with public transport.

With respect to the pedestrian network, the inconsistency of the quality of same outside of the city centre is also noted in CMATS. Objectives set out for walking include that the pedestrian network is upgraded in tandem with cycle facilities to minimise conflict in shared spaces such as greenways. The permeability from the primary pedestrian network to existing and proposed amenity routes is also to be increased.

CMATS identifies the full extent of the proposed Cork City to Viaduct Greenway, Phase I as part of Cork's Greenway Network, i.e., a 'Green Route', and also as an amenity route for walkers. It also notes the need to provide feeder routes to the Greenways. Key indicative areas for greenways include an Old Bandon/Kinsale Railway Greenway incorporating the Chetwynd Viaduct, with the route as currently proposed extending westwards from Chetwynd Reservoir and eastwards from Kinsale Road Roundabout.

Figure 4-1: Cork City Cork Metropolitan Area Transport Strategy 2040 (Cork City Council and Cork County Council, TII and NTA)



Source: Cork City Cork Metropolitan Area Transport Strategy 2040 (Cork City Council and Cork County Council, TII and NTA)

4.3 Statutory Planning Policy

4.3.1 Cork City Development Plan 2022-2028

The Cork City Development Plan 2022-2028 (the CDP) was adopted in June 2022 and came into effect on 8th August 2022. The key relevant provisions of the CDP to the proposed development are set out hereunder.

The CDP contains the following vision for Cork City:

> *"For Cork City to take its place as a world class city, driving local and regional growth, embracing diversity and inclusiveness and growing as a resilient, healthy, age-friendly and sustainable compact city with placemaking, communities and quality of life at its heart."*

The principles underlying this vision include compact growth; a city of neighbourhoods and communities based on the 15-minute city concept; sustainable and active travel; enhanced built and natural heritage; a strong and diverse economy; a resilient city; a healthy, inclusive and diverse city; a connected city; and a city of learning and culture. The vision is supported by objectives including those around facilitating sustainable transport modes such as walking and cycling and carbon reduction.

Chapter 3 of the CDP discusses quality of life, elements of which include health, physical safety, and leisure and social interactions. The importance of having recreational facilities available at a neighbourhood level is acknowledged, noting that pedestrian and cycle infrastructure can have quality of life, health, community integration and safety benefits. The CDP states that recreational facilities provide opportunities for social interaction leading to more inclusive communities, with outdoor facilities having potential to support biodiversity and climate change benefits. Objective 3.29 relates to recreation and amenity facilities at a neighbourhood scale.

4.3.1.1 Active Travel Policy

Chapter 4 of the CDP contains policy in respect of Active Travel. The creation of an attractive, accessible and safe pedestrian environment regardless of age or ability is one of the key aims of Cork City Council during the lifetime of this plan. The chapter states as follows:

> *"It shall be an ambition of this plan to increase the modal share for cycling within the City administrative area to 10% to be achieved through a consequent reduction in the number of car journeys."*

Table 4.3 in the plan outlines proposed walking and cycling improvements one of which is the L-2455 Lehenaghmore Road Improvement Scheme. The description of this scheme includes for '*a new pedestrian cycling bridge which will link to the planned Greenway on the former Cork-Bandon railway line'*.

Figure 4.3 of the Plan outlines an indicative 5-year plan for cycling network improvements, and it includes for the development of the Cork City to Viaduct Greenway, Phase I.

Objective 4.4 is '*to actively promote walking and cycling as efficient, healthy, and environmentally friendly modes of transport by securing the development of a network of direct, comfortable, convenient, and safe cycle routes and footpaths across the city'*.

4.3.1.2 Land Use Zoning

The CDP also contains zoning objectives for lands within the vicinity of the proposed development.

The proposed development is predominantly within the 'Built-Up Area' of the city which is subject of land use zoning objectives. **Figures 4-2** to **4-4** present land use zoning maps 15, 08 and 07 respectively of the CDP showing the areas of the city through which the proposed Greenway passes.

The section of the Greenway within the Chetwynd Reservoir site is zoned 'City Hinterland'. The primary objective for such areas is "*to preserve the character of the City Hinterland generally for use as agriculture, rural amenity, open space, recreational uses, green and blue infrastructure and to protect and enhance biodiversity*". Therefore, proposed greenway uses are compatible with this zoning.

The zoning objectives in the vicinity of the proposed Greenway and links generally reflect the existing land uses along the route with existing residential uses generally zoned objective ZO 01 Sustainable Residential Neighbourhoods, for which the objective is "*to protect and provide for residential uses and amenities, local services and community, institutional, educational and civic uses*", and existing industrial / commercial uses generally zoned objective ZO 09 Light Industry and Related Uses, for which the objective is to "*to provide for new residential development in tandem with the provision of the necessary social and physical infrastructure*." The proposed car park / cycle hub is zoned for the latter.

There are some specific zoning objectives attached to land parcels adjoining the Greenway route which indicate likely future uses different to their current uses. These are:

- Field on northern side of Greenway to east of Spur Hill adjacent to Fernwood housing estate: This is currently in agricultural use but is zoned objective ZO 02 New Residential Neighbourhoods – *To provide for new residential development in tandem with the provision of the necessary social and physical infrastructure.*
- Field between Eagle Valley and the former access road to 'Garrane': Currently disused but zoned also for ZO 02 New Residential Neighbourhoods as per above.
- Undeveloped land on southern side of Greenway to west of Togher Road (L-2454): This currently vacant land is zoned objective ZO 12 Education – to provide for schools and educational facilities and related development.
- An area west of Fernwood is zoned ZO 15 Public Open Space, which includes some of the grassed area within the development which was formerly zoned for sustainable residential neighbourhoods and adjacent lands including a wooded area. The objective seeks *to protect, retain and provide for passive and active recreational uses, open space, green networks, natural areas and amenity facilities.*
- The area forming part of the former Richmond AFC soccer pitch is also zoned ZO 15 Public Open Space.

An Objective termed 'Walkways and Cycleways' is shown as a black and white line along the proposed Greenway route from Spur Hill to Forge Hill, which is also visible in in **Figures 4-2** to **4-4**.

With respect to links proposed, the Neighbourhood and Local Centre zoning objective at the Dunnes Stores premises at the Bandon Road roundabout is notable.

Figure 4-2: Land Zoning Maps for Lands in Vicinity of Proposed Greenway

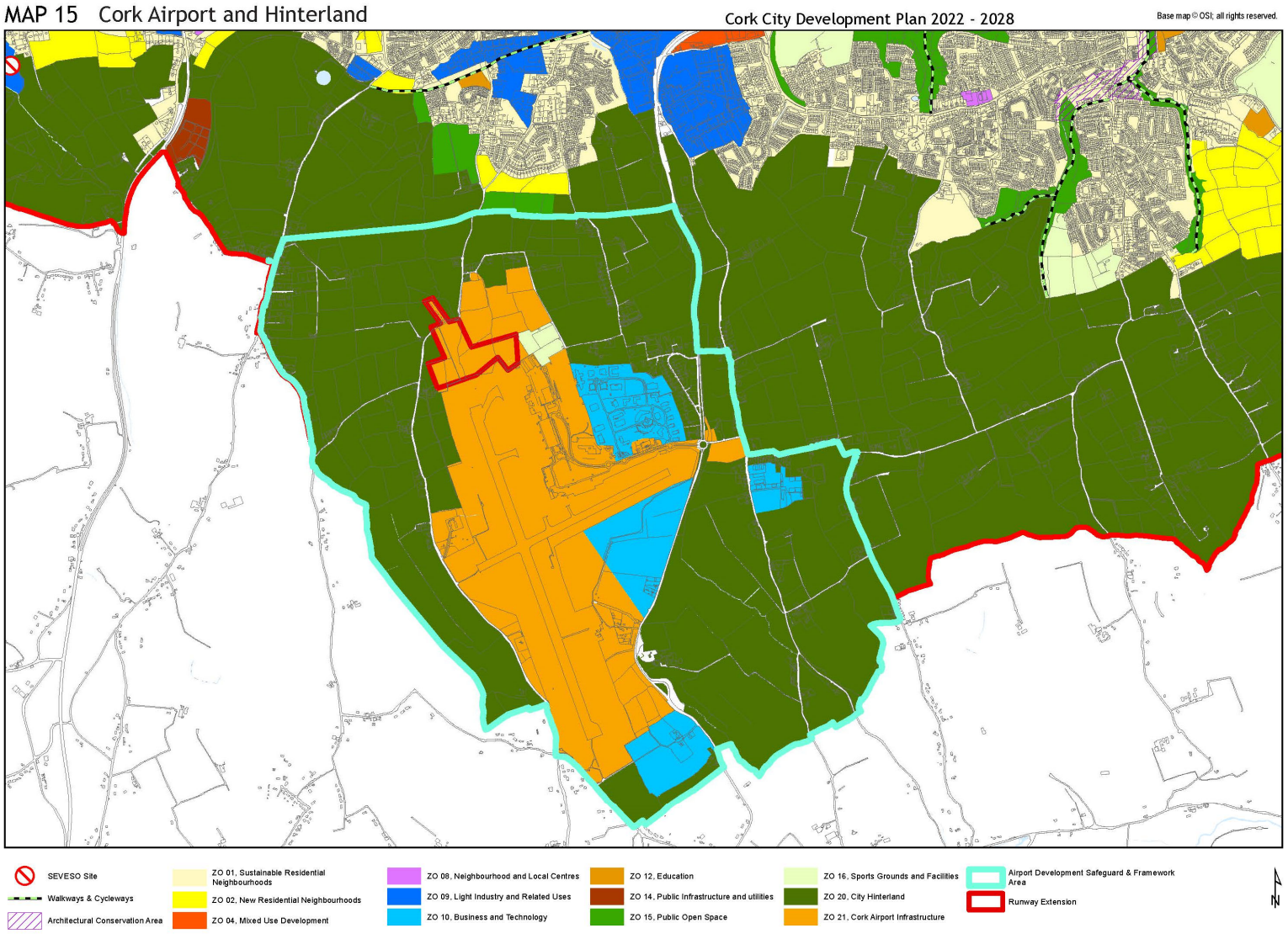


Figure 4-3: Land Zoning Maps for Lands in Vicinity of Proposed Greenway

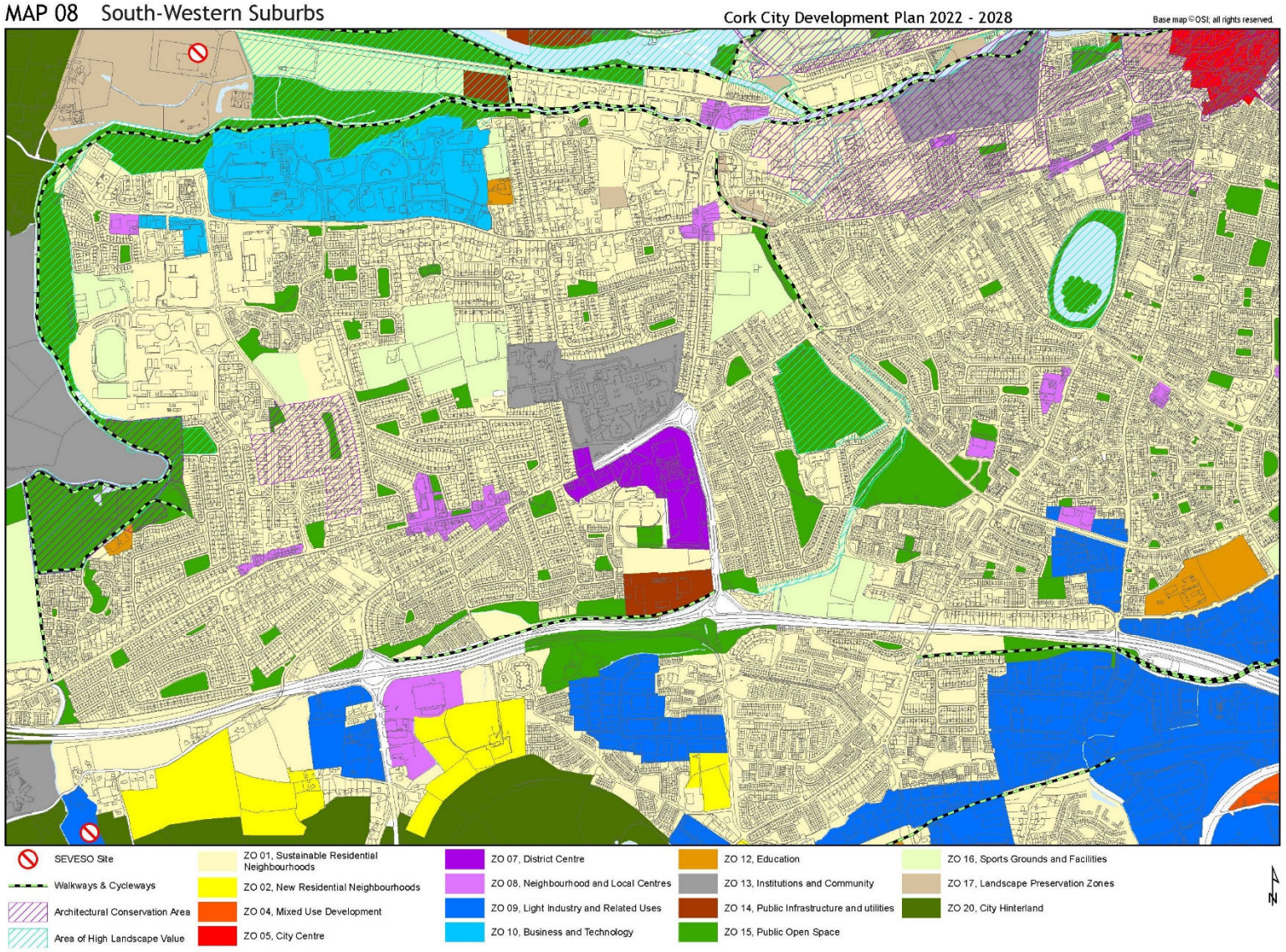
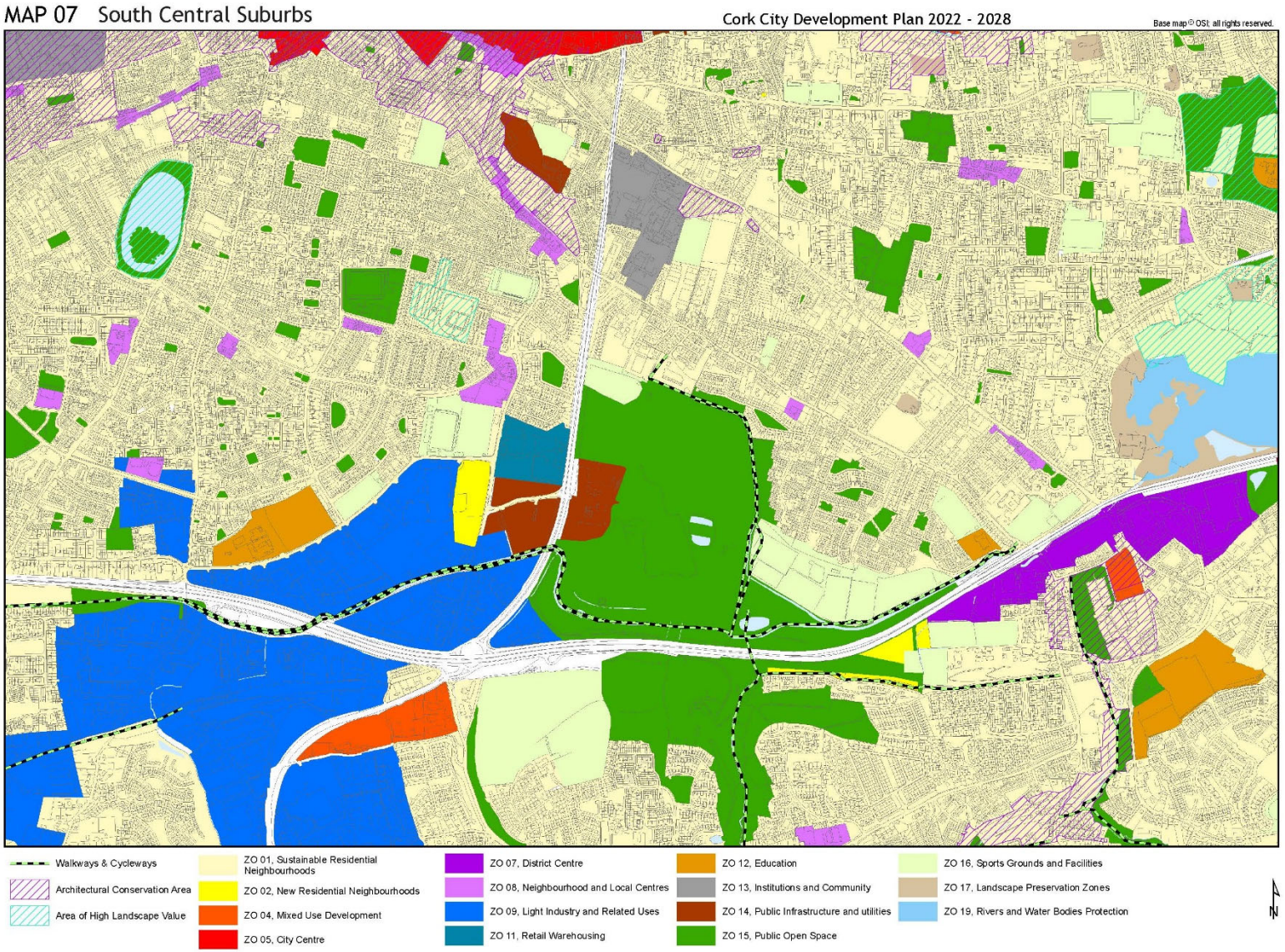


Figure 4-4: Land Zoning Maps for Lands in Vicinity of Proposed Greenway



4.3.1.3 Key Development Areas

The CDP identifies a number of key development areas, including the mixed industrial / commercial area centred on the Tramore Road and Kinsale Road. This area is identified as having regeneration potential for higher density development, linked to the development of high-quality public transport. The area currently includes light industry, trade showrooms, retail and retail warehouses with sports facilities and residential neighbourhoods nearby. This area is considered a longer-term strategic growth area with capacity to contribute to compact growth in Cork City to 2040. It is likely that a Framework Plan will be prepared in future to cover two key land banks with one of these areas including lands from the junction of the N27 and Forge Hill / R851 to the Kinsale Road Roundabout on both sides of the N27 and the other encompassing the greater Kinsale Road area from the Kinsale Road Roundabout north to the junction with the Tramore Road.

4.3.1.4 Landscape Policy

Some of the lands within the city hinterland zoned area which the route passes through are strategic and prominent lands at the urban edge. The proposed Greenway does not traverse through any of the landscape preservation zones identified in the CDP, however.

A View Management Framework is provided within the CDP. There are no landmark buildings, strategic viewing locations, strategic linear views or linear views of special amenity value located along or within the vicinity of the route of the Greenway.

The nearest scenic route identified in the CDP is HVP7: Road between Frankfield and Ballygarvan Townland. This route commences at the N27 Kinsale Road close to the roundabout.

4.3.1.5 Green and Blue Infrastructure and Biodiversity

Chapter 5 of the CDP focuses on climate change and the environment and sets out objectives including Objective 5.1 to create a more climate resilient, low carbon and environmentally sustainable city, noting that measures to achieve same can offer other social, economic and biodiversity benefits. Green and blue infrastructure is recognised within Objective 5.24 as having a strategic role in facilitating a more climate resilient city. Chapter 6 Green and Blue Infrastructure, Open Space and Biodiversity then expands on the above, and supports a network of green and blue spaces and corridors, which is identified as "*essential to the quality of life and wellbeing of residents, businesses and communities, helping to create and sustain places where people want to live and work".*

Strategic biodiversity goals are set out, which include protecting and enhancing natural heritage, create a green and blue infrastructure network creating ecological corridors, protect rivers and water courses and promote best practice in managing, controlling and eradicating invasive alien species.

Objective 6.1 is as follows:

> *"To manage, protect and enhance the Green and Blue Infrastructure assets of Cork City in line with the Cork City Green and Blue Infrastructure Strategy set out in the Development Plan, and to support the actions, opportunities and projects identified in the Cork City Green and Blue Infrastructure Study 2021."*

Objective 6.2 is to ensure that such networks and spaces are safe and accessible for all (including seating, appropriate path widths, gradients and surfacing, and signage). Further, severance or impediments to such routes are to be avoided or overcome with appropriately designed schemes.

4.3.1.6 Built Heritage

Chapter 8 focuses on Heritage. Objective 8.17 aims to ensure the conservation of the city's built heritage and ensure that it contributes fully to the social and economic life of the city. Objective 8.28 states that the City Council will ensure the protection of important elements of the built heritage and their settings as appropriate.

4.3.1.7 Flood Risk

Flood risk is covered by Chapter 9 which advises that development shall comply with the Planning System and Flood Risk Management – Guidelines for Planning Authorities.

4.3.1.8 Development Management Standards

Development management guidelines within the CDP state that links and greenways should be designed to avoid habitat loss and disturbance due to increased movement of people, and that specification of new green routes should be appropriate to the location, the type of users and the level of anticipated use. Entrances to the green and blue network should be designed to be welcoming, allow access for all and have clear sight lines. They should be overlooked and well-lit and positioned to maximise accessibility. Natural drainage should be replicated as closely as possible in new development. Standards are also provided for the management of construction sites.

4.3.2 Cork County Development Plan 2022-2028

In future, it is proposed that the Greenway will form part of a longer route extending into the functional area of Cork County Council along former rail corridors. The Cork County Development Plan 2022-2028 is supportive of such development and contains the following policy objectives on Greenways:

> *"Objective TO 10-8: Walking/Cycling and Greenways Promote the development of greenways, walking and cycling routes throughout the County as an activity for both international visitors and local tourists in a manner that is compatible with nature conservation and other environmental policies.*
>
> *Objective TO 10-9: Greenways Support the development of a county-wide greenway strategy in Cork, building on the feasibility studies that have already been carried out to date and having regard to the changing national and regional policy context. The strategy would identify and prioritise suitable greenway routes to be progressed through the relevant environmental and ecological impact assessment/design/consent processes and to support the funding and delivery of such projects."*

Further, section 10.12.7 advises that a study of the feasibility of providing greenways along the abandoned rail lines of South and West Cork was completed in 2011. This study covered nine sections of rail line (including routes from Cork to Kinsale, Clonakilty, Skibbereen, Baltimore, Schull and Bantry) totalling 188km. The feasibility report concluded that no section of the line should be precluded on engineering grounds for the construction of a greenway. While most of the routes could be accommodated on the former railway alignment, there may be a need for local deviations following detailed survey and design work, landowner consultation and having regard to environmental sensitivities. In the interim, the Council intends to give adequate protection to the abandoned rail alignments to avoid inappropriate development that could compromise the viability or delivery of Greenways on these routes in future.

4.4 Other Relevant Policy

4.4.1 Climate Action Plan 2023

The Climate Action Plan 2023 provides a detailed plan for decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path become carbon neutral by 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. There are a number of specific actions of relevance to the current proposal, including but not limited to:

- Advance roll-out of the Active Travel and Greenway Network.
- Advance roll-out of 1,000km of cycling and walking infrastructure.
- Advance widespread and consistent implementation of National Cycle Manual guidance…, and
- Guidelines for local authority Climate Action Plans to include indicators in respect of accessibility, modal shift and active travel.

4.4.2 Cork City Council Climate Change Adaptation Strategy 2019-2024

This strategy aims to make Cork City as climate resilient as possible and to proactively engage with all citizens about climate action. Action 8.6 is to "*Promote cycling and walking to support a greater uptake of active travel in Cork City, thus reducing carbon emissions and improving air quality…".* Action 9.3(b) requires the protection and enhancement of biodiversity, when green infrastructure is being planned and provided.

4.4.3 CycleConnects: Ireland's Cycle Network 2022

The National Transport Authority recently (November 2022) concluded a public consultation process on a proposed safe, accessible and convenient cycle network for Ireland, CycleConnects. This should connect more people to more places and encourage sustainable travel. Cycling links are proposed in key cities, towns and villages in each county along with connections between settlements. The plan also includes existing and planned cycle routes including greenways and blueways.

4.4.4 Cork Metropolitan Cycle Network Plan 2015

The Cork Metropolitan Cycle Network Plan (CMCNP) provides a clear vision for the future development of the cycling network within the Cork Metropolitan Area to encourage greater use of cycling for trips to work, school, recreation and leisure. The plan includes recommendations for a '*series of greenway links along N40 corridor building on some existing facilities and utilising disused Kinsale Rail Line where possible'.* The Cork City to Viaduct Greenway is identified as Route CSW-GW5.

4.4.5 Cork City Walking Strategy 2013-2018

This strategy sought to increase the modal share of walking for commuting within the city suburbs. The strategy recognises the benefits of active travel, recreational and leisure benefits of walking routes and the potential to improve the quality of local environments in this manner. The areas identified for improvement were adapted to be included in the CMATS, including the upgrading of the pedestrian network in tandem with the cycle network to minimise conflicts in shared spaces such as greenways.

5 RELEVANT PLANNING HISTORY

5.1 Planning History of the Subject Site

A search was conducted on the online planning enquiry system of Cork County Council on 30th March 2023. Only one planning application site boundary was identified that overlaps with the proposed Greenway route. This is Pl. Ref. 15/4302 which was an application by Tabor Lodge Addiction and Housing Services Ltd. for an amendment to a permitted development (14/4414) for residential accommodation, education, rehabilitation and addiction counselling on neighbouring lands. The revision application comprised the omission of a permitted sewage treatment unit and its replacement with a 416m foul sewer to connect the permitted development to the public sewer. The site, and route of the sewer (which is now permitted) crosses the Greenway just east of Spur Hill.

5.2 Significant Planned Development Along or Near the Route

5.2.1 Private Development

Given the urban nature of much of the surrounding area, a significant number of planning applications have been lodged in recent years. These range from domestic extensions and alterations to commercial properties to proposals for significant residential and mixed-use development proposals. The most substantive of these are:

Pl. Ref. 2140353 / ABP PL28.314025 for proposed demolition of an existing dwelling and ancillary structures and the construction of a mixed-use residential and commercial development which would comprise of 134 no. residential units, a 3-storey neighbourhood centre building, a creche, a hotel, a new entrance / signalised junction and improvements to the N27 including 2 no. bus stops, a cycle track and footpaths and ancillary development. The application, which was subject of a decision to grant conditional planning permission from Cork City Council, is currently on appeal to An Bord Pleanála.

ABP 312866-22 (a strategic housing development) was permitted in June 2022 on the former CMP Dairy site at Kinsale Road which involves the demolition of existing structures and the construction of 352 no. apartments, 257 build-to-rent apartments, a creche and associated site works.

At the eastern side of the Garrane Darra housing development, the triangle of land just west of the proposed link from the N40, **Pl. Ref. 13/4773**, which was extended by **Pl. Ref. 18/6402** has planning permission for 10 no. houses which is valid up until 6th January 2024. The open space area on the permitted layout is adjacent to the proposed path upgrade within the former soccer grounds.

The site of the proposed link to the Greenway via the access to the disused Garrane house at Garranedarragh has seen substantive planning applications for residential development. However, the most recent of these, **Pl. Ref. 09/6395**, an application for 252 no. residential units which was extended by **Pl. Ref. 15/6208** expired during 2021.

There have been numerous planning applications on the Dunnes Stores site to the west of the proposed development in recent years, relating to the remodelling and expansion of the premises, on which construction works are ongoing at the time of writing. The most recent planning permission is **Pl. Ref. 22/41271** relating to a temporary change of use of another retail area as the centre's off-licence facility prior to integration with a café seating area to create 3 no. shop units granted under **Reg. Ref. 21/40291**.

5.2.2 Local Authority Development

The following proposals are local authority own development which are considered complementary to the proposed Greenway and which are being progressed either through the 'Part 8' procedures of the planning and development legislation, or under section 28 of the Roads Act:

- **L-2455 Lehenaghmore Road Improvement Scheme:** this project will connect directly with the Greenway and includes *inter alia* new footpaths on the eastern and western sides of the Lehenaghmore Road (L-2455) and on Pouladuff Road and Togher Road (L-2454), a new 2m on-road segregated cycle lane on the eastern side of the L-2455, a pedestrian and cycle bridge on the eastern side of the old

Bandon Railway Bridge, a new eastbound and westbound connection from the L-2455 to the proposed Bandon railway Greenway, bus shelters and bays and crossing facilities.

- **Kinsale Road (Airport Hill) Phase 2 Pedestrian and Cycle Scheme:** The proposed development includes works along the N27 including upgrades to pedestrian and cycle facilities, construction of new footpaths on Ballycurreen Road and Forge Hill Road, and the provision of a segregated on-line cycleway along both sides of the road between Ballycurreen Junction and the Airport Roundabout.
- **Active Travel Measures on Frankfield Road:** Improved pedestrian and cycle facilities along Frankfield Road including footpath widening and works to the crossing at the junction with Kinsale Road and the addition of new signalised crossings.
- **Lehenaghmore Housing Development:** Construction of a residential development of 45 no. houses at Lehenaghmore to be accessed via Togher Road.
- **Kinsale Road Housing Development:** Construction of a residential development of 39 no. dwelling units at and to be accessed via Kinsale Road.

5.3 Conclusions

A sewer has previously been permitted across the proposed route near Spur Hill, however this underground infrastructure will not be impacted by the proposed works, with services to be identified as part of the construction process.

An extant permission for a ten-house development adjacent the former Richmond soccer grounds includes for an area of open space adjacent to the fenceline that separates each area of land which is considered compatible with the proposed walkway/cycleway and will benefit the proposed housing development.

In general, the residential, employment and services uses permitted close to the route in recent years will benefit from the proposed Greenway and attract new users to the facility once constructed.

Infrastructural works being progressed by the local authority in recent years will complement the proposed scheme and collectively will contribute to an improved pedestrian and cycle network in this part of the city. New housing schemes proposed to be implemented by Cork City Council will benefit from the Greenway.

6 ASSESSMENT OF KEY PLANNING AND ENVIRONMENTAL MATTERS

6.1 Principle of the Proposed Development

6.1.1 Sustainability

The proposed Greenway will provide a valuable piece of sustainable transport and recreational infrastructure for this part of the city, promoting active, low carbon commuting modes and active recreation. In future this will be enhanced as local and regional facilities for pedestrians and cyclists are implemented.

The Greenway will be readily accessible to the local community with multiple access points proposed to be provided, along with links from existing sustainable commuter facilities adjacent to the N40. A park and cycle facility also forms part of the scheme, which will encourage the use of the facility among a wider catchment area.

Promoting the use of sustainable travel modes through the provision of Greenway infrastructure assists with sustainability goals such as the reduction in congestion and emissions.

The route proposed for the Greenway optimises the use of existing available lands by utilising the route of a former railway line. This limits the construction activity necessary to implement the proposal to primarily reprofiling and earthworks and the provision of the necessary layers for the paved track. Demolition / site clearance works required will facilitate the reuse of a disused site and allow waste material to be recycled.

6.1.2 Integrated Land Use and Transport Planning

The proposed Greenway will provide increased mobility and connectivity for pedestrians and cyclists, particularly between key routes such as Tramore Road, Forge Hill, Lehenaghmore Road (L-2455), Togher Road (L-2454) and Spur Hill and residential areas including Eagle Valley. Improved access points will be provided and better connectivity to existing and planned infrastructure will be achieved. Connectivity will be improved between commercial areas such as Pouladuff, Togher, Wilton and the City Centre and the residential areas of the southwestern suburbs such as Ballyphehane, Lehenaghmore and Togher particularly when the connections to existing facilities are considered. The new route will strengthen the network of facilities in this area, where some off-road facilities are already in place. In particular, links to existing facilities adjacent to the N40 are proposed as part of the development.

There are existing and future educational uses along the route and in the wider area (such as the further education campus on Tramore Road and future zoned lands adjacent to the route) which will benefit from safer routes for pedestrians and cyclists.

The new route will connect to existing footpaths which will allow safe routes to Tramore Valley Park, thus also enhancing access to existing recreational facilities and again forming a network of amenity areas. Other local active travel schemes will also connect into the route, and links will be provided to the Greenway from the L-2455 Lehenaghmore Road Improvement Scheme for example which will include new footpaths and a cycle lane.

The Kinsale Road / Tramore Road area has been identified within the current CDP for long-term regeneration, with planning applications for residential and mixed-use development in this area already in evidence. The Greenway will be of benefit to such future redevelopment areas with active travel (and public transport measures) considered critical provisions to facilitate such regeneration.

The links proposed will help to connect the areas along the Greenway to the expanding neighbourhood centre at the Bandon Road roundabout.

6.2 Consistency with Plans and Policies

6.2.1 National and Regional Policy

National policy provides significant support for the development of infrastructure for encouraging active travel use and the primary purpose of the proposed infrastructure in the initial stage of use is to facilitate more sustainable journeys within the southwest of the city. The route will be segregated from vehicular traffic which is a concept promoted by national active travel guidance and policy.

National policy around climate change is also supportive of reducing emissions through the promotion of sustainable transport modes.

The CMATS includes an objective for a Greenway along the former West Cork Railway alignment, which this current proposal will initiate if implemented. It also seeks to address safety issues and barriers to walking and cycling in Cork and development of this and other such routes seek to reduce scope for conflict between pedestrians / cyclists and motor vehicles. The scheme also supports the connectivity and permeability sought by the CMATS between existing facilities and new routes by including linkages and opportunities for connection along the route.

It is acknowledged within national and regional policy, including the Greenways Strategy and the CMATS, that Greenways have potential for tourism and other economic development and in the longer term this potential will increase as further phases of the Greenway are developed.

Documents such as the Greenways Strategy confirm the need for ecological assessment in planning and design and the need to comply with Irish and European law. In this respect, an Ecological Impact Assessment, and reports to inform screening for Appropriate Assessment (AA) and Environmental Impact Assessment (EIA) have been prepared.

The NPF, and particularly Strategic Outcome No. 7 and National Policy Objective 17, seeks to enhance amenity and heritage, and along with the benefits of the development as an amenity route in itself, this is supported by the proposals for the enhancement of heritage features along the route, including former railway bridges, and the objective to provide landscape and recreational features and maintain a biodiversity corridor.

The provision of new facilities such as that proposed are supported by the National Cycle Policy Framework (NCPF) where cycling is encouraged to be a normal way to travel. A 4m wide surfaced path of suitable gradient for users will be provided which is in line with national strategies and standards to ensure the facility is low risk and user friendly.

The CycleConnects project aims for a national network of cycle infrastructure, to which the proposed scheme will contribute.

6.2.2 Statutory Planning Context and other Local Policies

The CDP outlines that it is a strategic objective to invest in transport infrastructure based on the transport user hierarchy where pedestrians and cyclists are top of the hierarchy and the proposed development supports this aim. At a local level, the CDP and the Cork Cycle Network Plan show a future Greenway route / walkway and cycleway along the former rail alignment in this area, which this phase of development will contribute to implementing.

The proposed greenway use is compatible with and supportive of existing and proposed uses along the route and nearby. It is compatible with new residential and educational zoning objectives adjacent to the route and proposed public open space will complement the addition of a greenway along the former West Cork Railway corridor. Land use zonings and long-term development area policy indicate that the wider area is being developed with new residential neighbourhoods currently in conjunction with light industrial and retail units. The provision of active travel links within a plot of new residentially zoned land at Garranedarragh will complement the future uses and frontload such infrastructure within any proposed development. The Greenway and its links will be a positive addition to the area and will help to support future regeneration.

The proposal also accords with the policy of the adjoining local authority which seeks to keep former rail corridors free from inappropriate development with a view to developing future greenways within its functional area. Such development is likely to tie in with this scheme in future through the development of other sections of the former West Cork Railway in the county functional area.

6.3 Traffic and Transportation

6.3.1 Key Parameters Considered for Assessment

The key parameters for assessment during the construction and operational stages of the Greenway are set out below.

6.3.1.1 Construction Stage

Construction traffic including Heavy Vehicles (HV) and construction staff cars will need to access the area as part of the works and will travel on roads that are also located adjacent to residential developments, resulting in interfaces with cyclist and pedestrian movement. The 44-week construction stage, and its associated scale of trip generation, has been programmed to ensure that there is ample capacity to cater for the temporary HV trips and construction staff trips and to ensure there are no safety risks to existing track users and residents living close to the Greenway.

6.3.1.2 Operational Stage

The operational stage of the proposed Greenway will introduce:

- A new car park / cycle hub and upgraded access at Forge Hill.
- An interface with the existing Controlled Crossing at the Kinsale Road Roundabout and a new Toucan Crossings on Togher Road (L-2454).
- An increase of future Greenway users due to future population and employment growth in the vicinity of the Greenway and also the investment in the wider regional Greenway network and promotion of active travel use.

6.3.2 Current Environment and User Demand

A detailed description of the existing route and receiving environment is provided in **Section 2** of this report. In summary, the baseline environment consists of a former rail corridor, a section of which has already developed as a narrow walkway (circa 1.5m wide) between the Togher Road (L-2454) and Lehenaghmore Road (L-2455). The remaining sections are largely overgrown with more informal tracks between Togher Road (L-2454) and Spur Hill. The route crosses under bridges at Forge Hill, Lehenaghmore Road (L-2455) and Spur Hill but there is currently no formal crossing of Togher Road (L-2454) or of the residential access road at Hazelwood Grove. There is an existing path in the area of the former soccer grounds where a link from the N40 is proposed and an existing former residential access road for much of the area where the other N40 connection is to be provided.

Access to the Chetwynd Reservoir site is via an existing 4m wide concrete access road and it is controlled by two gates.

Currently there is no dedicated /formalised car parking location along the route to facilitate commuter use.

The existing sections of walkway along the former railway line do not comprise of Greenways or even continuous connected pedestrian or cycle routes. However, to gain an understanding of existing usage levels and patterns, Patronage (User) Surveys were undertaken to record the profile and volumes of pedestrians and cyclists at:

- A location along an existing pathway between Lehenaghmore Road (L-2455) and Togher Road (L-2454), and
- At an access point to a dirt track walkway west of Togher Road (L-2454).

The surveys were undertaken on two different days, for the hours outlined below to obtain baseline data on both weekend and weekday travel:

- **Thursday, 27th July 2022: 9:00am to 7:00pm**
- **Saturday, 30th July 2022: 9:00am to 7:00pm**

The weekday surveys recorded 85 pedestrians and 3 cyclists using the existing pathway between Lehenaghmore Road (L-2455) and Togher Road (L-2454), between the hours 9:00am and 7:00pm. The weekend surveys recorded 57 pedestrians and a single cyclist using this pathway over the same time period. Overall, the demand volumes show that existing utilisation of this section of pathway is low over a typical day.

The weekday surveys recorded 27 pedestrians using the dirt track walkway west of Togher Road (L-2454), between the hours 9:00am and 7:00pm. The weekend surveys recorded 20 pedestrians and a single cyclist using this dirt track over the same period. Overall, the demand volumes again show that the existing utilisation of this section of pathway is low over a typical day. This could be due to sections of the ground conditions being overgrown and generally unsuited to walkers.

The fact that a low level of usage has been recorded however, despite the conditions of the route, indicates a latent demand for an improved facility.

6.3.3 Assessment of Impacts from Construction Traffic

During the construction stage vehicle trips will be associated with the haulage of material to and from the site as the profile of the scheme is developed. The estimated timeline associated with the movement of excavated material is expected to be 15 weeks. Outline earthworks for the scheme indicate that the largest volume of material excavation will occur between the Kinsale Road Roundabout and Forge Hill, where over a three-to-four-week period circa 1,150m^3 of earth could be removed from the site. Based on the capacity of a construction HV being circa 10m^3 of material, this could lead to circa 115 construction HV trips over a 15–20-day period, which equates to circa 5-7 no. construction HV trips per day. Across the other sections of the scheme, it is predicted that the scale of construction HV traffic would be between 3-6 no. construction HV trips per day.

It is expected that all construction HV traffic serving the site compound and the sections of the scheme from Kinsale Road Roundabout towards Togher Road (L-2454) will use Forge Hill as the primary access point. A traffic survey (on Tuesday 6th September 2022) recorded 5,783 vehicles on Forge Hill, between the hours 7:00am-7:00pm. Therefore, the percentage impact on Forge Hill due to the increase construction HV would be negligible (less than 1%).

It is estimated that construction staff levels could be circa 40 no. personnel working on the site over a typical working day; these trips will utilise Forge Hill to access the site compound. The percentage impact on Forge Hill due to the temporary increase in construction staff levels would be negligible (circa 1.3% increase).

6.3.4 New Car Park and Cycle Hub at Forge Hill

The proposed car park will have a capacity for 50 no. vehicles and there will be associated bicycle parking and storage to accommodate park and commuter trips. A study of car parking movement at Harty's Quay Car Park in Rochestown (which is a similar sized car park to the proposed car park in this scheme and is located along a greenway route) in October 2020 showed the average duration of stay per vehicle varied from one to two hours at the weekend to shorter periods of between 30-45 minutes on weekdays. Therefore, as a worst-case scenario a capacity analysis for the upgraded access junction on Forge Hill was undertaken whereby a full suite of 50 no. cars arrive and 50 no. depart during a one-hour period.

The traffic surveys undertaken in September 2022 showed that the peak hour for traffic flow on Forge Hill occurs between 2:00pm and 3:00pm. For the purposes of assessment, it was decided to use this period. A capacity assessment was undertaken using the JUNCTIONS 8 software and the results showed that the access to the new car park will operate under capacity, with a Ratio of Flow to Capacity (RFC) of 0.12, which is well below the capacity threshold of 0.85. No queueing is predicted to occur at this junction.

Proposed sightlines of 45m will be provided in each direction in line with the Design Manual for Urban Roads and Streets (DMURS).

6.3.5 Increase in Greenway Users

It is estimated that circa 520-550 users could use the proposed Greenway per day when it opens, and this could increase significantly on the western sections of the route if the Greenway becomes part of a regional-scale Greenway to Kinsale/West Cork. The characteristics of the Greenway, along a former railway alignment, will result in reduced interaction with live traffic flow. The areas where interaction with live traffic

will occur will be at Togher Road (L-2454) via a toucan crossing, at Hazelwood Grove via a raised crossing and at the Kinsale Road Roundabout, where there will be a fully controlled crossing (see below for further detail).

The increase in Greenway users will increase the number of commuters using active travel modes for travel into Cork City. Currently there are active travel measures closer to city centre along the Kinsale Road, Curragh Road and the R851 which will provide transport corridors connections from the proposed Greenway for active travel users going into the city. Also, there are recently improved active travel measures on Togher Road (L-2454) and through Togher Village and with the proposed new active travel measures on the L-2455 Lehenaghmore Road Improvement Scheme, this will provide connectivity for users to residential, commercial and educational developments within the southwest of Cork City.

6.3.6 Interface with the existing Signal Controlled Crossing at Kinsale Road Roundabout

The proposed scheme is to tie in with the existing signal-controlled crossing, which is located at the start of the N40 westbound on-slip at the Kinsale Road Roundabout. This will provide a safe crossing point for active travel users to continue along the shared walkway/cycleways that travel through the roundabout.

6.3.7 New Toucan Crossing at Togher Road (L-2454)

It is proposed to provide a new Toucan Crossing across Togher Road (L-2454), to the north of the access to Westgate Business Park. Traffic surveys were taken on Togher Road (L-2454) (in the vicinity of the junction with the Lehenaghmore Road (L-2455)) between Tuesday 6th September and Monday 19th September 2022 inclusive. These surveys showed the average weekday daily traffic on Togher Road (L-2454) was circa 3,575 vehicles and the average weekend traffic flow was circa 2,065 vehicles.

During the project appraisal process it was estimated that circa 520-550 users per day could avail of the new scheme when it opens. This could result in an average of circa 45-50 users an hour, which in theory could result in 1-2 users activating the Toucan Crossing lights at regular two-minute intervals. With the length of the crossing being circa 9m and based on a walking time of 1.2metre/second, this could result in traffic being held up for circa 7.2 seconds, which will not lead to excessive queuing based on the scale of traffic volume on Togher Road (L-2454).

The location of the Toucan Crossing will be visible to northbound drivers from approx. 115m away and appropriate warning signs and anti-skid surfacing will be incorporated onto Togher Road (L-2454). The location of the Toucan Crossing will be visible to southbound drivers from approx. 145m away and appropriate warning signs will also be provided.

The location of the Toucan Crossing will be fully visible to vehicles turning right out of Westgate Business Park.

6.3.8 New Raised Crossing at Hazelwood Grove

The scheme will also cross a public road at Hazelwood Grove. As this road is a cul de sac accessing only 8 No. dwellings and a Traveller Residential and Yard site, the level of traffic usage is very low. The Greenway will therefore be accommodated on a raised crossing with appropriate warning signage provided along both the Greenway and the roadway.

6.3.9 New Raised Crossing within Eagle Valley

To connect the proposed links to the Greenway from the N40 to the proposed cycleway on the northern side of the Eagle Valley spine road, a raised table crossing will be provided. The road is to serve residential development only and warning signage will be provided in advance of same.

6.4 Amenity

6.4.1 General Amenity

Currently the land on which the Greenway and associated nodal points such as the car park / cycle hub and viewing and picnic area is to be provided is either unused, or where there are existing paths in place, these are underutilised. The former soccer pitch where one of the links from the N40 is to be provided is disused and the provision of the new walkway/cycleway is complementary to any future open space uses; the location of the route near the boundary of this space will not compromise any future layouts. The proposed development will significantly enhance the amenity value of the lands and will encourage active use and increased footfall due to the enhancement of journey quality for walkers, cyclists and other vulnerable road users. This will be achieved by significantly improved infrastructure including increased space, improved surfaces, safer environment in the context of segregation from motorised traffic, lighting, signage, landscaping and the provision of rest areas and a cycle hub.

Landscaping enhancements will encourage increased use of existing public open space areas and a newly zoned public open space area at the western end of the scheme will complement the routing of a Greenway adjacent to same. The proposed viewing and picnic area and seating will allow informal recreation.

The enhancement of the route will benefit the residents and workers in the areas it passes through from a visual amenity perspective and will attract commuters and visitors in the form of leisure cyclists and walkers. The reopening and repair work to the existing railway bridges will enhance the amenity value of these heritage features for users of the railway and views across the city and surrounding hills will become more accessible by the provision of the proposed infrastructure.

These amenity aspects will in future support plans to develop further phases of a Greenway along other sections of the former rail line and in turn the potential viability and success of such a route from a tourism perspective.

6.4.2 Residential Amenity

There are several residential areas located adjacent to the route which are identified in the description of the existing route and of the proposed development earlier in this report. The numbers of residents immediately adjacent to the Greenway however is not substantial.

The construction phase of the proposed development will give rise to some noise and dust emissions within the immediate vicinity of the works, which may cause inconvenience for residents living in close proximity such as at Eagle Valley, Fernwood / Fernwood Crescent, Hazelwood Grove, Kinsale Road and Garrane Darra. However, as outlined in the Report to Inform EIA Screening, given the separation distances from the works area to most of these houses, the existing boundary vegetation along much of the route, and the implementation of standard good practice construction management measures the potential for impact is considered slight to negligible in most cases. Screening as necessary for dust protection may be required to protect residents at Hazelwood Grove where the works area is close to and elevated above the residents. The works will be short-term in nature in proximity to any residents and working hours will be controlled, therefore no significant issues are expected to arise from construction noise.

When operational, the Greenway will introduce public access to some areas that are not currently used by the public and increased usage to other areas. In places where there are residential properties close to the alignment the Report to Inform EIA Screening identifies the potential to give rise to overlooking and increased noise so as to impact on privacy and general residential amenity. Proposed landscaping and or lighting also has potential to impact both positively and / or negatively. Generally, most houses are a sufficient distance away (e.g. at Eagle Valley near the Chetwynd Reservoir and Garrane Darra where the links will be on the opposite side of the internal roads from the houses) or are sited at levels that will minimise the risk of overlooking or invasion of privacy or for spill over from new lighting, or there is existing screening in place (Fernwood / Fernwood Crescent, Lehenaghmore Road). In several areas however, where considered necessary, screening is to be provided along property boundaries, particularly where new public access is to be introduced. These areas include houses at Hazelwood Grove, the neighbouring Travellers Accommodation and Yard site and the rear of houses at Kinsale Road at the eastern end of the scheme. New boundary walls will also be provided to the properties in this area from which land will be acquired to facilitate the scheme. Lighting will be sensor controlled to minimise its use. Within Garrane Darra, a parking space will need to be relocated to facilitate the connection of the link to the public road

however this is not assigned to any particular property and no loss of parking overall will arise. There is ample space to accommodate the amended arrangement.

Litter bins are to be provided and managed by the local authority to minimise any potential for impacts from litter pollution to properties adjacent to the route.

Overall, the residents of nearby dwellings will in general benefit from the scheme, and this will outweigh any adverse effects on the residential amenity of individual properties, which in any event are not expected to be significant.

6.5 Health and Safety

Along with amenity benefits, there is a public health and safety benefit arising from the proposed scheme. The users of the Greenway will be segregated from live traffic for the full route with the exception of a Toucan crossing at the intersection with the Togher Road (L-2454) and a raised crossing at Hazelwood Grove. A raised table crossing within the Eagle Valley housing development will be provided to connect one of the links from the N40 to the proposed cycleway along the spine road within this estate. As outlined above, additional space will be provided for users where there are existing paths along the route and signage will be provided to manage interactions between different categories of users. This should minimise conflict between users and potential collision and injury. Lighting will be provided along the route to enhance security for users.

The development of routes such as this proposed Greenway also has wider health and wellbeing benefits as the local and visiting population are encouraged to use active modes for journeys or use the facility for social and recreational purposes.

6.6 Biodiversity

6.6.1 Ecological Impact Assessment

An Ecological Impact Assessment (EcIA) has been carried out for the proposed development by Green Leaf Ecology. This has been informed by desktop studies and field surveys, including general site walkover and habitat survey; surveys for invasive alien species, breeding birds, otter and badger; and bat surveys including bat activity surveys and a preliminary roost assessment.

The EcIA also identifies designated sites within the vicinity of the Greenway site, including two European designated sites, which are addressed elsewhere by way of AA Screening (see Section 1.3.1.3 of this report), and nationally designated sites. It is noted there are fifteen proposed Natural Heritage Areas (pNHAs) and no NHAs within 10km of the site. The nearest pNHA to the site is the Cork Lough, which is 1.5km north of the route.

A range of habitats and plant species were identified at the site as detailed in the EcIA. No rare or protected species of flora were identified. Invasive species of plant are addressed separately below.

No protected species of invertebrate or habitat suitable to support Marsh Fritillary butterflies were encountered. No evidence of otter was recorded, and the streams are not considered suitable to support a sustained foraging resource for otter; the streams are also extensively culverted downstream of the site. Habitat suitable for the common frog was identified at the location of a drainage ditch along one of the proposed links however no evidence of the presence of the species or other amphibians was encountered.

No evidence of badger or hedgehog was recorded during survey work, though the habitat is considered suitable for both species.

No birds were confirmed as breeding at the site though there is potential for this to be occurring given the presence of the birds identified. Seven species of birds on the Amber List of the Birds of Conservation Concern were recorded at the site (Moderate Conservation Concern), however no bird species of high conservation concern were recorded.

A total of two trees adjacent to the proposed link to the greenway from the N40 to Eagle Valley via undeveloped lands were categorised as being of moderate suitability for roosting bats as they contained one or more potential roost features, but none are suitable for use by larger numbers of bats on a regular basis due to their size and lack of protected, sheltered conditions. The concrete culverts via which the former railway corridor crosses over the two streams it intersects are not suitable roosting or resting places for bats. Further, the three railway bridges along the route are pointed and no features likely to be used as resting or roosting places for bats have been recorded. Five species of bat were recorded as commuting or foraging at the site and it is likely that there are roosts for at least two of these species somewhere close to the site.

Potential for adverse impact is considered to be limited to a small number of habitats and species (aquatic habitats, birds, bats and badger and general effects of invasive species) and mitigation measures have been specified where considered necessary. The mitigation measures include best practice measures for control of pollutants and sediment during construction, and mitigation measures to protect birds, bats and badgers.

The mitigation measures include *inter alia* the avoidance of clearance of trees from the site during the bird breeding season where practicable or the undertaking of pre-construction bird surveys and the use of any necessary buffer zones for active nests where this is unavoidable; measures around the appropriate use of lighting at both construction and operational stages, the protection of roosting and bat habitat (management of tree felling etc) to protect bat species; and the carrying out of a pre-construction survey for badger. Measures are also specified for the management of invasive alien species and for biodiversity enhancement such as the installation of bird boxes and bat boxes.

Monitoring is also recommended with respect to light spill from lighting onto sensitive bat habitats and the checking of bat boxes, with modifications or relocation to be triggered respectively as necessary depending on the outcome of the monitoring.

With the implementation of these mitigation measures, the EcIA concludes at the Greenway will not result in significant adverse effects on terrestrial or aquatic ecology.

6.6.2 Invasive Species

Two stands of Japanese knotweed were identified in the vicinity of the proposed route; one within the proposed Greenway alignment adjacent to the bridge at the west of Forge Hill and one adjacent to the proposed Greenway to the east of Forge Hill. This species is listed on the Third Schedule of the EU Birds and Natural Habitat Regulations 2011.

A number of other non-Third Schedule listed invasive plant species have also been recorded during survey and these include Butterfly Bush (Buddleja davidii), Himalayan Honeysuckle (Leycesteria Formosa) (both of which are recorded scattered throughout the site), and Bamboo and Traveller's Joy (Clematis vitalba) have also been identified.

An Invasive Alien Plant Species Management Plan will be prepared for the proposed greenway to ensure that the risk of spread of invasive plant species is avoided/ minimised. Therefore, the proposed greenway is not likely to result in significant negative effects as a result of the spread of invasive plant species. The Japanese knotweed stand directly within the alignment will be appropriately removed in a manner to be set out in the Management Plan. The other stand adjacent to the alignment will be treated in accordance with the Management Plan as part of the current scheme. This will have a positive impact on native existing surrounding vegetation which would otherwise be under threat.

6.6.3 Tree Survey

A Tree Survey has been prepared by Green Tree Arborist for the proposed development. This identifies trees along the route and recommends which of these are to be retained or removed. 176no. trees were identified and assessed as part of the survey report. 22 no. of these are recommended for removal where they are in direct conflict with the Greenway; these trees are category C or U trees which are considered as of low quality or are unretainable respectively and are predominantly self-seeded recently colonised willow trees. A further 31 no. trees are recommended for removal due to their physiological (e.g., those infected with Ash Dieback) or structural condition.

An Arboricultural Method Statement and a Tree Protection Plan have been prepared. The Arboricultural Method Statement includes measures for the management of the construction process such as the placement of barriers and membranes, monitoring measures for issues such as fungal pathogens in Ash species and replacement planting. The Tree Protection Plan identifies locations for the erection of protective fencing during works.

The output and recommendations of the survey the Arboricultural Method Statement and the Tree Protection Plan have been and will be incorporated into the development and construction proposals and the management of the Greenway going forward. They will assist in retaining and enhancing the quality of vegetation along the Greenway with associated benefits for biodiversity and amenity.

6.7 Flood Risk Management

A Stage 1 Flood Risk Assessment (FRA) was prepared for the proposed development. The Stage 1 FRA is informed by available and recorded data such as the Office of Public Works (OPW) Flood Hazard Mapping. This data does not record any past flood event along the route but identifies 4 no. events within 150m of the Greenway. These events comprised of 2 no. events related to the streams that intersect the route (one at each) and two rainfall-related events.

The OPW's Preliminary Flood Risk Assessment maps were also consulted which identifies risk to the Greenway from potential fluvial flooding from the two streams. The PFRA Map also indicates a risk from pluvial flooding at Garrane Darra where the proposed greenway is to be linked via a walkway/cycleway link with the N40. The predicated extent of flooding is indicative only. A more detailed assessment of certain areas identified in the PFRA (Areas for Further Assessment or AFAs) was carried out as part of a Catchment Flood Risk Assessment and Management Study (CFRAM). The AFAs included Togher village which was identified as being at risk of flooding, along with some small green areas along the Douglas (Lee) stream north and south of the culverted crossing being mapped from high, medium and low probability flood events.

The Strategic Flood Risk Assessment for the Cork City Development Plan 2022-2028 was reviewed and indicates flood extents associated with both streams. Small areas of flooding adjacent to and on (0.7% of the overall length) the Greenway are identified.

Given that the route passes through an area of predicted fluvial flooding, a Stage 2 FRA was then prepared. This includes a Source-Pathway-Receptor model.

The Stage 2 FRA notes that greenways are considered water compatible development in the context of The Planning System and Flood Risk Management Guidelines for Planning Authorities with such works appropriate to the locations where low and medium risk of flooding are considered to apply, as the consequence of any such event is considered low.

In considering the risk of impacting flood risk elsewhere, the Stage 2 FRA acknowledges that given the lack of proposals to significantly alter the topography of the route any future flood events would be contained within the footprint of the amenity area and would recede into the draining watercourses. The FRA also takes account of works being carried out as part of the Togher Flood Relief and Public Realm Enhancement Works scheme which includes conveyance improvements, culvert removal and replacement, flood defence walls and a trash screen. The installation of a new culvert between Togher Community Centre and Lehenaghmore Industrial Estate and a trash screen at the rear of Lehenaghmore Industrial Estate is noted. The scheme will provide protection to existing residential and commercial properties at risk from fluvial flooding against the 1% AEP event standard which is roughly equivalent to a 1 in 100-year storm. In terms of pluvial flooding, existing drainage is in place in Garrane Darra and most of the additional links in this area are already hard-surfaced with negligible changes to arise.

The Stage 2 FRA concludes that the overall risk of flooding to the Greenway - Phase I is low. While it is noted that the risk of flooding to the Greenway development would be Medium in localised areas, the consequence of any such flood event is deemed low as amenity issues are classed as water-compatible development. Further, because the proposal is water-compatible, a Justification test is not required in accordance with the guidance document. Finally, as the proposed works will not significantly impact on the topography of the existing lands within the predicted flood plain area, the proposed works were not found to increase flood risk elsewhere. Therefore, the risk of flooding elsewhere due to the works is considered to be low.

6.8 Other Environmental Considerations

As discussed above under **Section 1.3** of this report, screening exercises have been carried out for EIA and for AA and it has been concluded that there are no requirements for the preparation of either an EIAR or a Natura Impact Statement for the Proposed Development. The reports to inform these screening assessments contain a significant amount of information on environmental considerations. Some of the more pertinent information not covered earlier in Section 6 is synopsised below.

6.8.1 Population and Human Health: Land Use

With respect to land use, the construction and presence of a Greenway can result in temporary or permanent effects on land use through land-take, severance or reduction in viability which prevents or reduces its value for intended use. it is considered however that the commercial and light industrial businesses within the vicinity of the Greenway do not pose a constraint to its development. With respect to residential development, the Greenway will impact on two existing areas of public open space serving local residents, at Eagle Valley and Hazelwood Grove. At Eagle Valley the routes of the Greenway and one of the linkages from the N40 will reduce the area of public open space, but the route is so aligned to minimise the fragmentation of the open space. The remaining area of open space will be significant and will continue to allow for informal play and passive recreation as is the existing situation. At Garrane Darra, a parking space will be relocated to facilitate the link connection to the estate road but this space is not assigned to any particular dwelling and there will be no loss of parking at the overall complex. At Hazelwood Grove the Greenway and associated landscaping will take up most of the existing open space area. While altered, it will still retain a public amenity and recreation function. Land take from residentially zoned and open space lands to accommodate links will not restrict but rather will support future development of these areas. Localised adverse impacts may arise, however, on the whole the enhanced recreational use of this area will be a moderate, positive more widespread impact for the wider community.

6.8.2 Material Assets: Third Party Land Take

It is necessary to acquire land from two residential properties to the west of the Kinsale Road Roundabout. The areas of land required are currently in use as private back garden amenity open space. The areas required comprise only a small proportion of the open space of both properties with no significant impacts arising for the continued private open space use of the remaining garden areas. Both properties will retain generous private garden areas.

A wall from Westgate Business Park is to be removed but land take arising will be negligible, and provision is made for appropriate boundary treatment.

A substantive amount (approx. 4,000sq.m.) of privately owned land is required to the east of Spur Hill, where the former railway alignment has over time passed out of public ownership. This land currently accommodates a rough pathway. This use will be enhanced by the proposed scheme. The private land on either side of this part of the route is in agricultural use. Once access for continued agricultural use of the retained private land on both sides is maintained, the impact on agricultural land use will be slight only.

To accommodate the links to the Greenway from the N40, two areas of private land will be subject to land take. The first is disused land partly zoned for new residential development. In this area almost 3,000sqm of lands will be acquired however this is sited at the edge of the land holding and utilises existing access road infrastructure where possible. Sufficient space remains for future vehicular access should the lands be developed in future and the scheme will provide active travel facilities for any future housing development.

The second relates to the lands of the former soccer field and adjacent unused area between same and Garrane Darra on which there is planning permission for housing development (just under 1,800sqm in total). The route will however be located on lands that are zoned for or permitted as public open space and no significant impact is anticipated.

6.8.3 Population and Human Health: Economic Profile and Tourism

On the whole the proposed development will generate short-term employment during its construction phase and has significant potential in the long-term particularly as part of an extended route, to comprise of a substantive tourism offer for Cork City and County which will have positive economic effects.

6.8.4 Built and Cultural Heritage: Archaeology

A holy well feature (St. Bartholomew's Holy Well) listed on the Sites and Monuments Record is located within the immediate vicinity of the proposed development. John Cronin & Associates has prepared an Archaeological Impact Assessment (AIA) report to consider the potential impacts of the proposed development on this feature.

The AIA notes that the Archaeological Survey of Ireland inventory description of St. Bartholomew's Well (CO086-006----) records that it was destroyed during the construction of the Cork-Bandon railway in the middle of the 19th century. In addition, no surface traces of the well or any potential associated features, were observed during the site inspection of the area. The AIA concludes that the proposed Greenway will not result in any predicted impacts on the holy well, but this will need to be confirmed by archaeological supervision of vegetation clearance works within the environs of its recorded location.

The AIA also identifies an opportunity for the erection of an information board within the vicinity of the holy well site and Spur Hill commemorating the former location of St. Bartholomew's Well, to help ensure that a folk memory of the site continues. It is suggested that this could potentially include content from the 18th century descriptions of the holy well and its associated traditions. This is proposed to be provided and will be a positive aspect of the scheme from a cultural heritage perspective. No other recorded archaeological features have been identified within or close to the route of the Greenway.

6.8.5 Built and Cultural Heritage: Architectural Heritage

A Conservation Report by Jack Coughlan & Associates Architects was undertaken to identify structures of architectural heritage value within and adjacent to the proposed development and to assess the potential impacts of the proposed development on same.

The former West Cork Railway corridor passes under three original Railway Bridges at the following locations: Spur Hill, Lehenaghmore Road (L-2455) and Forge Hill. These three features are listed on the National Inventory of Architectural Heritage (NIAH). There are no features on the Record of Protected Structures (RPS) within or close to the Greenway route.

Works to the railway bridges will include repointing of masonry stone/open joints and the repair of the parapet walls and the clearance of dirt, vegetation and graffiti in accordance with a method statement as set out in the Conservation Report. As indicated in the Conservation Report: *"The proposals to retain the bridges, which are currently in poor repair and vulnerable to continuing loss of fabric, and not to alter them but to repair them using best practice methods will also have a major beneficial impact on these structures, whose regional significance is recognised by the NIAH. The decision to route the proposed Greenway under the existing historic bridges means that their historic function and character will remain fully legible".*

The Conservation Report concludes that the Greenway will have a beneficial impact on the historic route of the former Cork, Bandon and South Coast railway line, which will continue to be legible, with recognition of its character as a former rail route maintained. The Greenway would also maintain the route for the possible reintroduction of a rail line in the future should the demand arise, and the proposed repair works to the bridges along the route is also considered a positive aspect of the works.

The proposed development will reuse the former railway corridor and will result in a positive enhancement and presentation of this cultural heritage resource, facilitating enjoyment and learning for local and visiting users of the Greenway, whilst also having due regard for the inherent protection and preservation of this historical resource.

6.8.6 Water

6.8.6.1 Surface and Ground Water Quality and Management

The site crosses two small 1st order streams and one field drainage channel. The proposed Greenway is located over an area that ranges from 'High' to 'Extreme' groundwater vulnerability. There are no one karst features located in the vicinity of the route.

There is potential for water pollution during the construction phase due to the potential release of sediment or accidental spillages to the water. Mitigation measures are provided within the EcIA as discussed above. However, there is no requirement for the installation of culverts or instream works so the risk of such pollution is very low.

The presence of additional paved surfaces in previously undeveloped areas (in particular for the proposed new carpark at Forge Hill) will restrict the amount of rainfall that will infiltrate to ground, potentially restricting groundwater recharge rates in the area. However, given that this will comprise a negligible portion of additional paved area in comparison to the area of the Ballinhassig East Ground Water Body as a whole, no perceptible permanent effects on the groundwater regime of the area are considered to arise.

Drainage is limited to over the edge drainage, which will allow surface water runoff to infiltrate back to ground. Specific proposals for the car park, which include an interceptor for pollutants before discharge to the existing surface water network, will protect surface and groundwater quality.

No significant effects on water quality or the local drainage regime are anticipated.

6.8.7 Landscape and Visual

The Greenway route lies within Landscape Character Type City Harbour and Estuary which is a High Value Landscape. The section of the route within Chetwynd Reservoir is within the Prominent and Strategic Metropolitan Greenbelt Area and zoned as ZO 20 City Hinterland as set out in the Cork City Development Plan 2022-2028. The proposed scheme is however compatible with the objective for that area which includes for recreational uses, open space and green and blue infrastructure. The scheme also seeks to enhance and protect biodiversity which also aligns with the objectives for this area.

Scenic Route Ref. HVP7 is referenced in the Cork City Development Plan 2022-2028 as the Road between Frankfield and Ballygarvan Townland. This route runs along the N27 Kinsale Road and is adjacent to the eastern end of the proposed development; in this area, the route lies within a built-up area. As an at-grade pedestrian and cycle route, the greenway does not comprise any substantial structural elements with potential for significant visibility in the wider area. The fact that the greenway will be accommodated within a former railway corridor largely kept free of development and having considerable boundary vegetation means that there will be very limited visibility of the route from surrounding areas. Generally limited views onto the route will be available from the local road network.

Where views of the Greenway are available from surrounding roads or residential areas, the Greenway and its associated landscaping will be a positive contribution to the local landscape.

6.8.8 Other Environmental Factors

6.8.8.1 Noise and Vibration

Potential noise impacts during the construction stage will vary throughout the works. Existing pathway sections will largely comprise online widening and improvements, whilst works in some sections (where no pathway currently exists) is likely to be more extensive in nature. Once constructed, likely noise emissions will be limited to use of the route by walkers and cyclist, traffic associated with walkers and cyclists accessing the route and low impact maintenance routines. Where the existing route is located close to workplaces, houses and the N40 national road, current users of these sections of the walkway experience noise levels and air emissions associated with the existing activities and passing traffic.

Works will be carried out in sections and are not complex in nature. Standard best practice controls will be in place such as limitations on working hours. Therefore, noise impacts will be limited for any one receptor during construction.

During the operational phase there is likely to be an increase in users of the Greenway which has the potential to result in increased noise levels in proximity to residential properties. However, screening is proposed where necessary.

6.8.8.2 Air Quality and Climate

The main potential sources of pollution arising from the construction phase of the development relate to air quality (dust), sediment runoff and noise. In terms of noise, the following are the aspects of the works that are likely to generate noise: earthworks, drainage works at the proposed Forge Hill Car Park, planing of the existing walkway between Togher Road (L-2454) and Lehenaghmore Road (L-2455) and breaking out of hard material. General plant and machinery and construction traffic .

There is potential for dust generation during the construction phase from plant and construction traffic. There is also potential for material in temporary exposed soil/stockpiles to become airborne and impact on human health.

The properties within Fernwood and Fernwood Crescent are within 50m of the proposed works and are separated from the works by a dense tree line which will offer protection from any potential dust. The properties at Eagle Valley and Hazelwood Grove are within 25m of the proposed works and do not have any protection between the works and the properties. Houses at Garrane Darra are also within 50m of the works area for the proposed links from the N40. Temporary dust impacts may arise during the 10-month construction phase period resulting in temporary imperceptible to slight negative effects in the absence of mitigation.

Construction vehicles travelling to and from the site during the construction phase have the potential to give rise to dust and increased pollutant concentrations at nearby sensitive receptors including the residential properties adjacent to the works. Given the scale of the project, it is not expected that the proposed development will generate a volume of traffic that would give rise to significant impacts from vehicle emissions from construction traffic.

The operational phase will have a positive impact on air quality and climatic factors due to the fact that it will encourage more sustainable modes of transport, i.e., cycling and walking for commuting and leisure activities. The proposed development will decrease the reliance on the private car leading to a reduction in emissions from private cars. This amounts to a long-term significant positive effect in terms of air and climatic factors.

7 CONCLUSION

The Cork City to Viaduct Greenway, Phase I – Tramore Road to Eagle Valley, will be a positive asset to the southwest of Cork City and its hinterland. A new and improved commuter and recreational route will be provided along this historic former rail corridor on land which is currently disused or underused. The Greenway will primarily serve a commuter / active travel function and will encourage a greater share of journeys to be undertaken by sustainable travel modes. The secondary recreational function of the route will also be enhanced likely resulting in much greater recreational use of the route.

In the longer-term this initial phase has the potential to form part of a longer greenway with significant active travel benefits as well as tourism potential and enhanced local recreational offer.

The scheme will be of benefit to the area from a health and wellbeing, climate change and economic perspective and is compatible with national, regional and local planning policy objectives along with related climate and transport policies.

The location of the route along the former railway corridor and adjacent lands is a sustainable location for the new infrastructure to be provided; due cognisance of the protection and enhancement of natural and built heritage features along and adjacent to the route has resulted in a scheme that will result in a high-quality facility while respecting the valuable cultural heritage features, natural habitats and species of importance.