

# Langarth Garden Village, Truro

Transport Assessment

CORMAC Solutions Ltd

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## Quality information

### Prepared by



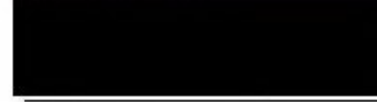
Matthew Davies  
Principal Consultant

### Prepared by



Craig Oakes  
Principal Consultant

### Checked by



Chris Carter  
Associate Director

### Verified by



Jeremy Douch  
Regional Director

### Approved by



Chris Carter  
Associate Director

## Revision History

Revision	Revision date	Details	Authorized	Name	Position
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## Distribution List

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No	Yes	CORMAC Solutions Ltd

Prepared for:

CORMAC Solutions Ltd

Prepared by:

AECOM Limited  
Plumer House  
Third Floor, East Wing  
Tailyour Road  
Crownhill  
Plymouth PL6 5DH  
United Kingdom

T: +44 (1752) 676700  
aecom.com

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# 1. Executive Summary

## 1.1 Context

- 1.1.1 AECOM was commissioned by CORMAC Solutions Ltd (herein referred to as 'CORMAC'), through a partnership arrangement for Cornwall Council (CC), to produce a Transport Assessment (TA) to accompany a planning application for a residential led mixed-use development close to Threemilestone, Truro, in Cornwall.
- 1.1.2 The 240-hectare site is located to the north of the A390 road at Threemilestone and extends in an elongated fashion from West Langarth Farm in the west to Truro Golf Club in the east. The proposed development site is approximately 3km in length and ranges in width up to circa 800m wide at its central point. Truro City Centre lies 3.5km from the Maiden Green Roundabout, at the eastern extremes of the site. The A30 routes to the west, approximately 2km from the western extent of the site. The site lies within the Kenwyn Parish boundary and abuts the Truro City Council boundary at the east.
- 1.1.3 The site is allocated for development in the emerging *Truro and Kenwyn Neighbourhood Development Plan* (NDP). It benefits from numerous consents for residential and non-residential development that have not yet lapsed; these include consents relating to Langarth (References: PA11/06124 and PA15/11489), East Langarth / Willow Green (References: PA14/10755, PA16/07602, PA16/07603, PA16/07610) and Maiden Green (Reference: PA14/00703). In total, the consents at these three sites provide for residential development of circa 2,500 dwellings and retail development of 90,963sqm.
- 1.1.4 The key principles of this TA were approved with the highway authorities following submission of a TA Scoping Note in January 2020. A revision to the Scoping Note was issued in June 2020, which set out a revision to the approach to traffic assessment, in order to accurately assess impacts and determine trigger points for infrastructure improvements or requirements. The TA has been produced on the basis of the matters discussed and agreed with the highway authorities.

## 1.2 Existing Situation and Accessibility

- 1.2.1 The TA provides a description of existing transport conditions and accessibility at the site, including current highway safety and traffic conditions, sustainable transport opportunities, and access to local facilities and amenities on the local highway network.
- 1.2.2 Key highway links in the vicinity of the site include the A390 to the south, a single carriageway road running on an east-west alignment between Chiverton Cross (A30) and Truro. The A30, accessed around 2km to the west, is the main highway route through Cornwall from Exeter, where it meets the M5 Motorway. The consented A30 Carland to Chiverton Cross (CtCC) scheme will deliver improvements including dualling of the A30 and the provision of grade-separated junctions at Chiverton Cross and Chybucca.
- 1.2.3 Highway safety on the study area network has been reviewed using Personal Injury Accident (PIA) data obtained from CC. Analysis of the PIA data concludes that there are no locations where highway design has been determined as a causation factor or is indicative of an inherent highway safety issue.
- 1.2.4 There are numerous opportunities for sustainable transport within the local area, including walking and cycling routes, Public Rights of Way (PRoW), neighbouring bus stops and the Langarth Park and Ride (P&R). There is a wide of range of services and amenities in close proximity to the site, providing retail, commercial, educational and health provisions for future residents. Services and amenities are available with access by a range of modes at reasonably attractive journey times. Bus services, including the P&R, provide access to the City Centre, rail station and locations further afield, whilst walking and cycling offer access to a selection of local amenities within a range of up to 20 minutes depending the location of the origin.
- 1.2.5 The site is therefore considered to be highly accessible when using active travel modes and public transport. The proposed development will enhance this through its Sustainable Transport Strategy (STS) and provision of a comprehensive range of local amenities which will be available to all site users and the surrounding community.



## 1.3 Proposed Development

### 1.3.1 The description of the development is as follows:

*“Hybrid planning application for Langarth Garden Village comprising;*

*A. A full planning application for construction of the Northern Access Road and associated access junction arrangements onto the A390, new junctions to the quiet lanes and associated infrastructure and earthworks and retaining and boundary features.*

*B. An outline planning application with all matters reserved to create a mixed use, landscape-led community comprising a phased development of up to 3,550 dwellings plus 200 extra care units and 50 units of student/health worker accommodation, including affordable housing; five local centres comprising local retail (E), offices (E), restaurants and cafes (E), drinking establishments (sui generis), hot food takeaway (sui generis), health and community facilities (F1 and E), a local care health centre (E), a blue light centre for emergency services (sui generis), up to two primary schools (F1), business and commercial floorspace (E), brewery / public house (sui generis) and associated areas of open space to include a suitable alternative natural greenspace as a strategic open space a community farm/allotments, public realm, renewable energy provision and energy centre, park and ride extension (of up to 600 spaces or 2.73 ha), cycle lanes, connections with the existing highway network including crossings of the A390, quiet lanes, drainage and associated infrastructure, including the demolition of buildings and structures, site clearance and associated earthworks.*

*C. The Application is accompanied by an Environmental Statement.”*

### 1.3.2 CC has sought Capital Funding to acquire some of the land from individual developers and to act as 'master developer' to ensure a comprehensive masterplan approach to the whole site. The scheme will deliver both high quality homes and a substantial level of complementary land uses (with an appropriate level available to future residents during the early phases of the build-out), therefore minimising the need to travel off-site. The access strategy, masterplan design, and STS will offer substantial opportunities for travel by sustainable modes. The overall strategy will ensure a sustainable community that is an attractive place to live and work.

### 1.3.3 The proposed development will be served, in full, by the Northern Access Road (NAR). CC has secured a Housing Infrastructure Fund (HIF) grant from the Ministry of Housing, Communities and Local Government (MHCLG) to deliver the NAR. The NAR will run parallel to the A390 and connect from West Langarth in the west, to Royal Cornwall Hospital Trust (RCHT) and existing commercial / employment land (at Oak Lane / Penventinnie Lane) in the east. Other access points for both vehicle and non-vehicle access will be provided along its length. Prior to the delivery of the NAR, the Interim Link Road (ILR) will facilitate early construction on the site, and has sufficient capacity to facilitate the occupation of up to 300 dwellings. Upon opening of the NAR, the section of the ILR to the south of the western development plot access will be restricted to buses only (controlled by a bus gate). The remaining ILR to the north of this location will be retained as vehicular access to the adjoining development plots.

### 1.3.4 The NAR will provide a primary route through the site with secondary and tertiary links complementing the access and movement strategy within the development. Cycle routes and footways will play a key part in the connectivity of the site providing an integrated and permeable scheme.

### 1.3.5 The strategy for the proposed development provides a closely linked walkable neighbourhood with strategic links to the A390 and associated facilities. The proposed development will provide a range of measures to promote sustainable travel and the principles of *Manual for Streets* (MfS) and *Manual for Streets 2: Wider Application of the Principles* (MfS2) have been used to inform the design parameters for the transport network within the scheme. A number of crossing points and connections are provided to reduce the potential barrier effect of the A390. PRow continue through the site and beyond to connect to and enhance existing provisions whilst public transport services will be integrated through the proposed development.



## 1.4 Sustainable Transport Strategy

- 1.4.1 Planning policy and wider travel trends all point towards the need and potential to reduce car-dependency and increase the uptake of sustainable transport in the context of not only the 'climate emergency', but also in terms of healthier lifestyles and management of existing highway networks. It is vital that we move away from the 'Predict and Provide' methodologies which have entrenched car dominance in our cities. Instead, we need to implement 'Decide and Provide', which establishes the travel patterns which support low carbon and active lifestyles, and then provides the measures required to deliver on that aspiration. This ambition forms the basis for the STS for the proposed development.
- 1.4.2 The aim of the STS is to minimise the level of traffic generated by the development, and to achieve a substantial reduction in existing traffic through encouraging mode shift to offset traffic generated by the proposed development. This will be achieved through a range of measures that will be integral to the proposed development and will reduce traffic, both from the development itself but also in regard to other (background) traffic. This includes measures that will reduce the need to travel, reduce the distances that people need to travel (supporting active travel), embed sustainability into the design of the development, and support people's opportunity to travel sustainably. This is consistent with the hierarchical approach to transport mitigation set out at Paragraph 110 of the *National Planning Policy Framework* (NPPF, 2019).
- 1.4.3 Furthermore, CC is delivering a range of initiatives in Truro which will benefit existing and future residents. This includes the public sector TP and Truro Transport Strategy (TTS) Refresh.

## 1.5 Development Trip Generation, Distribution and Assignment

- 1.5.1 Multi-modal trip generation forecasts have been prepared based on person trips and mode shares. Total person trips have been extracted from the TRICS database for each of the land uses to derive the total person trip generation of the proposed development. A mode share for each type of land, derived from 2011 Census and National Travel Survey (NTS) sources, has then been applied to the person trip rates to derive multi-modal trip rates for each land use. The multi-modal trip rates have then been applied to development quanta, from which it was identified that the highest person and vehicle trip generation during the weekday AM and PM peak periods occurs during the hours commencing 08:00hrs and 17:00hrs respectively. These have been used as the peak development traffic hours for the purposes of this TA.
- 1.5.2 The forecasts derived from this methodology have been refined to take account of the effects of internalisation of trips (i.e. trips between land uses within the development) and mode shift associated with the STS. Appropriate levels of internalisation and mode shift associated with the STS have been identified, based on discussions with CC. In regard to the former, these have been applied as a reduction in external trip generation. With regards to the latter, the adjustments in traffic mode share have been reassigned onto other modes to derive 'adjusted' multi-modal trip rates. The 'adjusted' multi-modal trip rates, together with the internalisation factors, have been applied to the development quanta for the respective land uses to derive a tailored multi-modal external trip generation of the proposed development.
- 1.5.3 Overall, the proposed development is forecast to generate around 3,800 two-way external person trips during the AM peak hour, of which around 1,100 are forecast to be vehicle trips. During the PM peak hour, the proposed development is forecast to generate around 3,600 two-way external person trips, of which around 1,100 are forecast to be vehicle trips. Vehicles (as a driver or rider) generally account for the highest mode share (29% in the AM peak hour, 30% in the PM peak hour), followed by walking (29% in the AM peak hour, 27% in the PM peak hour) and public transport (21% in the AM peak hour, 27% in the PM peak hour). Car share and cycling have similar mode shares, at around 10%. In summary, around 60% of peak hour trips are forecast to be undertaken by sustainable modes, and 40% by private vehicles.
- 1.5.4 External development traffic has been distributed and assigned to the local highway network using a spreadsheet model based on 2011 Census data. The likely routing of development traffic between the development site and origins / destinations has been established using an online route planning application for a neutral weekday peak hour period. Where more than one route has been available, appropriate weighting has been applied based on a generalised cost formula.



## 1.6 Assessment Scenarios

- 1.6.1 The assessment scenarios have been produced using a spreadsheet model informed by future baseline traffic flows derived from data and forecasts from the Truro HIF SATURN model, with local adjustments to ensure sufficient granularity for local impact assessment. The forecasts also include committed infrastructure changes, including those associated with the committed A30 CtCC scheme; this will result in significant changes in background traffic flows on the network upon opening (in 2023), and therefore it is considered appropriate for assessments to be informed by forecasts based on the future highway network.
- 1.6.2 Traffic in the model associated with previous incarnations of the proposed development site has been removed (more refined development traffic forecasts are added at a later stage of the process). It should be acknowledged that a significant number of dwellings are currently consented on the site of the proposed development through previous applications. Whilst these are technically 'committed development', it has been agreed with CC that the future baseline traffic flows will not include dwellings consented on site for the purpose of presenting a clear analysis of traffic conditions both with and without the proposed development.
- 1.6.3 The SATURN model forecast years of 2023 and 2038 have been utilised. 2023 is the earliest year of assessment available in the area-wide model (corresponding with the expected opening of the A30 CtCC scheme). 2038 is the latest year of assessment available in the model and is considered to represent a reasonable timeframe for later phases of build-out of the proposed development and assessment of operational effects. The weekday AM and PM peak hours have been examined for each assessment year, both without ('Base' scenario) and with ('Base + Development') the proposed development.
- 1.6.4 Current and future trends in travel patterns have been identified and adjustments made to the future year baseline traffic flows to provide a more realistic assessment of future traffic conditions. These trends include an increase in homeworking, reductions in longer distance in-commuting through rebalancing housing and jobs, and transfer of traffic to P&R services as a result of an extension to the existing Langarth P&R. A clear methodology has been identified for the application of each trend with reference to supporting evidence and incorporated into 'Base' and 'Base + Development' scenarios as appropriate.

## 1.7 Traffic Impact Assessment

- 1.7.1 Junction capacity modelling has been undertaken to assess the development traffic impact of Langarth Garden Village on the local highway network. A total of 19 junctions on the local highway network have been assessed, in addition to the development vehicle accesses (four junctions). Priority-controlled junctions, including T-Junctions and roundabouts have been assessed using Junctions 9 software. Signal-controlled junctions have been assessed using LinSig.
- 1.7.2 The assessment shows that most junctions are forecast to operate within practical capacity in all assessment scenarios, with acceptable levels of impact from the proposed development. The exceptions to this are Junctions 13 (A390 / Navigator Way signalised) and 14 (A390 / Malabar Road T-junction), which are shown to experience capacity constraints / significant impacts as a result of the proposed development. Potential measures for mitigation at these junctions have been identified for review and consideration by CC, in its role as Local Highway Authority (LHA).
- 1.7.3 In regard to Junction 17 (A39 / A390 / Falmouth Road Double Mini-Roundabout), it is recognised that there are capacity constraints, although this is an existing issue and not attributable to the proposed development, and the impact of the proposed development is not considered to be severe. It is understood that CC is seeking to address existing capacity constraints through a demand management strategy, the effects of which in terms of traffic reductions have not been accounted for in the traffic flow forecasts and associated capacity assessment. It is therefore likely that the junction will perform well within the levels reported in this assessment. It is on this basis and with regard to CC's strategy for the junction that the level of impact from the proposed development is not considered to require mitigation.
- 1.7.4 Overall, the residual transport effects of the proposed development are not considered to be severe. The traffic impact of the proposed development is therefore considered to be acceptable and in accordance with Paragraph 109 of the NPPF.



## 1.8 Policy Compliance

- 1.8.1 The development proposals are compliant with the policy framework outlined in **Chapter 4**. The specific elements of the development proposals and the policies to which they adhere are outlined in **Table 1-1**.

**Table 1-1: Development Policy Compliance**

Development Proposal	Policy
The development proposals are the subject of a TA. The TA has been prepared in consultation with Highway Authorities (CC and Highways England (HE)) and in accordance with relevant national and local guidance.	NPPF, Paragraph 111 Cornwall Local Plan 2010-2030, Policy 2
The development proposals are supported by a Framework Travel Plan (FTP), which provides the overarching mechanism for subsidiary Travel Plans (TPs) to be prepared for specific site occupation. This complies with the specific requirements outlined in the relevant policies.	NPPF, Paragraph 108a NPPF, Paragraph 111 Cornwall Local Plan 2010-2030, Policy 2
The application proposals have been subject to pre-application consultation with CC and HE as the highways authorities. These consultations have defined the scope of this TA and the application proposals, including the STS.	NPPF, Paragraphs 39-46
The access strategy includes the NAR, a primary transport route between West Langarth and Tresliske Hospital, with vehicular access onto the A390 at West Langarth, Richard Lander School and Penventinnie Lane. The access strategy provides safe, secure and convenient access for all users.	NPPF, Paragraph 108b Cornwall Local Plan 2010-2030, Policy 2 Emerging Truro and Kenwyn NPD, Policy H3
The development proposals will introduce key services and facilities within walking / cycling distance of the site, creating a sustainable community by reducing the overall travel demand at the development. Employment, education, leisure, retail and other community facilities will be available for both Langarth Garden Village and the surrounding area (with an appropriate level available to future residents during the early phases of the build-out).	NPPF, Paragraph 103-104 Cornwall Local Plan 2010-2030, Policy 2 Emerging Truro and Kenwyn NPD, Policy H3 Connecting Cornwall 2030, Policy 4
The proposed development provides a fully integrated network of footways and cycleways throughout the proposed development, which connect with existing off-site strategy. Full permeability of the entire development site and between the site and surrounding area will encourage the uptake of sustainable transport at and around the site.	NPPF, Paragraph 108a NPPF, Paragraph 110a NPPF, Paragraph 110d NPPF, Paragraph 110e Cornwall Local Plan 2010-2030, Policy 2 Emerging Truro and Kenwyn NPD, Policy H3
A new bus service will be provided to connect the proposed development with key destinations in Truro including RCHT, New County Hall (NCH), Truro Railway Station and the City Centre. This will be pump-primed during the build-out of the development to ensure that an appropriate and attractive service is available to users of the development at all phases.	
The proposed development includes an extension (600 spaces) to the existing Langarth P&R, increasing capacity to 1,809 spaces in total. This will enable increased usage of the P&R facility, reducing onward car travel to key destinations.	
The proposed development has been designed to enable charging of Electric Vehicles (EVs) (including e-bikes) in safe, accessible and convenient locations.	
The proposed development will seek to reduce vehicle movements by managing and limiting parking supply at the residential and office developments. An overarching parking strategy has been developed as part of the Design Codes for the proposed development, so as to establish a consistent approach to the parking provision and management of spaces throughout the development.	NPPF, Paragraph 105
The proposed development is forecast to result in localised traffic impacts at a small number of locations on the local highway network. However, options that suitably mitigate the impacts have been identified, for discussion with the LHA. There is no severe residual impact on the highway network.	NPPF, Paragraph 108c NPPF, Paragraph 109 The Strategic Road Network: Planning for the Future, Highways England (2015), Paragraph 101

## 1.9 Conclusions

- 1.9.1 This TA has outlined the anticipated impact of the proposed development of Langarth Garden Village on the study highway network. The development meets the requirements of the NPPF as follows:
- The proposed development provides a suitable mix of complementary land uses which will reduce the need for travel on the local highway network;
  - The access strategy facilitates safe and suitable access for pedestrians, cyclists and public transport, whilst ensuring efficient vehicle access;
  - The STS includes a package of measures that embed sustainability into the design of the development and support people's opportunity to travel sustainably; and
- 1.9.2 The cumulative residual impacts on the highway network of the proposed development are not considered to be severe, and therefore the traffic impact of the proposed development is considered to be acceptable in accordance with Paragraph 109 of the NPPF



## 2. Introduction

### 2.1 Context

- 2.1.1 AECOM was commissioned by CORMAC Solutions Ltd (herein referred to as 'CORMAC'), through a partnership arrangement for Cornwall Council (CC), to produce a Transport Assessment (TA) to accompany a planning application for a residential led mixed-use development close to Threemilestone, Truro, in Cornwall.
- 2.1.2 CC wish to *"create a new vibrant, well-connected community for between 8,000 and 10,000 future residents of Cornwall. This will include local character, strong services and integrated and accessible transport and green space."*<sup>1</sup>
- 2.1.3 The 240-hectare site is located to the north of the A390 road at Threemilestone and extends in an elongated fashion from West Langarth Farm in the west to Truro Golf Club in the east. The proposed development site is approximately 3km in length and ranges in width up to circa 800m wide at its central point. Truro City Centre lies 3.5km from the Maiden Green Roundabout, at the eastern extremes of the site. The A30 routes to the west, approximately 2km from the western extent. The site lies within the Kenwyn Parish boundary and abuts the Truro City Council boundary at the east. A site location plan is presented in **Figure 2-1**.
- 2.1.4 The description of the development, to be known as 'Langarth Garden Village, is as follows:
- "Hybrid planning application for Langarth Garden Village comprising;*
- A. A full planning application for construction of the Northern Access Road and associated access junction arrangements onto the A390, new junctions to the quiet lanes and associated infrastructure and earthworks and retaining and boundary features.*
- B. An outline planning application with all matters reserved to create a mixed use, landscape-led community comprising a phased development of up to 3,550 dwellings plus 200 extra care units and 50 units of student/health worker accommodation, including affordable housing; five local centres comprising local retail (E), offices (E), restaurants and cafes (E), drinking establishments (sui generis), hot food takeaway (sui generis), health and community facilities (F1 and E), a local care health centre (E), a blue light centre for emergency services (sui generis), up to two primary schools (F1), business and commercial floorspace (E), brewery / public house (sui generis) and associated areas of open space to include a suitable alternative natural greenspace as a strategic open space a community farm/allotments, public realm, renewable energy provision and energy centre, park and ride extension (of up to 600 spaces or 2.73 ha), cycle lanes, connections with the existing highway network including crossings of the A390, quiet lanes, drainage and associated infrastructure, including the demolition of buildings and structures, site clearance and associated earthworks.*
- C. The Application is accompanied by an Environmental Statement."*
- 2.1.5 The Northern Access Road (NAR) will connect to the A390 by way of a new roundabout junction west of the Langarth Park & Ride (P&R) site, and near Royal Cornwall Hospital Trust (RCHT) at its eastern extent.
- 2.1.6 The site is allocated for development in the emerging *Truro and Kenwyn Neighbourhood Development Plan* (NDP). Planning permission already exists for a number of developments on this site. CC has sought capital funding to acquire some of the land from individual developers and to act as 'master developer' to ensure that the whole site is master-planned comprehensively to provide for strong place making and a high level of sustainable accessibility both within the development, into Truro and to the south of the A390 into Threemilestone Village and Business Park / Industrial Estate.

<sup>1</sup> <https://www.cornwall.gov.uk/environment-and-planning/planning/langarth-garden-village/frequently-asked-questions/>



## 2.2 Development Vision

- 2.2.1 CC's aim is to *"to create a vibrant and distinctive new community at Langarth. It will have walkable neighbourhoods, connected by sustainable transport, generous and high quality green spaces. There will also be access to shops, facilities and meeting places. A place where people want to live, not just a series of housing estates."*<sup>2</sup>
- 2.2.2 CC has developed a coherent masterplan for the development which provides high quality homes, employment, leisure and community spaces and local retail and services, which works during the day and the night, which can be deliverable by CC taking control of the site and acting as 'master developer'. The proposed development has been phased such that the early phases of construction will include both residential and non-residential components of the scheme, such that an appropriate level of complementary facilities are available to future residents during the early phases of the build-out.
- 2.2.3 The scheme will provide a sustainable community, an attractive place to live and high quality homes serving Truro. CC has recently gained planning approval for an application for a temporary access arrangement to serve the initial phases of development; at the time of writing (October 2020), work on this commenced. This interim access, known as the Interim Link Road (ILR), was granted planning permission on 6<sup>th</sup> March 2020. It has been designed to facilitate construction of the early stages of the NAR while the West Langarth junction is being constructed. It has the capacity to serve up to 300 dwellings at which point it is anticipated it will change to a bus gate, thereby enhancing accessibility of the site by public transport.
- 2.2.4 In January 2019, CC declared a 'climate emergency' and set how Cornwall can reduce carbon emissions and work toward becoming carbon neutral by 2030. This was followed at a national level by the Government in May 2019, which pledged to reduce carbon emissions to zero by 2050. This produces a real challenge in response to which new developments can play an integral role. By way of providing a sustainable development with a significant commitment to reduce carbon emissions for both future and existing residents the carbon 'impact' of the development can be reduced. Removing the need to undertake journeys in the first place is vital and moving away from the traditional 'predict and provide' approach is required by all stakeholders.
- 2.2.5 The primary aim of the Langarth Garden Village is to provide a highly sustainable development where private vehicular trips are not always necessary in the first instance. The strong sustainability credentials of the development will be engrained from day one and the development includes a range of measures, and links to strategic initiatives provided by others (as detailed below) to help minimise the traffic effects of the development.

## 2.3 Sustainable Transport Strategy

- 2.3.1 The development proposal is accompanied by a comprehensive Sustainable Transport Strategy (STS), which is set out in full in **Chapter 9** but also coincides with interventions that are to be delivered by CC as part of the Truro Transport Strategy (TTS). The STS includes measures embedded in the development proposals as well as additional off-site mitigation. The STS adopts a hierarchal approach to transport mitigation, consistent with the requirements set out in Paragraph 110 of the *National Planning Policy Framework* (NPPF, 2019), which states that:

*"...applications for development should:*

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

<sup>2</sup> <https://www.cornwall.gov.uk/environment-and-planning/planning/langarth-garden-village/frequently-asked-questions/>



- c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.”*

## 2.4 The Housing Infrastructure Fund

- 2.4.1 CC has secured a Housing Infrastructure Fund (HIF) grant for £47.5m from the Ministry of Housing, Communities and Local Government (MHCLG), in order to deliver the key access road (the NAR) for the development. The proposed NAR will run parallel to the A390 and connect from West Langarth in the west, to RCHT and existing commercial / employment land in the east. It will open up the proposed Langarth development and provide much needed highway capacity to cater for the increased travel demand generated by the development.

## 2.5 Truro HIF SATURN Model

- 2.5.1 In order to complete the HIF Forward Funding Business Case for the NAR, a large amount of information was collected and used in order to develop a strategic SATURN traffic model which was used to inform the HIF process.
- 2.5.2 The strategic transport model, which was informed by the original Truro Town Framework model, was used for production of the Local Plan and includes key links in Truro and the A390 corridor. It was modified and re-validated to inform the Highways England (HE) A30 Carland to Chiverton Cross (CtCC) scheme. CC and HE agreed that the Stage 3 A30 CtCC highway model could be developed to appraise the NAR.

## 2.6 Pre-Application Consultation

- 2.6.1 The key principles of this TA were approved with the highway authorities following submission of a TA Scoping Note in January 2020. The January 2020 Scoping Note outlined the approach to assessment of the traffic impacts, as a result of the development and local improvements and initiatives undertaken by CC, as Local Highway Authority (LHA). This approach has been taken to the trip generation and distribution exercise as agreed with both authorities (HE and the LHA)
- 2.6.2 It was originally intended that the Truro SATURN HIF model would be used to demonstrate worst-case impact of the development, given the level of traffic generated by the development in the model was greater than that which would be generated in reality. HE was satisfied with this approach. However, the LHA raised some concerns in terms of the efficacy of this model in assessing the worst-case scenario, as this was not considered to effectively represent the actual impacts of the proposed development.
- 2.6.3 Subsequently, a further Scoping Note was issued in June 2020 and was discussed and accepted by the LHA. These further discussions with the LHA resulted in agreement that a revision to the approach would be assessed using a spreadsheet model, followed by traffic modelling, in order to accurately assess impacts and determine trigger points for infrastructure improvements or requirements. Whereas some of the principles within the January 2020 Scoping Note were accepted, such as the extent of the study area and method of trip generation, it was considered appropriate to amend the methodology for the traffic assessment, as set out in the June 2020 Scoping Note.
- 2.6.4 The June 2020 Scoping Note agreed to the methodology for the following:
- Development trip generation;
  - Development traffic distribution and assignment;
  - Assessment scenarios; and
  - Traffic impact assessment methodology.
- 2.6.5 This TA is produced on the basis of the matters discussed and agreed with the highway authorities.

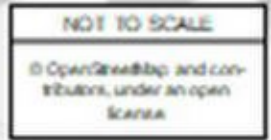


## 2.7 Document Structure

2.7.1 Following this introduction, the document is split into the following chapters:

- Chapter 3 – Site Context;
- Chapter 4 – Review of Relevant Policy and Guidance;
- Chapter 5 – Travel Trends Evidence;
- Chapter 6 – Local Highway Characteristics;
- Chapter 7 – Site Accessibility and Sustainability Review;
- Chapter 8 – Development Proposal;
- Chapter 9 – Sustainable Transport Strategy;
- Chapter 10 – Trip Generation, Distribution and Assignment;
- Chapter 11 – Assessment Scenarios;
- Chapter 12 – Traffic Impact Assessment; and
- Chapter 13 – Summary and Conclusions.



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## 3. Site Context

### 3.1 Existing Site

- 3.1.1 The proposed development land is a principally greenfield site and spans from the RCHT in the east towards West Langarth Farm heading westward. It lies adjacent to the main built-up area of Truro and to the north of the village of Threemilestone.
- 3.1.2 The site is predominantly used for agricultural uses and to the north, east and west is surrounded by further agricultural land. The site includes several farmsteads and some commercial uses. To the south of the site lies the A390 primary road and RCHT lies adjacent to the east of the site, which is approximately 3km from the centre of Truro.
- 3.1.3 The A390 is subject to varying speed limits depending on the nature of the highway and surroundings. In built-up areas it benefits from segregated footways and cycleways whereas in more rural settings the road is bounded by soft verges. The A390 currently acts as a physical and psychological barrier between the development site and Threemilestone, as well as further afield. The TA identifies measures to address this issue which will be addressed within phased approaches in the masterplanning.
- 3.1.4 The area to the east is located adjacent to largely residential properties with a primary school and other amenities including a post office and doctor's surgery, alongside open green spaces. Threemilestone itself is subject to a 30mph speed limit and there is adequate pedestrian footway provision with public transport bus service links. To the west of Threemilestone lies the Industrial Estate and Retail Park accessed by means of a four-arm traffic signal-controlled roundabout on the A390, opposite the Langarth P&R site.
- 3.1.5 To the west of the P&R, the area is predominantly rural in nature, made up mostly of agricultural fields and farm buildings with concealed entrances along the route leading to properties. The A390 becomes a two-way single carriageway at this point, before joining the A30 at Chiverton Cross. Subject to the national speed limit, it is flanked by grass verges and hedgerow with no pedestrian footways.
- 3.1.6 The dual carriageway to the east of the site leads to Truro College, Truro Leisure Centre, Richard Lander Secondary School and the residential area of Gloweth. These are connected to the A390 by way of a four-arm signalised roundabout with toucan crossing facilities on two of the arms and additional informal pedestrian / cyclist crossing points. The shared-use footway / cycleway and numerous bus stops along the route provide adequate accessibility for all users.
- 3.1.7 At the far east of the site, just prior to Truro Golf Club, is Treliske roundabout at the entrance to RCHT and the large Treliske industrial and trading estate and retail park. The eastern and western approaches are dual carriageway with the northern access to the Treliske area, a single carriageway route. The roundabout is controlled by full-time signals to help relieve traffic congestion at peak times and also includes a dedicated signalised bus gate to prioritise public transport, and which also enables emergency vehicle access to RCHT.

### 3.2 Planning History

- 3.2.1 A number of planning applications have been submitted and consented along the A390 corridor. **Table 3-1** presents some more detail on the applications for residential and retail-led development consented in the vicinity of the NAR.



**Table 3-1: Planning Applications**

Site Name	Development Quantum	Planning Reference(s)	Planning Status
West Langarth	Mixed-use proposal for retail (A1 – 5,574 sqm supermarket and five non-food (comparison) retail units with a floorspace of 4,645 sqm gross (3,716 sqm net)) with associated petrol filling station and car parking (providing space for mobile library); food and drink (A3 / A4 / A5 – 929 sqm (gross) floorspace) / day nursery (D1); residential (C3 – approximately 130 dwellings); community and sports facility (D1 / D2 – 500 sqm); public open space (including formal playing pitch provision); and other associated infrastructure (inclusive of linkage to consented Langarth / Stadium sites). [Means of access to be determined only].	PA14/08092 (Outline)	Consented on 11 <sup>th</sup> August 2016 (now lapsed).
Langarth	Mixed-use development comprising c.1500 dwellings, restaurant (A4), retail floorspace (A1), hotel (C1), employment floorspace (B1 / B8), care home (C2), park and ride extension (sui generis), primary school, community space (D1) and associated public open space and infrastructure (means of access determined only).	PA11/06124 (Outline)	Consented on 10 <sup>th</sup> July 2013
	Layout, appearance, landscaping and scale related to the construction of 494 dwelling houses (C3) and internal roads / paths alongside the creation of areas of public open space and realm, and landscaping (Phases 1 & 2).	PA15/11489 (Reserved Matters)	Consented on 20 <sup>th</sup> October 2016.
Pollard's Field	Residential development comprising of up to 78 dwellings (C3) with associated open space and infrastructure (means of access only to be determined).	PA14/03065 (Outline)	Consented on 11 <sup>th</sup> August 2016 (now lapsed).
East Langarth / Willow Green	Outline for 435 dwellings, nursing home, food store, petrol station, 1 form entry primary school, community hall, public house / restaurant, central component of the NAR (including vehicular / pedestrian / cycle details), public open space, service diversions and foul and surface water drainage infrastructure, ground remodelling works including moving of material on and off-site and demolition of existing buildings and detailed approval of access point from the A390.	PA14/10755 (Hybrid)	Consented on 25 <sup>th</sup> July 2016.
		PA16/07602 (Reserved Matters)	Consented on 2 <sup>nd</sup> November 2016.
		PA16/07603 (Reserved Matters)	Consented on 2 <sup>nd</sup> November 2016.
		PA16/07610 (Reserved Matters)	Consented on 2 <sup>nd</sup> November 2016.
Maiden Green	Outline for up to 515 dwellings (including extra care), school, employment space, convenience shop, community pavilion, infrastructure works, landscaping and public open spaces; district centre including supermarket, petrol station, retail units, community hall, restaurant / cafe uses, hotel, creche, medical centre, mobile library parking, parking and servicing; and in detail access from the A390, the NAR and connections to Penventinnie Lane within RCHT.	PA14/00703 (Hybrid)	Consented on 11 <sup>th</sup> August 2016.
Maiden Green PFS	Development of a petrol filling station including a new sales building, underground tanks, pump island / canopy, forecourt, car parking, landscaping, boundary treatments, drainage infrastructure, associated access arrangements (including A390 junction and associated pedestrian access) and associated infrastructure (including an artificial badger sett).	PA18/11022 (Full)	Consented 12 <sup>th</sup> September 2019
Stadium Cornwall	Erection of a 10,000 person stadium (D2) including ancillary office and hospitality floor space and hotel (C1) and infrastructure. Includes the provision of a 102 space car park to the south and west of the stadium to be accessed via the NAR. Proposals include a permanent emergency vehicle access point and pedestrian access between the Langarth P&R car park to the eastern side of the stadium.	PA11/06125 (Outline)	Consented on 12 <sup>th</sup> January 2012.
		PA12/09036 (Reserved Matters)	Consented on 4 <sup>th</sup> April 2013.
		PA19/05099 (Reserved Matters)	Consented on 28 <sup>th</sup> January 2020.
Hendra	Full planning permission for commercial phase (80-bed hotel, commercial units and car parking) and outline planning permission for residential development and associated car parking and servicing (all matters reserved).	PA12/11527 (Hybrid)	Consented on 21 <sup>st</sup> March 2013 (now lapsed).
		PA16/02385 (Reserved Matters for layout).	Consented on 9 <sup>th</sup> January 2017.
	Outline for Class A1 retail (6,708 sqm gross), car park, community hub (including A1 coffee shop, A3 restaurant and A3/A4 pub, B1 offices, D2, D1 crèche), pedestrian and cycle links	PA14/09345 (Outline)	Consented at appeal on 27 <sup>th</sup> October 2016.
		PA18/00474 (Reserved Matters)	Consented on 7 <sup>th</sup> December 2019.



Site Name	Development Quantum	Planning Reference(s)	Planning Status
	Full planning application for 78-bed hotel with integral bar / breakfast facility, B1 uses on the ground floor (up to a maximum of 345sqm), a Drive Thru restaurant (A3 / A5), pump station, access, parking, landscaping, infrastructure and associated works.	PA19/07921 (Full)	Currently pending consideration.



- 3.2.2 **Table 3-1** includes numerous consents for residential and non-residential development that have not yet lapsed. These include consents relating to Langarth (References: PA11/06124 and PA15/11489), East Langarth / Willow Green (References: PA14/10755, PA16/07602, PA16/07603, PA16/07610) and Maiden Green (Reference: PA14/00703). Together, the consents at these three sites provide for circa 2,500 dwellings in total. Whilst this is below the level of residential development included within the proposed development, it should be highlighted that these consents include for a significantly higher level of retail development (90,963sqm) when compared with the proposed development (3,560sqm).
- 3.2.3 Retail development typically carries a trip profile that results in a higher level of traffic generation on weekends. As such, the traffic impact associated with the existing consents is likely to be significantly higher on weekends than those associated with the proposed development. Furthermore, the existing consents risk being more car-dependent given they would not have the benefit of the full package of measures being delivered under the STS.

### 3.3 Proposed On-Site Transport Infrastructure

#### The Northern Access Road

- 3.3.1 CC was successful in securing £47.5million from the HIF towards the costs of delivering the NAR. The HIF is made available to local authorities to unlock housing sites which are constrained by significant infrastructure requirements.
- 3.3.2 The Threemilestone area was designated as a one of nineteen new garden communities on 28<sup>th</sup> June 2019 by the MHCLG. At this point the proposals were known as the Langarth Garden Village.
- 3.3.3 To facilitate a coordinated approach to delivery, CC commissioned the Langarth Garden Village masterplan be prepared for the urban extension to Truro including the NAR alignment. A design report, for the NAR, will be submitted separately.
- 3.3.4 The NAR is integrated into the proposed development and is a key element of the scheme. All transport planning implications will be assessed within this TA.
- 3.3.5 Delivery and design of the NAR has been subject to considerable assessment and discussion during the HIF process. A set of high-level design objectives have been developed by the design team for the NAR as follows:
- The selected design speed for the NAR is 30kph (which corresponds with a 20mph speed limit). This will be controlled with a combination of layout and alignment constraints;
  - The NAR is to carry approximately 30% of the A390 traffic flows between West Langarth and Treiske Roundabout, following development of the Langarth Garden Village Development;
  - The NAR is to be direct, to be attractive as a commuter route to key destinations such as the hospital, but with slowing features through the housing developments;
  - The typical NAR cross section is to be 19.6m wide. With reference to the Design and Access Statement (DAS), this will comprise a 6.5m carriageway (i.e. two 3.25m wide lanes), a 2m wide footway on the south side (separated from the carriageway by a 1m wide soft landscape buffer, interspersed with resting points), and a 3.4m wide segregated cycle route and 2m wide footway on the north side (both separated from the carriageway by a 4.7m wide (subject to variations) landscape buffer for more substantial planting and Sustainable Drainage Systems (SuDs));
  - The NAR should provide an inclusive area usable by all;
  - The route should be easy to understand and navigate;
  - The finished scheme should be constructed of quality materials;
  - The scheme should support Cornwall's Environmental Growth Strategy for a low carbon economy, providing local access to nature from the A390 corridor;
  - The NAR, and in particular the West Langarth junction should provide an attractive gateway that signals to the motorist the change between rural and urban areas;

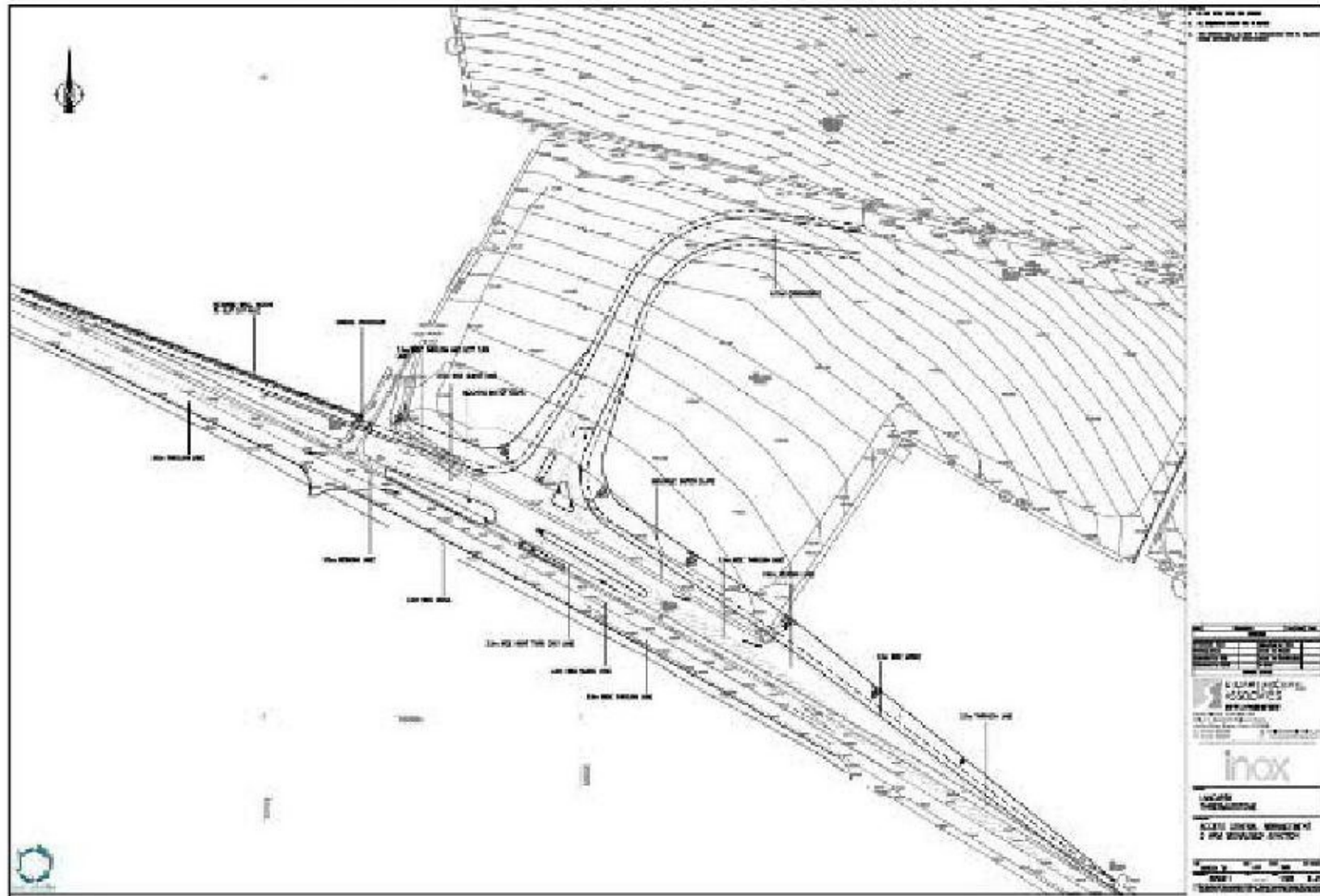


- The scheme should provide at-grade crossing facilities and usable cycling and walking infrastructure that is, where possible, separated by attractive landscaping; and
- There will be cycle priority at side roads.

#### Interim Link Road

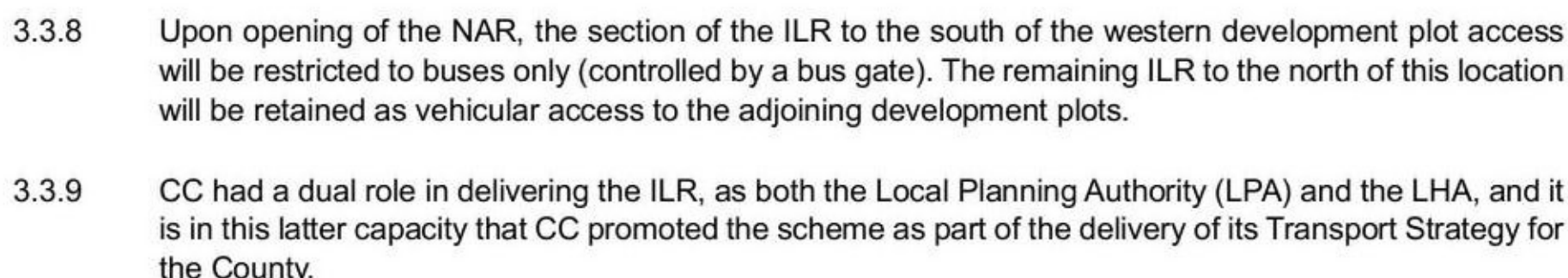
- 3.3.6 The original 'Langarth' outline planning application (Reference: PA11/06124) included a new junction on to the A390, as shown in **Figure 3-1**. The junction was designed as an all-movement signalised arrangement.

**Figure 3-1: Signalised Junction to Langarth (Reference: PA11/06124)**



- 3.3.7 Further assessment of the ILR has been undertaken culminating in planning permission being granted (subject to conditions) on 6th March 2020 (Reference: PA20/00009), for an alternative ILR, which links the site to the A390. It will connect to the A390 by way of an all-movement priority junction. At time of writing (October 2020), work on this junction has commenced. The primary purpose of the ILR is to facilitate early construction on the Langarth site in advance of the West Langarth Junction, which will ultimately be the principal access. It has been demonstrated that the ILR can provide highway capacity sufficient to facilitate the occupation of up to 300 dwellings, should the West Langarth junction be delayed. The current scheme is shown in **Figure 3-2**.



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3.4.1 The A390 corridor has been subject to a number of alterations and enhancements in recent years, the most recent package of measures being the Truro Western Corridor package of work. It was delivered in 2018 under the Growth Deal (a central government fund provided to Local Enterprise Partnerships for projects that benefit the local area and economy) with the aim to improve the flow of traffic, support the approved developments and encourage sustainable transport. The work consisted of the following:

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- Prepared for: CORMAC Solutions Ltd



of 24-hour signals to include bus priority, road widening and revised lane markings. The Treliske section of the scheme opened in early 2018.

- Walking and Cycling Measures – Sections of footway / carriageway have been improved to provide shared-use paths and crossing points for cyclists and pedestrians throughout the A390 corridor starting at Maiden Green in the west through to Dalvenie Roundabout at New County Hall (NCH). The walking and cycling section of the scheme was completed in early 2018.

## 3.5 Truro Transport Strategy

### Truro Transport Strategy (2012)

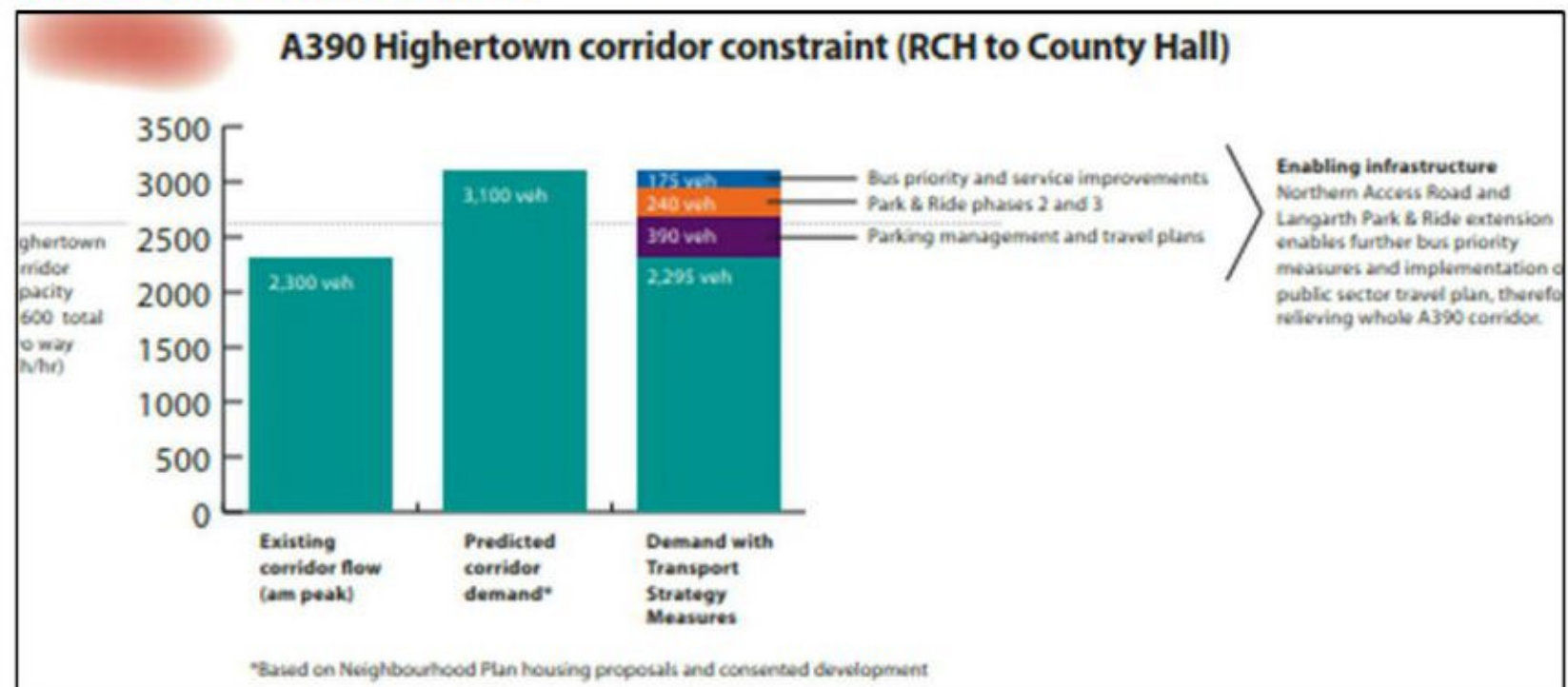
- 3.5.1 The former TTS was approved in 2003 and was developed through the previous Local Transport Plan (LTP) period (2006 to 2011). This strategy included a number of key objectives including the establishment of a three phase P&R system, the Truro Local Distributor Road (TLDR) and improvements for public transport, walking and cycling across the city. However, due to the changes in government policy and infrastructure funding since this period, there was a need to review and revise the existing transport strategy.
- 3.5.2 In 2012, an update to the TTS was published and approved by cabinet. The updated TTS identified the measures required to accommodate future development across the city by producing an integrated transportation and land-use strategy to encourage sustainable travel and provide a coherent approach. A range of schemes and improvements have already been delivered removing 425,000 vehicles trips per year off the local highway network since 2012. The TTS (2012) had the following aims:
- To increase the proportion of travel into and out of Truro by sustainable modes;
  - To increase walking and cycling;
  - To reduce the need to travel; and
  - To ensure that the transport network operates effectively with future development growth.
- 3.5.3 Many of the aspirations of the original strategy have been delivered, including Tregurra P&R, Threemilestone bus gate, Coosebean cycle route, Threemilestone and Treliske roundabout signalisation and Travel Plans (TPs) for RCHT and Truro and Penwith College.

### Truro Transport Strategy – Refresh

- 3.5.4 In the eight years since its approval, the overriding principles of the TTS (2012) are more relevant than ever, but much has also changed in that time – most significantly CC's commitment to be carbon neutral by 2030, alongside the delivery of new transport provision for Truro and opportunities emerging from new technology. A number of projects identified in the 2012 version have now been completed and further projects have been identified which are in the process of being documented in an updated version.
- 3.5.5 CC is therefore currently working to refresh their strategy to provide a vision for the future development of transport related interventions. The strategy refresh will include public health and environmental objectives so that it provides a holistic vision for the future. The refresh of this strategy will undoubtedly have an impact on the transport network across Truro and its surrounding area.
- 3.5.6 An extract from the emerging TTS refresh document, reproduced at **Figure 3-3**, shows that future traffic demand is forecast to increase from 2,300 vehicles per hour to 3,100 vehicles per hour on the A390 Hightown corridor. This identifies that traffic demand can be reduced to existing levels by way of implementing numerous emerging strategy options, including:
- NAR;
  - Langarth P&R extension;
  - Associated bus priority measures; and
  - Public Sector TP.



Figure 3-3: A390 Traffic Demand



3.5.7 The assessment therefore demonstrates that the TTS could accommodate future development growth associated with the Local Plan within Truro, whilst maintaining the efficient operation of the Truro transport network. The study recommends that the TTS should consist of the following measures:

- Eastern and southern P&Rs and associated junction improvements;
- Extension to the existing Langarth P&R site and increased bus capacity;
- NAR;
- Bus service frequency improvements from key Cornish towns;
- Extended inbound bus lanes on the A390;
- Controlled (residents) parking zones in areas close to Truro City Centre;
- Public Sector TP measures;
- Truro walking / cycling network improvements; and
- Junction improvements at Threemilestone Roundabout, Treliske Roundabout, Dalvenie Roundabout, Arch Hill junction, A30 Chybucca junction.



## 4. Review of Relevant Policy and Guidance

### 4.1 Introduction

- 4.1.1 Almost every policy and associated guidance, both at national and local level, is striving towards achieving sustainable development in all locations. Decisions on planning applications must be 'plan led' and take a 'forward looking' approach and identify where sustainable credentials are being driven from the outset of the development process and not, as may been undertaken previously, rely on 'predict and provide'.
- 4.1.2 Latest policies require a new approach to development and all reasonable efforts must be made to ensure that sustainable travel options are engrained into development proposals from the start. This chapter reviews a range of the current national and local policies that are considered appropriate to the successful determination and delivery of this highly sustainable development proposal.

### 4.2 Climate Emergency

- 4.2.1 In May 2019, the Government declared a 'climate emergency' and formed the Committee on Climate Change (CCC) who's role was to advise the Government on emission targets and report to Parliament on progress made in reducing greenhouse gas (GHG) emissions. The CCC recommended a zero-emission target by 2050:
- "A net-zero GHG target for 2050 will deliver on the commitment that the UK made by signing the Paris Agreement. It is achievable with known technologies, alongside improvements in people's lives, and within the expected economic cost that Parliament accepted when it legislated the existing 2050 target for an 80% reduction from 1990. However, this is only possible if clear, stable and well-designed policies to reduce emissions further are introduced across the economy without delay."*
- 4.2.2 The CCC website reports that:
- "UK emissions were 44% below 1990 levels in 2018. The first (2008-12) and the second carbon budget (2013-17) have been met and the UK is on track to meet the third (2018-22) carbon budget, but is not on track to meet the fourth, which covers the period 2023-27."*
- 4.2.3 Reaching net-zero emissions requires an annual rate of emissions reduction (15 MtCO<sub>2</sub>e per year, 3% of 2018 emissions) that is 50% higher than under the UK's previous 2050 target and 30% higher than achieved on average since 1990. This is an indication of how substantial the step up in action must be to cut emissions in every sector.
- 4.2.4 The CCC has developed indicators to track emissions, progress in low-carbon investments, and the development of government policies. This allows early identification of any areas where targets could be missed. Some of the indicators tracked include:
- Emissions in an average unit of electricity and levels that could be achieved through changes in use of existing power infrastructure;
  - Size of onshore and offshore wind farms at various stages of the project cycle;
  - Emissions from new cars and the rate of development in Electric Vehicle (EV) market;
  - Insulation of lofts and walls and boiler upgrades, including moves to low-carbon heat such as ultra-efficient heat pumps; and
  - Progress of government policies such as grants for EVs and Electricity Market Reform.
- 4.2.5 In line with this, CC declared a 'climate emergency' in January 2019 and committed to work toward becoming carbon neutral by 2030. Furthermore, CC has committed to the 'UK100 Cities' pledge to achieve 100% clean energy by 2050.
- 4.2.6 Delivery of sustainable development, with the reduction in car travel, will provide a key part in the reduction of emissions providing sustainable travel choices for future, and nearby existing, residents. Promotion towards negating the need for journeys at all is paramount in development consideration.



## 4.3 National Policy and Guidance

### National Planning Policy Framework (February 2019)

- 4.3.1 The revised NPPF was published in February 2019 by the MHCLG, replacing the previous version published in July 2018. This sets out the Government's planning policies for England and how these are expected to be applied at a local level. It provides a framework within which locally-prepared plans for housing and other development can be produced.
- 4.3.2 The original NPPF, produced in 2012, brought together around 1,000 pages of planning policy and guidance into a single document. Critically, the document established a *"presumption in favour of sustainable development."*
- 4.3.3 The revised NPPF *"makes a number of structural changes, in particular dividing the document into clear chapters; incorporates policy proposals on which the Government has previously consulted; and incorporates additional proposals on which this document is consulting."* The presumption in favour of sustainable development remains at the heart of the NPPF.
- 4.3.4 The NPPF highlights the importance that transport infrastructure and transport related policies have in facilitating sustainable development and promoting wider health and sustainability objectives. 'Section 9 – Promoting sustainable transport' outlines the key transport policy considerations. It states that transport issues should be considered at the earliest opportunities when planning development so that:
- *"The potential impacts of development on transport networks can be addressed;*
  - *Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage are realised – for example in relation to the scale, location or density of development that can be accommodated;*
  - *Opportunities to promote walking, cycling and public transport use are identified and pursued;*
  - *The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
  - *Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places."*
- 4.3.5 Paragraph 103 states that *"significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes."* It also notes that the opportunities to maximise sustainable transport solutions will vary between urban and rural settings, which should be considered when plan-making and decision-making.
- 4.3.6 Paragraph 104 outlines the requirements for transport planning policies. Planning policies should:
- *"Support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*
  - *Be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*
  - *Identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;*
  - *Provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);*
  - *Provide any large-scale transport facilities that need to be located in the area, and infrastructure and wider development required to support their operations, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and*



- *Recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over times – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy."*
- 4.3.7 In relation to development proposals, the NPPF (Paragraph 108) requires determining authorities to ensure that:
- *"Appropriate opportunities for sustainable transport modes can be – or have been - taken up, given the type of development and its location;*
  - *Safe and suitable access to the site can be achieved for all users; and*
  - *Any significant impacts from the development on the transport network (in terms of capacity or congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*
- 4.3.8 Paragraph 109 states *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*
- 4.3.9 Paragraph 111 states that all development expected to generate significant amounts of movement should be required to provide a TP and the planning application should be informed by a Transport Statement (TS) or TA.
- 4.3.10 It is emphasised that development should give priority to pedestrian and cycle movements, address the needs of people with disabilities and reduced mobility in relation to all modes of transport, create places that are safe, secure and attractive, and designed to enable charging of plug-in and ultra-low emission vehicles in safe, accessible and convenient locations.
- 4.3.11 Importantly for assessing transport impacts of proposals now explicitly refers to highway safety as well as capacity and congestion. This change makes it clear that *"designs should prioritise pedestrian and cycle movements, followed by access to high quality public transport (so far as possible) as well as to reflect the importance of creating well-designed places."*
- 4.3.12 Within this context, applications for development should still give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas, facilitate access and the use of high-quality public transport, address the needs of people with disabilities and reduced mobility.
- 4.3.13 It is important that development proposals create places that are safe, secure and attractive, minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards. Developments should also facilitate the efficient delivery of goods, and access by service and emergency vehicles and also be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

#### Planning Practice Guidance (March 2014)

- 4.3.14 On 6th March 2014, the Department for Communities and Local Government (DCLG) launched the *Planning Practice Guidance* (PPG) web-based resource. This enabled all planning guidance to be provided in a single on-line portal which providing links with NPPF. The PPG contains guidance on TPs, TAs and TSs in relation to decision taking processes for local authorities. The section aims to provide advice on when TAs and TSs are required, and what they should contain but is not as prescriptive on the detail as the former Department for Transport (DfT) guidance (*Guidance on Transport Assessments*, 2007), now withdrawn.
- 4.3.15 As per the previous DfT guidance, the scope and level of assessment required to support development proposals will vary between sites and in accordance with the NPPF, in particular Paragraph 32, the scale of assessment will be dependent on the amount of traffic generated by the development proposal, as well as taking into account the local highway conditions.
- 4.3.16 The PPG puts the emphasis on to the relevant highway authorities and transportation professionals to agree what evaluation is needed in each instance on a case by case basis.



- 4.3.17 The PPG states that *“maximum parking standards can lead to poor quality development and congested streets”* and suggests that local planning authorities to *“seek to ensure parking provision is appropriate to the needs of the development and not reduced below a level that could be considered reasonable.”*

#### **The Strategic Road Network – Planning for the Future (September 2015)**

- 4.3.18 This document describes HE's approach to engagement with the planning system, as well as the issues that can arise during consideration of draft planning documents and planning applications. It also provides advice on information that HE would like to see included in a planning proposal.

#### Enabling Growth through a Safe and Efficient Road Network

- 4.3.19 The primary function of the SRN is to facilitate the safe and efficient movement of goods and people. The document states that development proposals are likely to be wholly acceptable if *“they can be accommodated within the existing capacity of a section of the SRN”* or *“they do not increase demand for use of a section that is already at full capacity”*. Where the Circular (02/2013 – discussed below) tests are not satisfied, additional assessments should:

- *“Demonstrate how the proposals will reduce the need to travel, especially by car;*
- *Demonstrate how the proposals will improve accessibility by all modes of travel and influence travel behaviours;*
- *Assess the likely impact of residual trips (i.e. after measures above have been considered); and*
- *Identify appropriate and proportionate mitigation measures, and ensure that what is proposed promotes sustainable transport outcomes and avoids unnecessary works to the SRN.”*

#### Assessment of Development Impact

- 4.3.20 Paragraph 100 states *“the overall forecast demand on the SRN and surrounding local road network should be assessed and compared to the ability of the existing network to accommodate traffic.”* For developments which will be brought forward in phases, assessments should be carried out for:
- The development and construction phase;
  - The opening year, assuming full build out and occupation; and
  - Either a date ten years after the date of registration of the associated planning application or at the end of the Local Plan period (whichever is the greater).

#### Travel Plans and Demand Management

- 4.3.21 Paragraph 103 discusses the requirement for development promoters to put forward initiatives that reduce the traffic impact of proposals by supporting the promotion of sustainable transport and the development of accessible sites.
- 4.3.22 Paragraph 106 states that *“by the inclusion of existing development within the provisions of a travel plan associated with the new development, it may be possible to free-up additional capacity within the road network to offset the demand generated by a proposed new development, increasing the likelihood of an assessment that the additional development can be accommodated.”*

#### **Circular 02/2013: The Strategic Road Network and Delivery of Sustainable Development (September 2013)**

- 4.3.23 This document was published by the DfT and sets out the way in which HE (formerly the Highways Agency) plans to engage with *“communities and the development industry to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic road network.”*
- 4.3.24 This document replaces the policy set out in DfT Circulars 02/2007 (*Planning and the Strategic Road Network*) and 01/2008 (*Policy on Service Areas and other Roadside Facilities on Motorways and All-purpose Trunk Roads in England*).



- 4.3.25 Importantly, the documents states that, where development proposals are consistent with an adopted Local Plan, the (as was) Highways Agency does not anticipate the need for engagement in a full assessment process at the planning application stage. In such circumstances, considerations will normally be limited to the agreement of the details of the transport solution, including any necessary mitigation measures, and to ensuring that the transport impacts are included in the overall environmental assessment provided to the local planning authority, rather than the principle of the development itself.
- 4.3.26 If the proposals are not consistent with the adopted Local Plan then the document recommends that a *“full assessment of their impact will be necessary, which will be based on the performance and character of the strategic road network as determined by the presumption that the Plan proposals will be fully implemented.”*
- 4.3.27 The document states that:
- “The Highways Agency (as was) will provide the local planning authority or other relevant consenting body with its assessment of the transport impact, as generally derived from a Transport Assessment or Transport Statement incorporating a Travel Plan as required in the National Planning Policy Framework, produced by the promoter of the development concerned in line with current Department for Transport guidance or on a basis otherwise agreed with the Highways Agency. Where appropriate, conditions may be agreed to offset any unacceptable impacts that may be identified through the assessment process.”*
- 4.3.28 The document sets out how HE expects proposals to be assessed, and their expectations in terms of sustainable travel promotion. It is expected that *“the promoters of development put forward initiatives that manage down the traffic impact of proposals to support the promotion of sustainable transport and the development of accessible sites. This is particularly necessary where the potential impact is on sections of the strategic road network that could experience capacity problems in the short or medium term. Where the overall forecast demand at the time of opening of the development can be accommodated by the existing infrastructure, further capacity mitigation will not be sought.”*
- 4.3.29 In delivering economic growth at local level the document states that, *“it is essential that the wider economic needs of the country are not compromised. New accesses to busy high-speed strategic roads lead to more weaving and turning manoeuvres, which in turn create additional risk to safety and reduce the reliability of journeys, resulting in a negative impact on overall national economic activity and performance.”*

#### Manual for Streets (March 2007)

- 4.3.30 *Manual for Streets* (MfS), published by the DfT, gives advice for the design of residential streets in England and Wales. This document is based upon the requirement that streets should not be designed just to accommodate the movement of motor vehicles – a prime consideration is that they meet the needs of pedestrians and cyclists.
- 4.3.31 The key recommendation within MfS therefore is that increased consideration should be given to the ‘place’ function of streets. This function is essentially what distinguishes a street from a road, where the main purpose is to facilitate movement. Streets have five principal functions in all. In addition to those of place and movement, streets need to allow for access, they often need to provide room for parking, and they must accommodate drainage, utilities and street lighting.

#### Manual for Streets 2 (September 2010)

- 4.3.32 *Manual for Streets 2: Wider Applications of the Principles* (MfS2) was published by the Chartered Institution of Highways and Transportation (CIHT) as a companion guide to MfS1. MfS2 expands the principles from MfS1 to busier streets and non-trunk roads.
- 4.3.33 In regard to shared space schemes, the DfT wrote to LHAs in July 2018 advising of the publication of the *Inclusive Transport Strategy* (published in 2018) and requested that LHAs pause the introduction of new shared space schemes. This is due to the principle of shared space areas potentially conflicting with Paragraph 110 (a, b, c) of the NPPF. The DfT has provided some clarification regarding the extent of the limit to use of shared space, stating that it applies to areas of high traffic flow and not to housing developments.



### Gear Change: A Bold Vision for Cycling and Walking (July 2020)

4.3.34 This report, published by the DfT, set out the Government's plans for cycling to play a bigger part in transport systems from herein, noting that there must be a significant increase in cycling in not only towns and cities, but also everywhere else. It identifies a clear ambition to make cycling, and walking, the natural choice for short journeys or as part of a longer journey with supporting objectives to increase cycling and walking levels. This is centred around four key themes:

- Better streets for cycling and people;
- Putting cycling and walking at the heart of transport, place-making, and health policy;
- Empowering and encouraging local authorities; and
- Enabling people to cycle and protecting them when they cycle.

### Local Transport Note 1/20 – Cycle Infrastructure Design (July 2020)

4.3.35 The DfT issued this Local Transport Note (LTN) in July 2020 following the launch of the Government's plans for cycling.

4.3.36 LTN 1/20 confirms the commitment to boost design standards and improve safety and sets out the much higher standards that are now expected to be delivered. The guidance supports the delivery of high-quality cycle infrastructure and replaces LTN 2/08 to ensure that it reflects the latest developments in cycle infrastructure design, including electric bikes (e-bikes). It also replaces LTN 1/12 (*Shared Routes for Pedestrians and Cyclists*).

4.3.37 The guidance includes an overarching set of summary principles that are expected to inform scheme design, to be checked by a new inspectorate before funding is agreed, and on completion to ensure compliance.

4.3.38 Inclusive cycling is an underlying theme throughout so that people cycling of all ages and abilities are considered. The design options include segregation from traffic, measures for cycling at junctions and roundabouts, and updated guidance on crossings, signal design and the associated traffic signs and road markings. Furthermore, to receive Government funding for local highways investment where the main element is not cycling or walking, there will be a presumption that schemes must deliver or improve cycling infrastructure to the standards in the LTN, unless it can be shown that there is little or no need for cycling in the particular highway scheme.

## 4.4 Local Policy and Guidance

### Cornwall Local Plan 2010-2030 (November 2016)

4.4.1 The *Cornwall Local Plan* (referred to herein as the 'Local Plan') was formally adopted on 22nd November 2016. It provides a positive and flexible overarching planning policy framework for Cornwall, covering the period up to 2030.

4.4.2 The Local Plan is intended to help deliver the vision and objectives of 'Future Cornwall', which is the sustainable community strategy. The underlying principles of the strategy seek to manage future development to ensure all communities in Cornwall have an appropriate balance of jobs, services, facilities and homes.

4.4.3 The Local Plan is supported by other documents including Neighbourhood Development Plans (NDPs), Development Plan Documents (DPDs) and Supplementary Planning Guidance (SPG).

4.4.4 Transport and accessibility policy directions are detailed within Policy 2, which states that all developments should:

*"Provide safe and suitable access to the site for all people and not cause a significantly adverse impact on the local or strategic road network that cannot be managed or mitigated. For major developments to ensure a resilient and reliable transports system for people, goods and services, development proposals should:*



- *Be consistent with, and contribute to, the delivery of Connecting Cornwall 2030, Cornwall's Local Transport Plan or any subsequent LTPs;*
- *Locate development and / or incorporate a mix of uses so that the need to travel;*
- *Locate larger developments which attract a proportionally larger number of people in the city and main towns or locations which are highly accessible by public transport. Any proposals which do not accord with this will require significant justification and provide clear transport benefits;*
- *Be designed to provide convenient accessible and appropriate cycle and pedestrian routes, public transport and road routes within and in the immediate vicinity of the development;*
- *Be accompanied by an effective TP that delivers hard and soft measures to support new occupants in adopting sustainable travel habits;*
- *Safeguard land for the delivery of strategic transport opportunities including land around existing facilities to allow for expansion and use for future sustainable modes of travel e.g. closed branch rail lines and links to the Isles of Scilly; and*
- *Provide public transport solutions including P&R where there is evidence that it will remove traffic from the highway network, is economically viable and that which accord with the appropriate transport strategy for the area."*

#### Truro and Kenwyn Neighbourhood Development Plan (November 2016)

- 4.4.5 The Truro and Kenwyn NDP is a plan produced by and for the community that makes sure that new development in Truro and Kenwyn is suitable and beneficial. The current NDP was adopted in 2016. This is currently being updated, with a draft NDP review document due to be formally submitted to CC in Autumn 2020 for consideration.
- 4.4.6 The NDP covers a wide range of subjects including environment, promoting sustainable development, improving building standards, greenspace provision and seeking to retain the character of the rural edges of Truro, Threemilestone and Shortlanesend.
- 4.4.7 In terms of transport, the NDP states that sustainable transport choices should be promoted, including walking, cycling and public transport as well as safeguarding rail land for future increases in services and facilities.
- 4.4.8 Policy H3 of the emerging NDP refers to the development of Langarth Garden Village, setting out the key principles for sustainable development to be achieved by the masterplan. In terms of transport, these include:
- *"The provision of a high quality and logical movement hierarchy, including the primary transport route (known as the 'Northern Access Road' (NAR)) as shown indicatively on the proposals map that runs between West Langarth and Treiske Hospital, with new vehicular junctions onto the A390 limited to those at West Langarth, the junction for Richard Lander School and Penventinnie Lane. The NAR route shall be designed to provide a high quality, tree lined thoroughfare, designed for low traffic speeds and providing a public transport, and segregated, safe cycle and pedestrian friendly environment and incorporate sustainable surface water drainage features / systems throughout its length. Priority, particularly at junctions from the NAR and on the remainder of the network must be given to cyclists and pedestrians, designed to provide easy to use, direct crossings and routes that follow safe desire lines";*
  - *"The development of a series of coherent neighbourhoods, with a mix of uses, tenures and housing sizes and adequate parking provision to be connected by a planned network of green infrastructure and active travel routes. Development shall make targeted and appropriate use of higher densities to create centres and hubs for public transport and community facilities across the site. The creation of green gaps across the Langarth site between areas of development should create and contribute to a coherent and functional network of green infrastructure"; and*
  - *"Plan for early implementation of key infrastructure including (but not limited to) strategic movement routes, green infrastructure networks, schools and improved access and accessibility throughout and between the site and to services and facilities within the development area and to support and in Threemilestone, Gloweth, Highertown and Truro city centre by non-motorised transport, including protection to Quiet Lanes to reduce attractiveness to cars/rat running. Strong, continuous*



*and safe routes shall be formed for pedestrians and cyclists north/south and across the A390 by 'supercrossings' that support and link existing communities at Threemilestone and Gloweth through the sites to the surrounding countryside, as well as strong, safe, traffic free tree lined spines from west to east using wherever possible remnant green lane networks and utilising contours. The plans need to prioritise connections beyond the site, particularly to the city centre, by bus, walking and cycling."*

#### Climate Change: Development Plan Document (August 2020)

- 4.4.9 In January 2019, CC declared a 'climate emergency' in recognition of the need to take urgent action. CC is preparing a Climate Change DPD which will set out how Cornwall can reduce carbon emissions and work toward becoming carbon neutral by 2030. The Climate Change DPD is part of CC's wider proposals to plan positively for measures to address and mitigate climate change and strengthen policies of the Local Plan. CC intend to submit the plan for examination in 2021. The Climate Change DPD will cover the period up to 2030, reflecting the plan period of the *Local Plan: Strategic Policies 2010-2030*.
- 4.4.10 A pre-submission document (*Climate Emergency Development Plan Document: Draft Policies Consultation*) was consulted on in August 2020. The preparation of this document was informed by a series of topic papers covering transport alongside other matters such as:
- Renewable energy generation;
  - Improving building standards and energy efficiency;
  - Coastal change and flooding;
  - Natural climate solutions;
  - Town / city centre density and vitality; and
  - Agriculture and rural development.
- 4.4.11 To ensure new developments support sustainable transport and contribute to reducing emissions a number of new policies are proposed:
- Sustainable transport which aims to reduce the need to travel by car, encourage a hierarchy of modes (walking, cycling, public transport) through active travel and the design of new development;
  - Parking which sets out the Council's expectations in terms of parking provision including for non-vehicular modes, EV charging points and design of parking areas; and
  - Safeguarding of transport infrastructure sites and land is designed to ensure that land required for the expansion of the transport system or walking / cycling routes which have the potential to contribute to a cohesive travel network is safeguarded.

#### Cornwall Design Guide (March 2013)

- 4.4.12 The *Cornwall Design Guide* was adopted by CC on the 13<sup>th</sup> March 2013. In terms of transport and accessibility, the document includes the following design principles:
- Improve access to key services and facilities by reducing the need to travel and by providing safe sustainable travel choices; and
  - To reduce traffic congestion and minimise related greenhouse gas emissions.
- 4.4.13 CC has prepared a *Draft Cornwall Design Guide* that refreshes the 2013 document to boost design quality. The guide puts particular emphasis on environmental growth, health and well-being, inclusivity, climate change and resilience. The guide has been subject to public consultation with adoption programmed for 2021. To partner this guide, the Council has also produced a *Draft Streetscape Design Guide*, which focuses on developing high quality streets and reducing the reliance and dominance of the private car.

#### Connecting Cornwall 2030 (March 2011)

- 4.4.14 *Connecting Cornwall: 2030* is the LTP for Cornwall and covers a period of 20 years. The LTP is the key strategic tool through which the Council exercises its responsibilities for planning, management and development of transport in Cornwall, for the movement of both people and goods.



4.4.15 The vision of the LTP is:

*“Transport in Cornwall will be excellent. Our transport system will connect people, communities, businesses and services in a way that is reliable, efficient, safe, inclusive and enjoyable.”*

4.4.16 Transport in Cornwall will:

- Respond to the challenges of climate change by ensuring we have a resilient transport network, reduce our reliance on fossil fuels in recognition of peak oil and support communities to live locally;
- Support economic prosperity and raise income levels by improving transport links for business and access to employment, education and training;
- Respect and enhance our beautiful natural and built surroundings through the way in which we travel and deliver transport;
- Encourage healthy active lifestyles by providing people with the opportunity to walk and cycle;
- Ensure our communities are safer and more enjoyable places to live and improve individual wellbeing by reducing the negative impacts of transport; and
- Provide equal opportunities for everyone regardless of age, postcode, income level or ability, to feel safe and access the services they need.

4.4.17 New roads will only be considered where it can be demonstrated there is a strategic need that meets the priorities for Cornwall or where they are essential to improve access to a town's economic sustainability.

4.4.18 The LTP also supports the provision of local services and facilities to enable people to live locally, within Policy 4, and states in Policy 5, that *“we will use the local and strategic development control processes to ensure that development is planned, delivered and managed to reduce the need to travel.”*

4.4.19 CC sets out the schemes which it intends to deliver between 2015 and 2019 and the associated funding for each of the schemes in its *Implementation Plan 2015-2019* (April 2015). As part of the programme, indications are given as to the programme post-2019 which includes the NAR. The description is for a *“new strategic road link, providing access to the hospital and relief to A390 and access through whole development.”* The outcomes given are that the scheme *“Supports Connecting Cornwall: 2030 goals and objectives and Local Plan Growth”*, with a cost of £24m listed to be funded by developers.

**Truro Local Cycling and Walking Infrastructure Plan (February 2020)**

4.4.20 The primary vision of the Local Cycling and Walking Infrastructure Plan (LCWIP) is to *“create a place where walking and cycling becomes the preferred way of moving around the city.”* The LCWIP concept was introduced in the Government's *Cycling and Walking Investment Strategy* (CWIS) in 2017 with key outputs identified as providing:

- *“A network plan for walking and cycling which identifies preferred routes and core zones for further development;*
- *A prioritised programme of infrastructure improvements for future investment; and*
- *A report which sets out the underlying analysis and evidence that was applied and a commentary which explains the identified improvements and network.”*

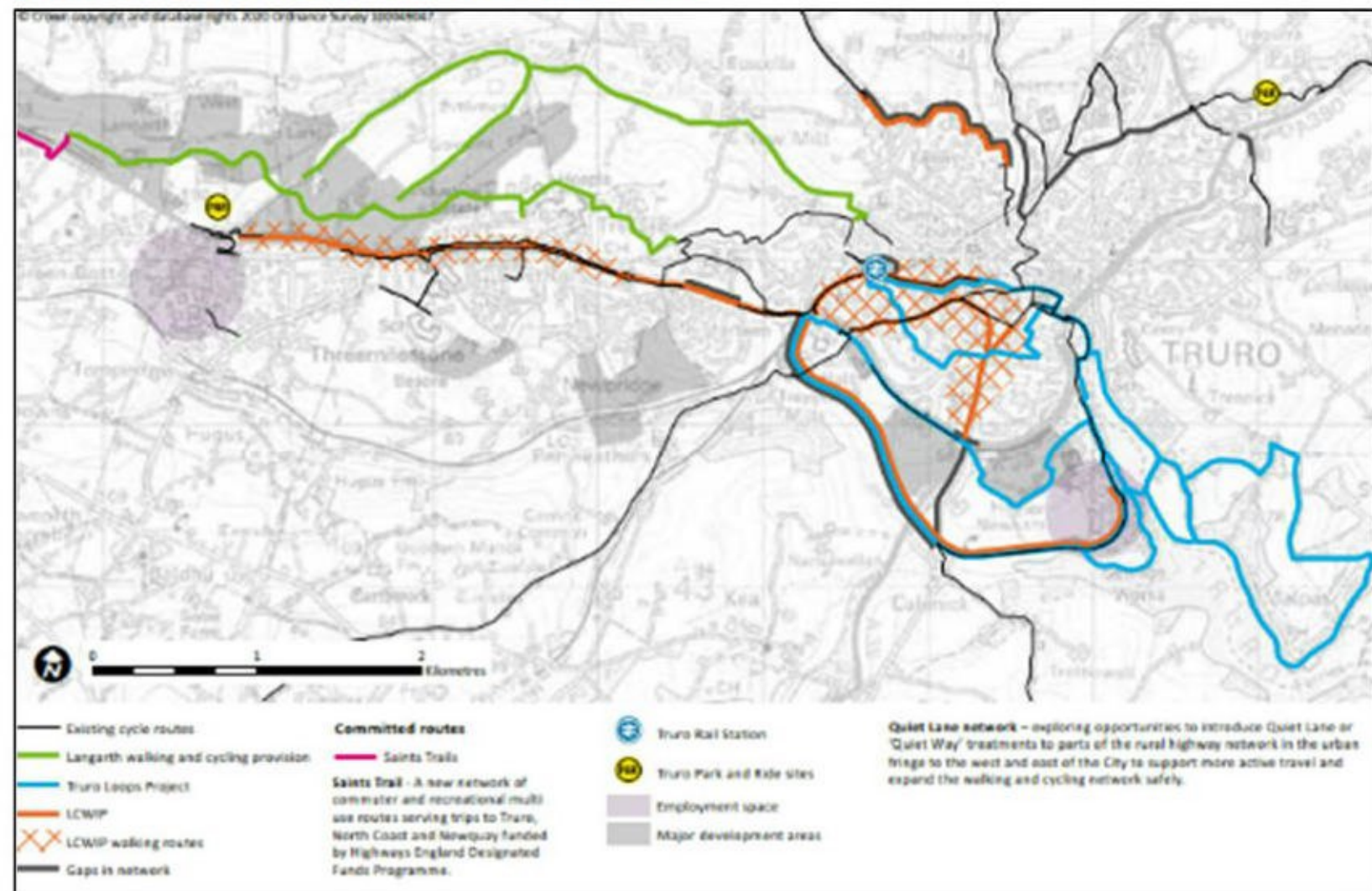
4.4.21 The LCWIP notes that there has been significant investment in public transport, cycling and walking within Truro. Delivery of public transport, walking and cycling improvements, along the A390 to the west of the city, coincides with the recently opened second P&R site at Tregurra. Further funding has been secured to deliver key cycle links from settlements to the north of Truro, from the A30.

4.4.22 Despite these recent improvements there are still gaps in the cycle and walking network and the LCWIP aims to address these by providing a detailed plan for future walking and cycling routes thus linking to key public transport interchanges, residential, educational, health and retail related facilities.



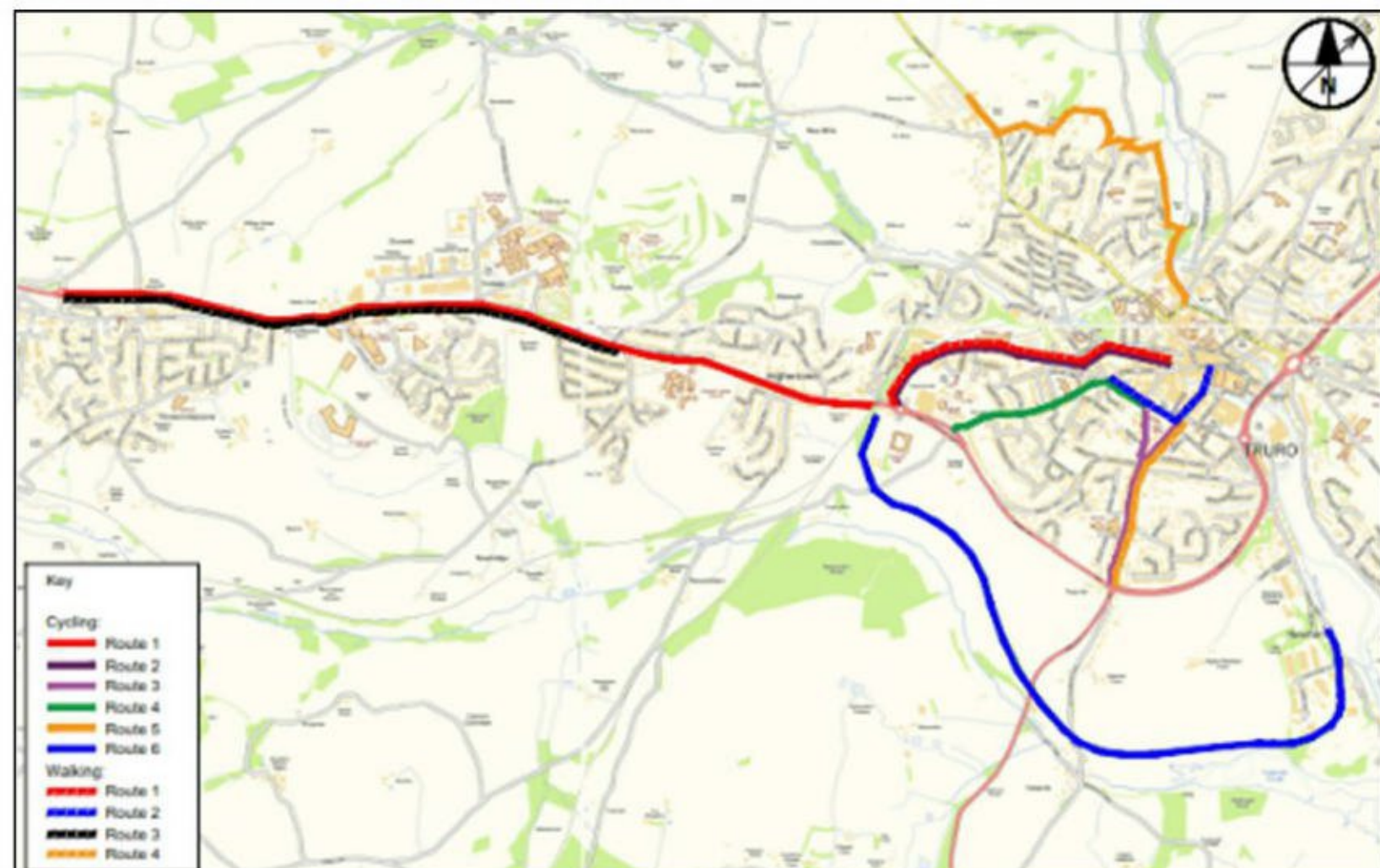
- 4.4.23 The plan will facilitate a modal shift towards sustainable travel that are necessary to ease localised pressure on the road networks in and around the city. The LCWIP will build on recent delivery of key infrastructure upgrades thereby complimenting the delivery of proposed schemes including the Saints Trails (HE Cycle Safety and Integration Designated Funds) and the Truro Loops Project which aims to establish a series of circular walking and cycling routes around the east of Truro. These are shown in **Figure 4-1**.

**Figure 4-1: LCWIP Proposed Improvement Plan**



- 4.4.24 The LCWIP has identified six cycling routes and four walking routes that require improvement, and these will complement the delivery of the proposed development at Langarth. The chosen routes for walking and cycling improvements are shown in **Figure 4-2**.

**Figure 4-2: LCWIP Walking and Cycling Routes**





### Travel Plans – Advice for Developers in Cornwall (2013)

- 4.4.25 This document outlines the approach that should be taken in developing and implementing effective TPs delivered in support of a planning application. The document includes:
- Information on the thresholds of development and the requirement for TPs;
  - Information regarding the different type of TPs and their requirements;
  - Guidelines on the recommended content of TPs, target setting, monitoring and evaluation; and
  - Information on contributions and enforcement.
- 4.4.26 The document also includes information on parking standards for vehicles and bicycles in residential and non-residential developments. An overarching parking strategy has been developed as part of the Design Codes for the proposed development, so as to establish a consistent approach to the parking provision and management of spaces throughout the development.
- 4.4.27 CC has also published guidance documents that deal specifically with school and workplace TPs. These have also been considered and referenced accordingly in the preparation of the Framework TP (FTP) included with the planning submission; this is discussed further at **Chapter 9**.

### Land North of the A390 Truro / Threemilestone Development Brief (March 2012)

- 4.4.28 This development brief was prepared as a non-statutory guidance note in the absence of an up-to-date development plan for Truro in 2012.
- 4.4.29 Point 4.17 of this development brief, which is pertinent to the aspirations of the proposed development, states that:
- “In the summer of 2011 a review was undertaken of the current Transport Strategy for Truro in the light of the proposed developments on Land North of the A390. The review concludes that the combination of measures contained in the current strategy with a focus on enhanced sustainable modes, demand management and highway improvements (including a northern access road) could reduce demand on the A390 to levels experienced today.”*
- 4.4.30 Although the development brief has now been superseded, it contains an important philosophy that is still relevant today. The aim of the proposed development is to provide a package of measures and strategies that will reduce traffic to pre-development levels, both as on-site deliverables and off-site measures to be delivered by CC / third parties.

## 4.5 Summary

- 4.5.1 This chapter of the TA has reviewed the key planning policies relevant to the proposed development. Adopted and emerging policies all point towards the need to reduce car-dependency and increase the uptake of sustainable transport in the context of not only the ‘climate emergency’, but also in terms of healthier lifestyles and management of existing highway networks. This has informed the STS for the proposed development, which aims to minimise the level of traffic generated by the development, and to achieve a substantial reduction in existing traffic through encouraging mode shift to offset traffic generated by the proposed development, the effects of which are accounted for in the travel demand forecasting for the proposed development at **Chapter 10**, and changes in background traffic levels at **Chapter 12**.
- 4.5.2 The proposed development is considered to adhere to the policy framework outlined in this chapter. Detailed policy compliance is outlined in the conclusions in **Chapter 13**.



## 5. Travel Trends Evidence

### 5.1 Introduction

- 5.1.1 This chapter provides a range of evidence to demonstrate the benefits and outcomes of promoting sustainable travel. There is a shift away from a reliance on the private car journeys in favour of more sustainable modes and the way we work is changing with agile and smarter working.
- 5.1.2 The proposed development will provide housing for future generations and must therefore take account of future needs and sustainable aspirations for the next generations. As a forward-thinking wholly sustainable development it is essential to understand that travel trends and indeed needs, are changing and future developments must move away from traditional 'predict and provide' methods of assessment, which risk embedding car dominance through over providing for private vehicle usage.
- 5.1.3 Engraining sustainable travel behaviours from the outset of development occupation is key and this is supported by a range of evidence-based assessments and reports.
- 5.1.4 A review of some of the evidence that has helped to inform the strategy for the proposed development is presented in this chapter.

### 5.2 'Soft Measures – Hard Facts': The Value for Money of Transport Measures which Change Travel Behaviour (January 2011)

- 5.2.1 This report was published by the Department of Health (now Department of Health and Social Care), in association with Highways Agency (now HE) and South West Regional Development Agency (SWRDA), in January 2011. It was produced to provide a review of evidence to demonstrate the benefits of sustainable travel measures and prove the positive impacts that have resulted accordingly. The key messages from the report are:
- *"Travel behaviour change measures can provide very high benefits compared to costs, when measured by WebTAG, the Department for Transport's method for evaluating transport investment;*
  - *Changing how we travel can reduce the need for expensive infrastructure;*
  - *Behaviour change measures can be implemented much more quickly than infrastructure projects;*
  - *All measures achieve genuine carbon reductions (from 5kgs to 1,500kgs per person per year); and*
  - *Greater impact is achieved from careful targeting of people likely to change their behaviour combined with multi-measure programmes across age groups."*

### 5.3 Provision of Travel Trends (June 2016)

- 5.3.1 This report, prepared by AECOM, Imperial College London Consultants and Atkins, was published in June 2016 to expand on the existing knowledge on trends in vehicle trip rates and their drivers. The research was expected to result in the development of a forecasting model to predict trip rates following the identification of the main drivers and estimation of their partial effects. Some of the key findings of the research are as follows:
- The estimated effects of age on trip rates were found to be different across different age segments and trip purposes;
  - On average, individuals living in London tend to have lower trip rates;
  - Having children in the household is associated with lower trip rates for the majority of trip purposes and segments, aside from shopping trips;
  - Higher levels of income are associated with higher levels of trip making for recreational and holiday purposes; and
  - Migrants tend to make fewer recreational / social, visiting friends and relatives, and holiday / day trips.



5.3.2 In general, the study established a greater understanding of factors influencing trip rates and explained more about the cross-sectional variations in trip rates observed in the UK. Section 6.2 of the report suggests a number of areas of further research, including:

- The cause of the 'London effect', in particular the influence of density of development and the quantity and quality of transport supply;
- The influence of changes in the structure of household organisation and task allocation between individuals; and
- The influence of new internet-based services and business models on personal mobility and more broadly the interaction between physical and virtual behaviours.

## 5.4 Uncertainty Ahead: Which Way Forward for Transport (August 2016)

5.4.1 This report was published by the CIHT in August 2016. It documents the findings from a series of workshops that were undertaken to examine the uncertainty in the future demand for car travel and the implications for forward planning. The key messages are as follows:

- Deep uncertainty exists about the future and official forecasts of total car traffic appear at odds with overall professional opinion on future uncertainty;
- The transport sector is not equipped to grasp the extent of socio-technological transformation that modern technology may bring and how that has an impact on transport;
- Population groupings, and the types of people locating there, constitutes both uncertainty and an important influence on the shape of future transport supply and demand; and
- The transport profession is working in times of unprecedented change and there is a window of opportunity to address the challenges that this change brings about. Clear guidance should be developed to assist a culture change towards a 'decide and provide' approach.

5.4.2 Scenario planning is noted as a key activity towards planning for change in travel behaviour. It enables the following questions to be asked:

- What sort of place are we creating?
- What kinds of activities do we need to travel for?
- How will we provide for mobility?

5.4.3 These questions are indicative of a move towards a 'decide and provide' approach rather than the traditional 'predict and provide' approach which assumes that people will maintain previous and current travel behaviour.

## 5.5 All Change? The Future of Travel Demand and the Implications for Policy and Planning (May 2018)

5.5.1 This report was published by the Commission on Travel Demand (CTD) in May 2018. It was developed through a 12-month long evidence gathering process from across the UK and internationally, offering a positive perspective on the future of travel demand.

### The Demand for Travel has Changed

5.5.2 This section of the report outlines some of the changes in travel habits since the 1990s. Section 4.2 states that we are travelling less today than we used to. On average we:

- *"Make 16% fewer trips than we did in 1996;*
- *Use motorised transport for almost 100 (14%) fewer trips per year than in 2002;*
- *Travel 10% fewer miles than we did in 2002 (now 6,396 miles/person/year); and*
- *Spend 22 hours less travelling than in 2005 and less than at the start of the 1990s."*



5.5.3 In terms of development planning, the report identifies a number of areas that should be considered. Broadly, these are as follows:

- Retail;
- Travelling less;
- Travel to work;
- Age and gender differences;
- Socio-economic conditions affecting travel choices;
- Geographical differences;
- Changing transport technologies;
- Cycling and walking; and
- Rail travel.

5.5.4 Section 5.1 discusses the changing nature of travel demand, with the following identified as factors that will influence the evolution of demand:

- Changes to healthcare technology (new treatments and remote diagnostics) and provision which impact on how often, for what, how and where (service reconfiguration) we access health services;
- Brexit and the extent to which this will change trading patterns, the balance of industrial growth, the volume and background of immigrant workers;
- The continuing divergence between housing prices and household incomes;
- Changing social preferences for communication through social media; and
- Changes to the retirement age and to pension scheme benefits as life expectancies rise.

## 5.6 National Travel Attitude Study (May 2019)

5.6.1 This report was published by the DfT in May 2019. It was prepared to compare trends in travel choices. It noted that *"there has been an increase in the number of people who report that they never or rarely use a car for journeys under two miles, from 11% in 2006 to 21% in 2019."*

5.6.2 Within the study respondents were asked *"How likely or unlikely are you to use more than one form of transport on your journey, if you knew this was quicker than using a single form of transport?"*

5.6.3 The report concludes that *"There is support amongst respondents for using more than one mode of transport when it is faster to do so, with 59% stating that they are likely to do, versus 40% who are unlikely."*

## 5.7 Guidance Note on Changes in Travel Behaviour (August 2019)

5.7.1 This report was published by the TRICS Consortium in August 2019. The purpose of this report is to inform TRICS users of the changes in travel behaviour, whereby it is becoming apparent that car trips from comparable developments are reducing over time. Paragraph 1.1 of the report states that *"in the face of deep uncertainty, the 'predict and provide' paradigm that has framed transport planning processes is to give way to 'decide and provide' paradigm – decide on the future and provide the means to work towards that which can accommodate uncertainty."*

5.7.2 Overall, historic TRICS data reflects the national travel behaviour trends at a local level. It is not clear whether the total vehicle trip reduction is as a result of site-specific measures, such as reduction in car parking provision or site-specific design. Paragraph 2.47 states that *"The increase in pedestrian trips and public transport trips has positive implications for planning sustainable transport sites."*

5.7.3 The evidence from the TRICS historic review demonstrates that there has been a sustained change in travel behaviour. This change is reflected in the trip rates for residential, retail (super food) and employment sites. Paragraph 2.49 states that *"Care needs to be taken to ensure that the design of the residential and retail development, in particular, take account of these changes in travel behaviour."*



- 5.7.4 Paragraph 4.12 suggests that *“At the earliest stage, decision makers; local authority officers and politicians need to be brought into the discussions surrounding the use of the ‘decide and provide’ approach, the use of trends and scenario planning and the trip generation analysis.”*
- 5.7.5 Paragraph 6.10 states that *“Further research on how the changes in travel behaviour can be reflected in the development planning process and transport assessment process is required.”*

## 5.8 On the Move: Navigating the Future of Road Transport (November 2019)

- 5.8.1 This report was published by SYSTRA (commissioned by BP) in November 2019. It presents findings from a research study relating to some of the barriers, drivers and potential solutions shaping future transport. The report states that the future of personal and passenger transport will be a blend of Autonomous, Connected, Electric and Shared technologies (ACES).

### Autonomous Vehicles

- 5.8.2 The authors view on Autonomous Vehicles (AVs) consists of the following:
- Potential benefits include more efficient road network, alternative use of parking spaces, greater accessibility for less-mobile users and opportunities for first / last mile connections to public transport;
  - AVs may be more suited to mass transit, longer journeys and freight, where they can operate in dedicated lanes or as part of fleets for last mile deliveries; and
  - The need to overcome public concern that AVs are unsafe and are capable of making unethical decisions.

### Connected

- 5.8.3 The expert view on connected vehicles consists of the following:
- Potential to provide safer and more efficient journeys;
  - Ability to combine different transport modes / operators through Mobility as a Service (MaaS);
  - Concerns include technological constraints, data security and privacy; and
  - Consumer interests will need to be protected from service providers offering their own transport solutions, above the most convenient options.

### Electric Vehicles

- 5.8.4 The expert view on EVs consists of the following:
- Increased momentum for electrification, with improved battery life and reduced charging time; and
  - Perceived as a key solution for lowering carbon emissions but challenges remain around sustainable battery manufacture and disposal, vehicle cost, charging infrastructure and range anxiety.

### Shared Mobility

- 5.8.5 The expert findings on shared mobility are as follows:
- Access to mobility will be more important than ownership for many, especially in well-connected sites;
  - The move to a sharing economy is driven by younger generation;
  - It will fill gaps in public transport, but matching demand to supply can be difficult – particularly in rural areas; and
  - Uncertainty over ability to extend beyond national boundaries, overcome public concern for personal safety, and safeguarding data privacy.



## 5.9 COVID-19

- 5.9.1 It is likely that there will be some longer-term changes in future travel patterns as a result of the COVID-19 pandemic. The short-term reduction in traffic in cities across the UK and world-wide is clear. Factors reducing travel, such as homeworking and online meetings are anticipated to become more attractive and more normal to people as the recent lockdown requirements has forced these practices and, as such, perceived barriers to working at home have most likely been reduced and perceptions have changed. It is likely therefore that some changes will occur, as the infrastructure is in place to facilitate homeworking.
- 5.9.2 Further to this, there are other factors likely to affect travel patterns resulting from COVID-19, with the longer-term outcomes as yet unclear. Car traffic levels reduced significantly in the early stages as a result of lockdown restrictions. At the time of writing, daily traffic volumes have been identified as slowly returning to previous levels as lockdown restrictions have ease, although traditional peaks are noted as being less pronounced; this would suggest a level of 'peak spreading' where people travel outside of the traditional peak hours, potentially through increased flexibility with working patterns and behaviours. Coupled with this, public transport patronage levels are down significantly due to concerns around social distancing, whilst there have also been substantial increases in walking and cycling.
- 5.9.3 The degree to which these trends are maintained, or whether pre-COVID travel habits return, is as yet unclear. What is clear however, is the opportunity to influence future car usage through supporting genuine alternatives to the private car and reducing the need to travel as a whole.

## 5.10 Summary

- 5.10.1 It is evident that travel behaviour and trends have changed in recent years and are likely to continue to do so in the future. The availability / relative cost of 'greener technologies' and healthier life choices are encouraging a shift away from private car use and national and local policies place emphasis on delivery of sustainable development.
- 5.10.2 Development must conform to the 'new way of thinking' and move away from historic methods of 'predict and provide' assessment when sustainable development can clearly be delivered. Significant sustainable travel enhancements are proposed in Truro and designed into the proposed development. This can meet the travel demands of future residents and accord with the emerging changes that the evidence shows to have occurred over recent years. These trends have been taken account of in travel demand forecasting for the proposed development at **Chapter 10** and with consideration to changes in background traffic levels at **Chapter 11**.



## 6. Local Highway Characteristics

### 6.1 Introduction

- 6.1.1 This chapter sets out information regarding the baseline local highway network including traffic flows, highway layout and highway safety record.

### 6.2 Local Highway

#### Overview

- 6.2.1 The proposed development land borders the A390 primary route into Truro, north of the village of Threemilestone and lies to the west of Truro as shown in **Figure 2-1**. The A390 is a key corridor from the A30 into Truro City Centre providing access along its route to a number of key employment sites such as the RCHT (Treliske), education facilities, several retail and industrial parks, Threemilestone Village, and the Langarth P&R site and CC offices.
- 6.2.2 The area immediately surrounding the site is rural with fields on either side and low hedgerow. Footways are intermittent along the route and where there is no provision the road is bordered by grass verges.
- 6.2.3 There are several concealed entrances within 500m to the west of the western site access along this section of the A390, serving farms, agricultural buildings and other residential properties. Approximately 50m to the east of the western site access on the southern edge, is the entrance to Truro Caravan and Camping Park where at this point hatched markings in the centre of the road begin for 360m until the carriageway widens to accommodate a left-turn slip lane into the Langarth P&R site.
- 6.2.4 Approximately a further 260m east from this slip lane, the newly signalised Threemilestone Roundabout junction provides the dual carriageway link to RCHT at Treliske, Truro and Penwith College and Richard Lander Secondary School.

#### Key Junctions

- 6.2.5 The proposed study area for the purpose of this TA includes a number of junctions on the strategic and local highway network, as listed in **Table 6-1**. The location of these junctions (based on the A30 CtCC scheme) including the proposed development highway network are shown in **Figure 12-1**.

**Table 6-1: Key Junctions**

Reference	Junction Name
J1	B3277 / Chiverton Cross Garage Roundabout
J2	A30 / A390 / A3075 / B3277 'Chiverton Cross' Roundabout
J3	A390 / Langarth P&R Access Signalised Junction
J4	A390 / Link to Threemilestone 'Threemilestone' Signalised Roundabout
J5	Chyvelah Road / Link to Threemilestone Roundabout Signalised Junction
J6	Chacewater Hill / Threemilestone Retail Park Signalised Junction
J7	A390 / Chyvelah Road Signalised Junction
J8	A390 / Higher Besore Road Signalised Junction
J9	A390 / Chyvelah Vale 'Maiden Green' Signalised Roundabout
J10	A390 / Penventinnie Lane / Newbridge View 'Treliske' Signalised Roundabout
J11	A390 / Treliske Lane T-Junction
J12	A390 / Newbridge Lane Roundabout
J13	A390 / Navigator Way Signalised Junction
J14	A390 / Malabar Road T-Junction
J15	A390 / Dobbs Lane T-Junction
J16	A390 / Station Road / Sainsburys / CC 'Dalvenie' Roundabout
J17	A39 / A390 / Falmouth Road Double Mini-Roundabout
J18 / J19	A30 / B3284 'Chybucca' Junction

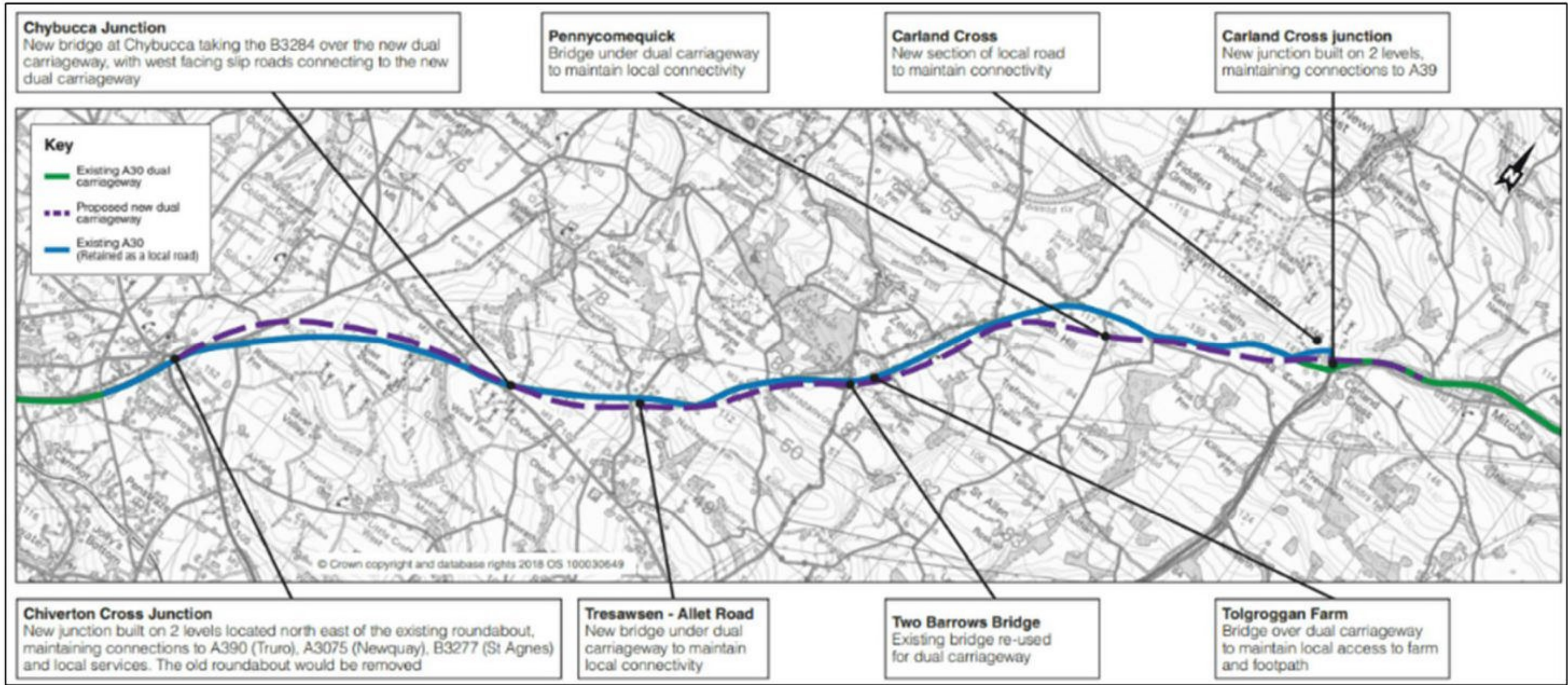


### A30 Trunk Road

- 6.2.6 The A30 is the main highway route through Cornwall from Exeter, where it meets the M5 Motorway. It is dual carriageway along the majority of its length and subject to national speed limits. It is maintained by HE and forms part of the country's Strategic Road Network (SRN).
- 6.2.7 The A30 runs approximately 3km to the west of the proposed development site and connects to the A390 at a large roundabout junction, Chiverton Cross (J2).
- 6.2.8 From Chiverton, heading northwards is the A3075 towards Newquay. It runs parallel to the A30 along its initial section. Approximately 2.5km north, a staggered crossroads provides access to the B3284, to Perranporth to the west and Chybucca to the east.
- 6.2.9 At Chybucca (J18 / J19), the A30 includes another staggered crossroad junction with the B3284 which runs eastward into Truro, via Shortlanesend.
- 6.2.10 On 6th February 2020, the Secretary of State for Transport granted approval for the dualling of the A30 CtCC scheme to be built by granting the Development Consent Order (DCO), with work due to start in 2020. An overview of the full scheme is shown in **Figure 6-1** and includes:
- A 14km, high-quality 70mph dual carriageway, connecting to the existing A30 dual carriageway at either end;
  - Replacement of Chiverton Cross roundabout with a new, grade-separated roundabout;
  - A new, two-level partial junction at Chybucca, with west-facing slip roads connecting to the new dual carriageway;
  - Replacement of the existing roundabout at Carland Cross with a grade-separated junction;
  - New bridges and accesses across the new road and the old road; and
  - Retention of the existing A30 for local traffic.
- 6.2.11 The committed scheme includes significant changes to the existing highway network in terms of access to the A30 and level of provision on the A30 itself. This will result in changes in traffic flows on the network, as has been examined in the DCO.



Figure 6-1: A30 Chiverton to Carland Cross Scheme





### A390 County Road Network

- 6.2.12 The A390 is single carriageway connecting Chiverton Cross (A30) to Truro. It runs on an east-west alignment and is subject to the national speed limit between the A30 and Threemilestone.
- 6.2.13 Approximately 1km from the roundabout is a side road, subject to a 40mph speed limit, providing access to and from Chacewater. This route has a weight restriction preventing use by vehicles over 18 tonnes. A number of access points along the route, serving a range of agricultural, residential and commercial units are provided with standard give way arrangements.
- 6.2.14 The road, beyond Threemilestone, changes to a 50mph, then into a 40mph speed limit, and footways / cycleways are introduced in the vicinity of the P&R site. Further east, the road has a number of junctions serving residential estates, businesses, RCHT and the P&R site. Junction form is discussed in this section.

#### B3277 / Chiverton Cross Garage Roundabout (J1)

- 6.2.15 This junction provides access to Chiverton Cross Garage (the 'Blackwater Service Station'), the B3277 to St Agnes to the northwest and a local route to the southwest toward Blackwater.
- 6.2.16 The junction is street-lit with segregated footpaths and informal crossings, by way of dropped kerbs, are provided on each arm of the roundabout.

#### Langarth and Threemilestone (J3-J7)

- 6.2.17 Access to the western side of the P&R site is provided via a left-in / left-out (LI / LO) junction (J3). A toucan crossing is incorporated into the junction providing access across the A390 toward Threemilestone. A signalised roundabout provides access to the eastern side of the P&R site (J4) and Threemilestone. The junction has recently undergone some improvements, as part of the Growth Deal Programme, including signalisation of all four arms on a full-time basis and improvements to bus priority, pedestrian and cycle facilities. Bus lanes, for buses and cyclists only are provided from the exit of the P&R site and eastwards towards Truro for a short distance, providing priority access for the bus to bypass the signals at the junction to Threemilestone Village (J5). The roundabout was completed and fully open to the public at the end of August 2017. The mini-roundabout to the south of the main junction was replaced with a signalised junction (J5) as part of the works. The Threemilestone Industrial Estate junction was signalised as part of a private development of a retail park to the north of the junction.
- 6.2.18 The A390 continues eastward with no footways. A bridleway crosses the A390, accessed from Chyvelah Road, approximately 300m to the east with a refuge between the crash barriers within the central reserve.
- 6.2.19 Chyvelah Road runs parallel and to the south of the A390. It serves as access to the village of Threemilestone, containing a range of dwellings, commercial and retail units and a public house. At its most eastern end is a bus gate (J7), approximately 750m from Threemilestone Roundabout (J4), which was constructed in 2017 providing priority for eastbound buses onto the A390 from Threemilestone.
- 6.2.20 A shared footway / cycleway is provided from the above junction which runs along the southern edge of the A390, providing connections to residential areas.

#### A390 / Higher Besore Road Signalised Junction (J8)

- 6.2.21 Eastwards on the A390 a third lane provides a right-turn to Higher Besore Road (J8), which provides access to Richard Lander School. A signalised crossing is provided across the access to cater for east-west pedestrian / cycle movements. The road is lit and subject to a clearway order, enforced with double yellow lines, along its length. It does not have any footways.



#### Maiden Green Roundabout (J9)

- 6.2.22 This junction provides access to fast-food establishments to the north and Truro and Penwith College to the south, via Chyvelah Vale. Beyond the College, to the south, is a large residential area.
- 6.2.23 There are footways and shared footway / cycleway provision on the A390 at this junction and a toucan crossing located on Tresawls Road, east of the roundabout.
- 6.2.24 Bus stops near Maiden Green have large shelters with Real Time Passenger Information (RTPI). These are well used, including by the P&R services and by College buses that are operated as part of the TP at Truro and Penwith College.

#### Oak Lane

- 6.2.25 Oak Lane operates with a LI / LO arrangement onto the A390 approximately 160m east of Maiden Green (J9) providing access to Treliske Industrial and Trading Estate. Oak Lane continues eastward joining Penventinnie Lane.
- 6.2.26 Approximately 300m east of Oak Lane is a toucan crossing across the A390, which provides access into the estate. Bus stops are located near to the crossing.

#### Treliske Roundabout (J10)

- 6.2.27 The junction is partially signalised and has footways and cycleways on both sides with signalised crossings. Bus priority measures are provided on the eastbound approach.
- 6.2.28 The A390 reduces from two lanes to a single lane eastbound from Treliske Roundabout. A bus lane is provided at the junction with Old Penventinnie Lane which continues through the Lowen Bre junction via a priority bus gate.

#### Lowen Bre

- 6.2.29 Lowen Bre is a residential development, subject to a 30mph speed limit and has footways on both sides, as would be expected within a residential environment. A short length of right-turn lane is provided for eastbound vehicles at the junction on the A390.
- 6.2.30 Houses start to have frontage on to the A390 from this point onwards toward Truro and some bus stops are provided on the carriageway.

#### A390 / Treliske Lane T-Junction (J11)

- 6.2.31 Treliske Lane provides access to the north, and in particular the Truro Golf Club, with a short right-turn refuge and a yellow box marking. Access onto the A390 is restricted to left-out only whereby drivers will need to make use of the Newbridge Lane roundabout for westbound journeys.

#### A390 / Newbridge Lane Roundabout (J12)

- 6.2.32 This roundabout provides access to Newbridge Lane to the south. The roundabout has a give-way within for the movement from the A390 (western arm) to turn right onto Newbridge Lane, and a signalised pedestrian crossing to the east side.
- 6.2.33 A bus stop and layby (eastbound) is located on the northern side of the A390 and a footpath is located behind a hedge on this side of the road. On the south side, a standard footway is located continuing towards Highertown.

#### A390 / Navigator Way Signalised Junction (J13)

- 6.2.34 This junction, also known locally as 'Penn An Dre', provides access to the residential area to the south. The footpath to the north is combined with a shared-use path running eastwards. A toucan crossing is provided on the east side of the junction and another across the side road.



6.2.35 At this location the A390 is single lane in both directions although a bus lane, and associated stops, is provided for approximately 375m to the east of the junction.

6.2.36 A number of residential estates are served off the A390 between Navigator Way and Malabar Road junction.

#### A390 / Malabar Road T-Junction (J14)

6.2.37 The junction includes a right-turn lane for movements to Malabar Road. A toucan crossing is located on the western side of the junction which assists these right-turn movements and exit movements from Malabar Road.

6.2.38 There are shared-use pedestrian / cycle facilities on both sides of the A390 at this point and a gateway feature enforces a 20mph speed limit into Malabar Road.

#### A390 / Dobbs Lane T-Junction (J15)

6.2.39 Dobbs Lane is restricted to only vehicles under 7.5 tonnes and subject to a 20mph speed limit. A footway is provided on one side and the road becomes more rural.

6.2.40 Access on to the A390 is restricted to left-turn movements only, requiring use of Dalvenie Roundabout for westbound movements. A right-turn lane is provided for movements from the A390.

#### Dalvenie Roundabout (J16)

6.2.41 Prior to Dalvenie Roundabout lies a side road to the west of the roundabout providing a bypass lane to Station Road, towards the rail station and other local areas. Access to NCH is provided to the south and to the Sainsburys supermarket to the north, adjacent to the Station Road arm.

6.2.42 The five-arm roundabout itself is a large planted / landscaped roundabout with two circulatory lanes. Pedestrian railings guide crossing movements to uncontrolled crossing points at each entry / access. A signalised crossing is provided to the east.

#### A39 / A390 / Falmouth Road Double Mini-Roundabout (J17)

6.2.43 This junction, also known locally as 'Arch Hill', is located approximately 1.2km east of Dalvenie Roundabout. Here, the A390 continues east as the A39. This junction is the confluence of the main route to Falmouth to the south (A39) and the City Centre (Falmouth Road) to the north.

### **Local Streets**

6.2.44 There are a number of side roads, served off the A390, providing residential and commercial accesses. Residential streets generally conform to standard design with footways and streetlights throughout.

### **Walking and Cycling**

6.2.45 A number of local walking and cycling routes are available along or adjacent to the A390. These are reviewed in more detail in **Chapter 6**. The existing provision offer a good range of walking / cycling facilities connecting the proposed development site to existing services and amenities, and into Truro itself.

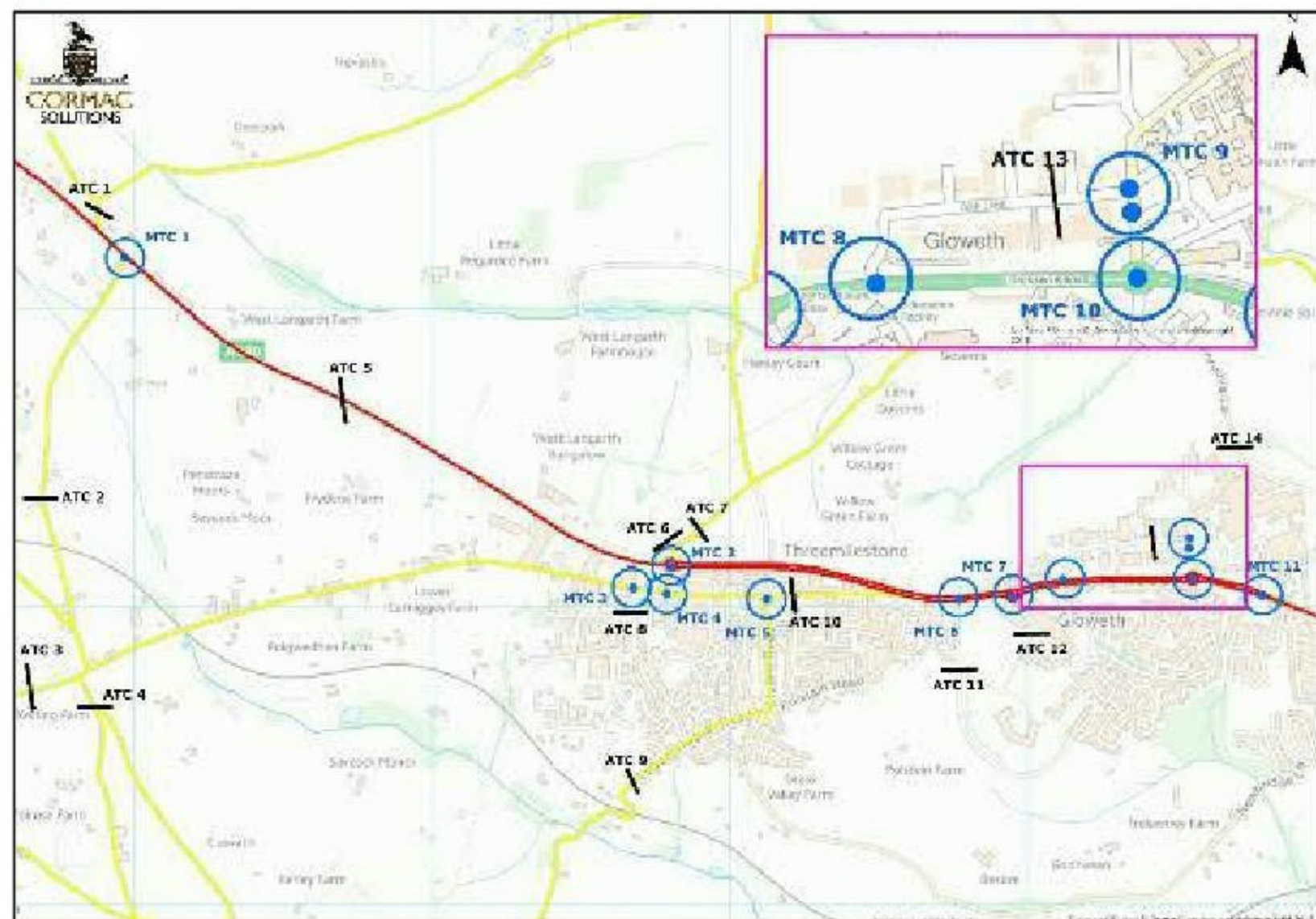
## **6.3 Data Collection**

6.3.1 A range of traffic data has been supplied by CORMAC. These include Automatic Traffic Counts (ATCs) and Manual Traffic Counts (MTCs) on the local highway network undertaken in October 2018 (pre-COVID), listed in **Table 6-2** and shown in **Figure 6-2**.



**Table 6-2: Location of Collected Data (October 2018)**

Survey Type	No.	Location
ATC	1	Unnamed Road, north of A390
	2	Unnamed Road, between A390 and Chacewater Hill
	3	Chacewater Hill
	4	Unnamed Road, south of Chacewater
	5	A390
	6	P&R Access
	7	Unnamed Road, north of P&R Access
	8	Threemilestone Industrial Estate
	9	Lower Hugus Road
	10	Chyvelah Road
	11	Higher Besore Road
	12	Chyvelah Vale
	13	Oak Lane
	14	Penventinnie Lane
MTC	1	A390 / Link to Chacewater T-Junction
	2	Threemilestone Roundabout
	4	Chyvelah Road / Link to Threemilestone Roundabout Signalised Junction
	5	Chyvelah Road / Hugus Road Roundabout
	6	A390 / Higher Besore Road Signalised Junction
	7	Maiden Green Roundabout
	8	A390 / Oak Lane LI / LO Junction
	9	Penventinnie Lane / Oak Lane / RCHT T-Junctions
	10	Treliske Roundabout
	11	A390 / RCHT LI / LO Junction

**Figure 6-2: Survey Location Plan (October 2018)**

6.3.2 Additionally, ATC survey data from 2012 to 2018 was provided by CORMAC across six separate locations as follows:

- Chiverton (A390);
- Chacewater Garden Centre (Chacewater Hill);



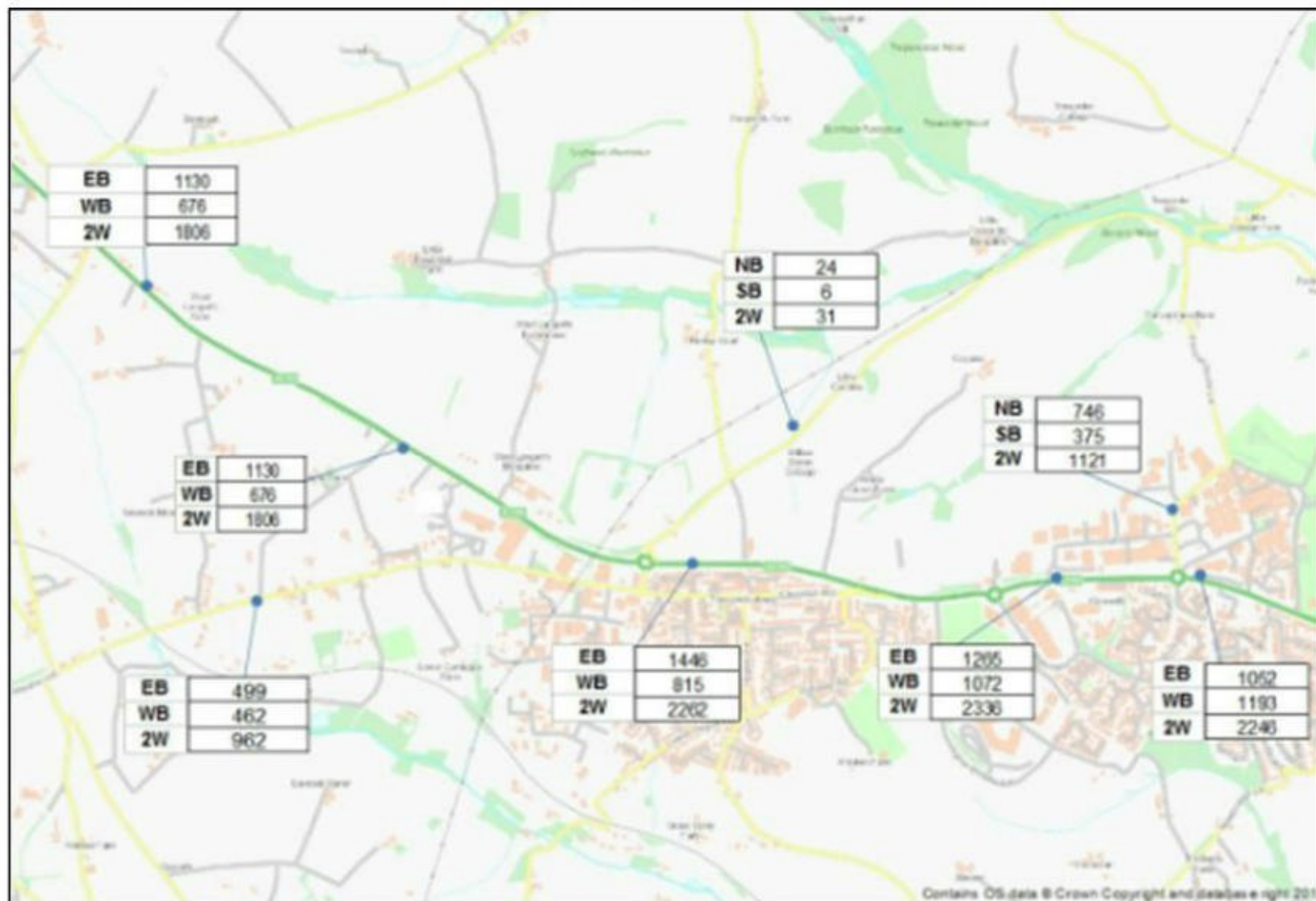
- Truro Golf Club (A390);
- Carnon Downs (A39);
- Shortlanesend (B3284); and
- Tresillian (A390).

## 6.4 Baseline Traffic Flows

### Weekday AM and PM Peak Hours

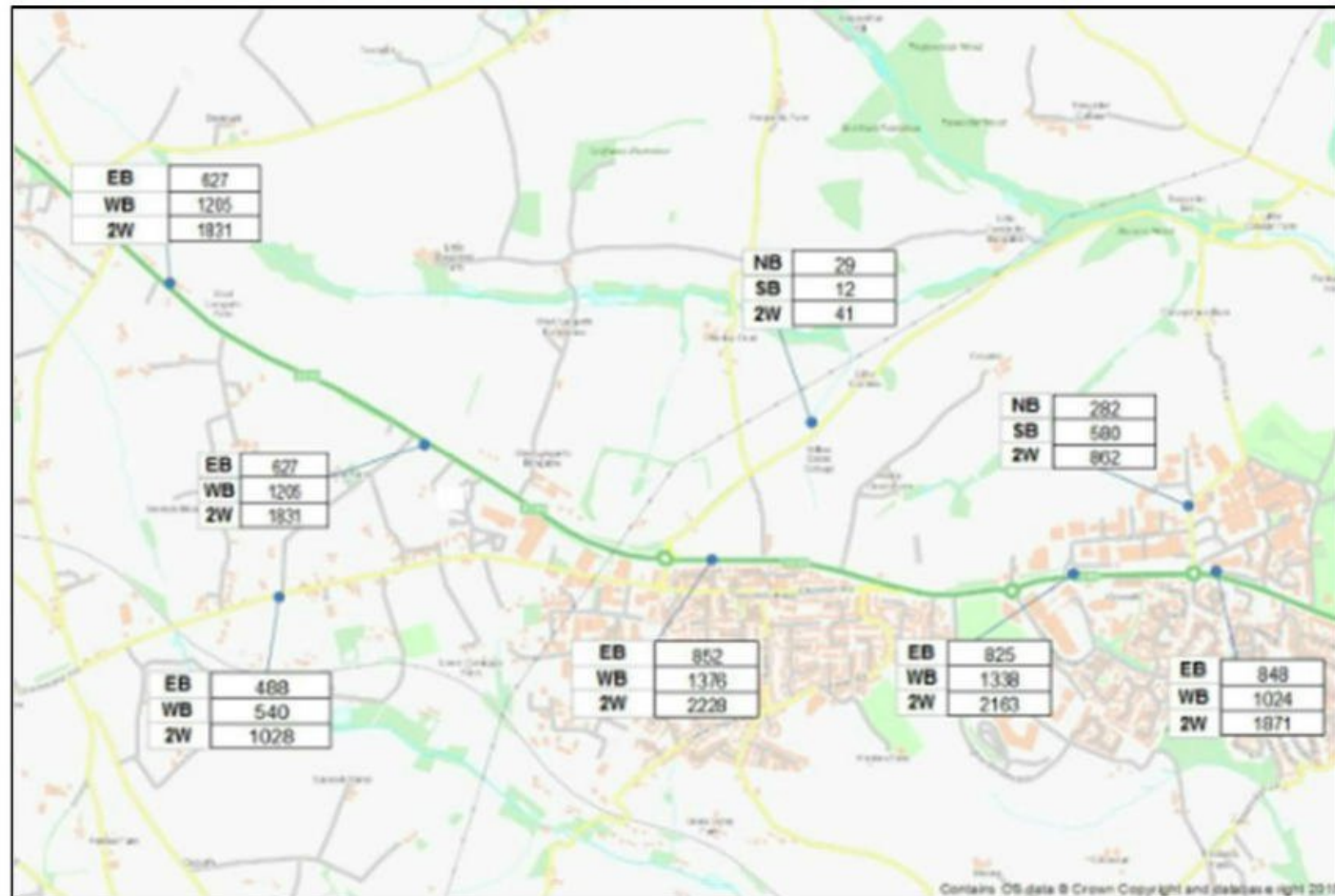
6.4.1 **Figures 6-3 and 6-4** show the traffic flows on selected areas within the study area for each time period. The traffic flows are derived from the SATURN model; this provides traffic flows for the three-hour weekday AM (07:00-10:00hrs) and PM (16:00-19:00hrs) time periods rather than specific hourly windows. An hourly average of the respective three-hour periods has therefore been extracted from the model to derive traffic flows for the weekday AM and PM peak hours.

**Figure 6-3: Weekday AM Traffic Flows (Average Hourly Flow from 07:00-10:00)**





**Figure 6-4: Weekday PM Traffic Flows (Average Hourly Flow from 16:00-19:00)**

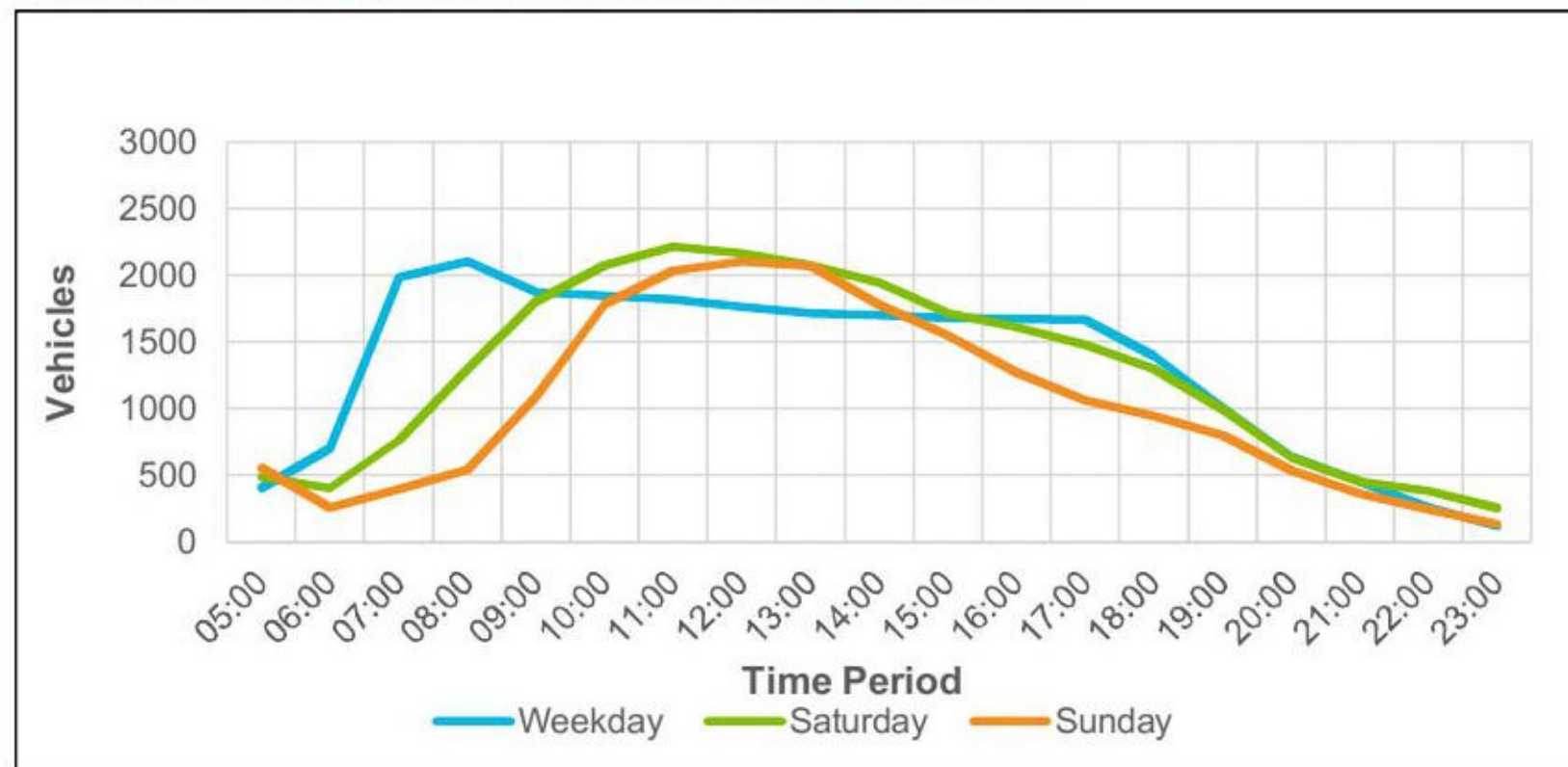


### Seasonal Variations

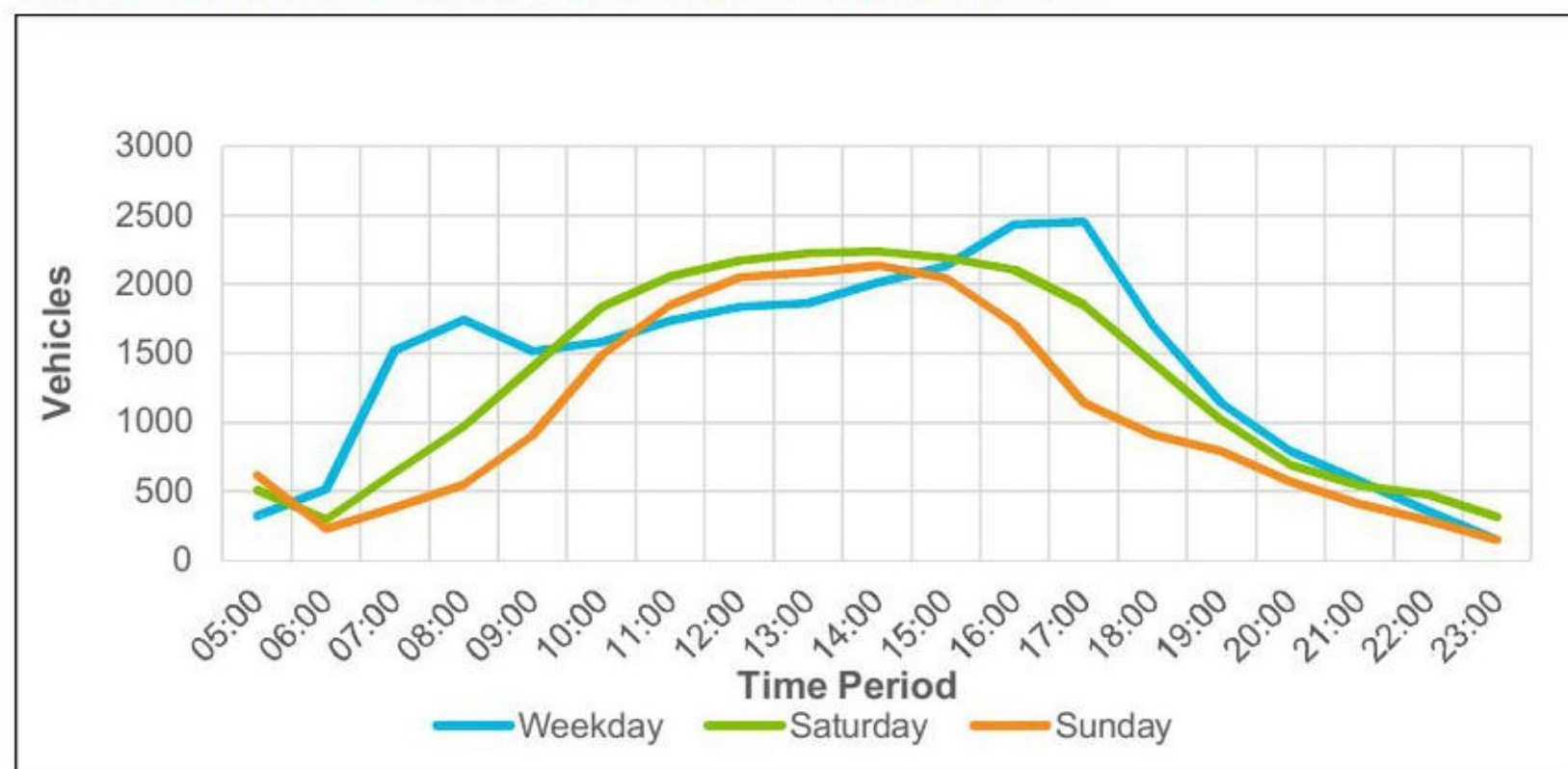
- 6.4.2 Analysis of seasonable variations in the ATC data has been undertaken, as requested by the LHA during the scoping process.
- 6.4.3 Truro is not only a commuter city but also is a busy retail and holiday destination within the County. As such the usual reduction in traffic peaks, during the weekend and holiday seasons (summertime), might not necessarily occur as they normally do in other areas. The LHA wanted assurance that the assessment of flow was therefore appropriate. The LHA requested that an assessment of Saturday flow was provided and made particular reference to the ATC on the A390 at Truro Golf Club.
- 6.4.4 It is acknowledged that data at this particular ATC shows a higher flow during a Saturday than during the AM / PM weekday counts. However, an assessment of a range of ATC data is included, as follows.
- 6.4.5 ATC survey analysis was undertaken comparing neutral months (April, May, September and October) to summer months (July and August) in terms of weekday traffic (Monday-Thursday), Saturday and Sunday (definitions for neutral, summer, weekday, etc are as per *Design Manual for Roads and Bridges DMRB*)).
- 6.4.6 Two-way flow movements, in and out, of the ATC sites at Chiverton (A390), Chacewater Garden Centre (Chacewater Hill) and Truro Golf Club (A390) were analysed. **Figures 6-5 to 6-10** illustrates the total flow movements combining all three sites' in and out flows, comparing weekday and weekend vehicle flow for neutral months, summer months and a comparison of weekday vehicles between neutral and summer months.
- 6.4.7 **Figures 6-5 and 6-6** show that in the neutral month, the AM and PM peak periods are highest in the weekday, when compared to the weekend period. Conversely the weekend profile is higher during the day.



**Figure 6-5: Average Vehicle Flows (Eastbound) for Neutral Month**



**Figure 6-6: Average Vehicle Flows (Westbound) for Neutral Month**



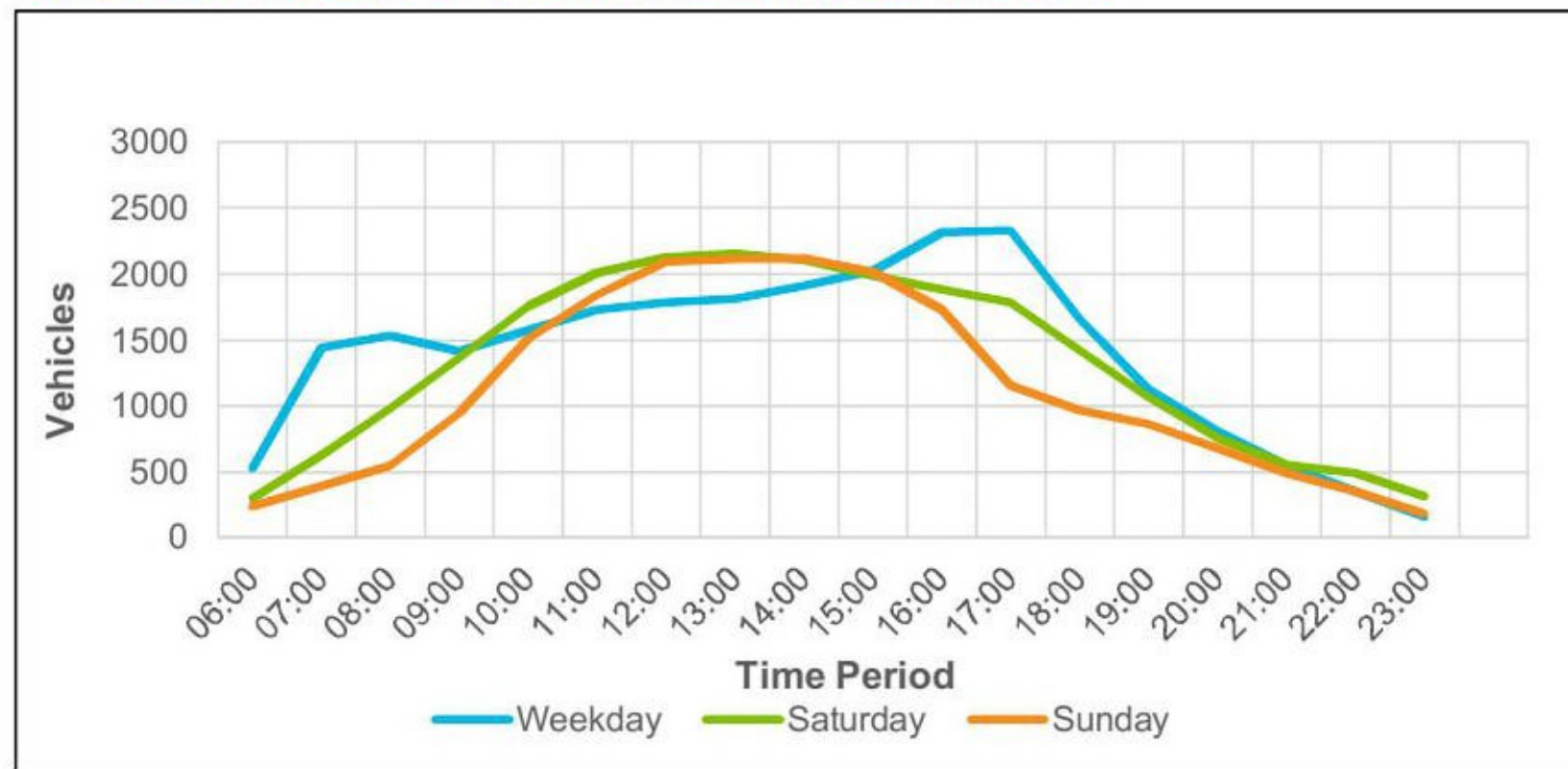
6.4.8 The same profile is evident during the summer months as shown in **Figures 6-7** and **6-8**. The use of the AM and PM peak hour data is therefore considered appropriate for assessment purposes and the data from the Golf Club ATC unit does not necessarily reflect the wider highway profile.

**Figure 6-7: Average Vehicle Flows (Eastbound) for Summer Month**



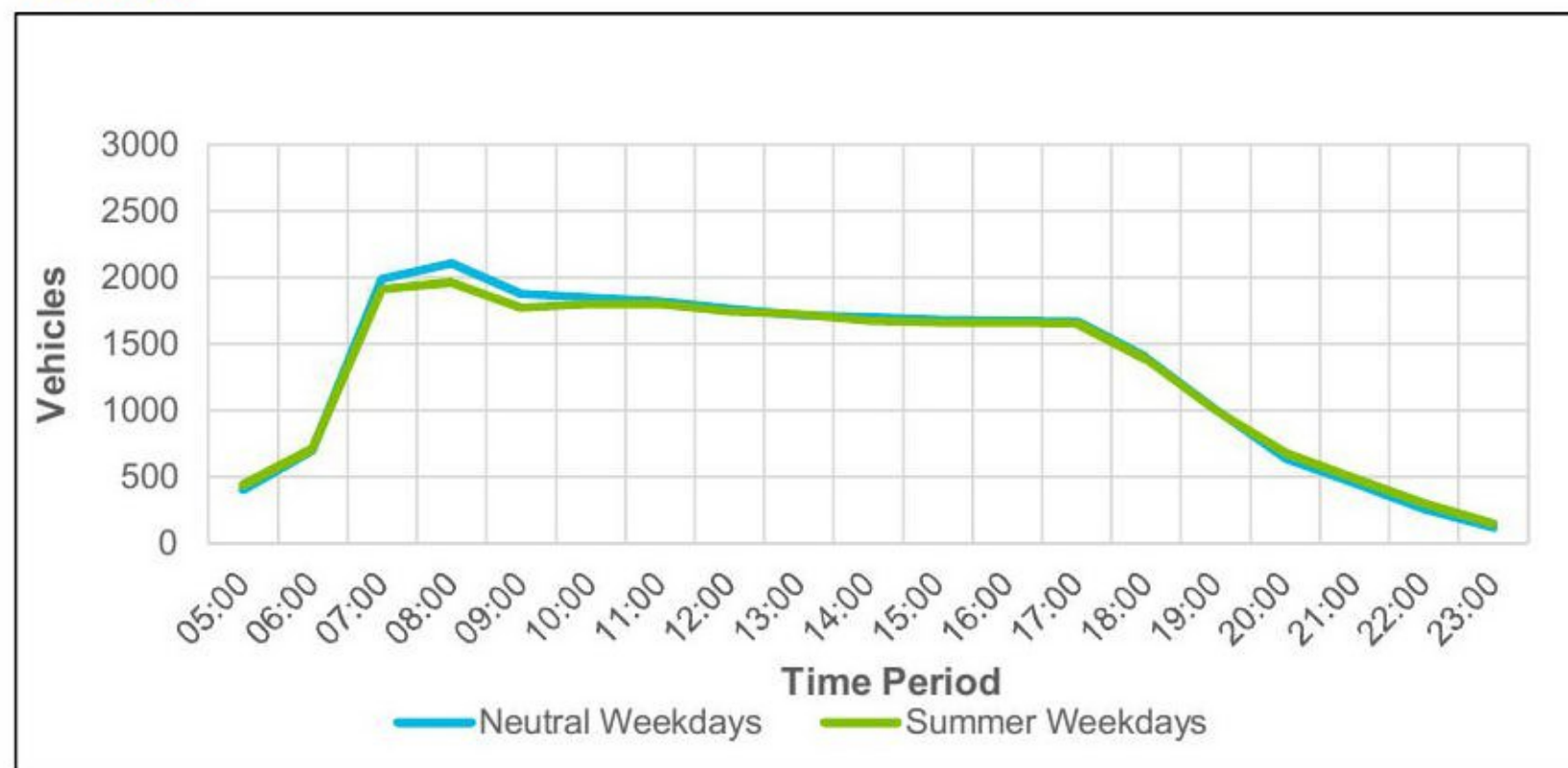


**Figure 6-8: Average Vehicle Flows (Westbound) for Summer Month**



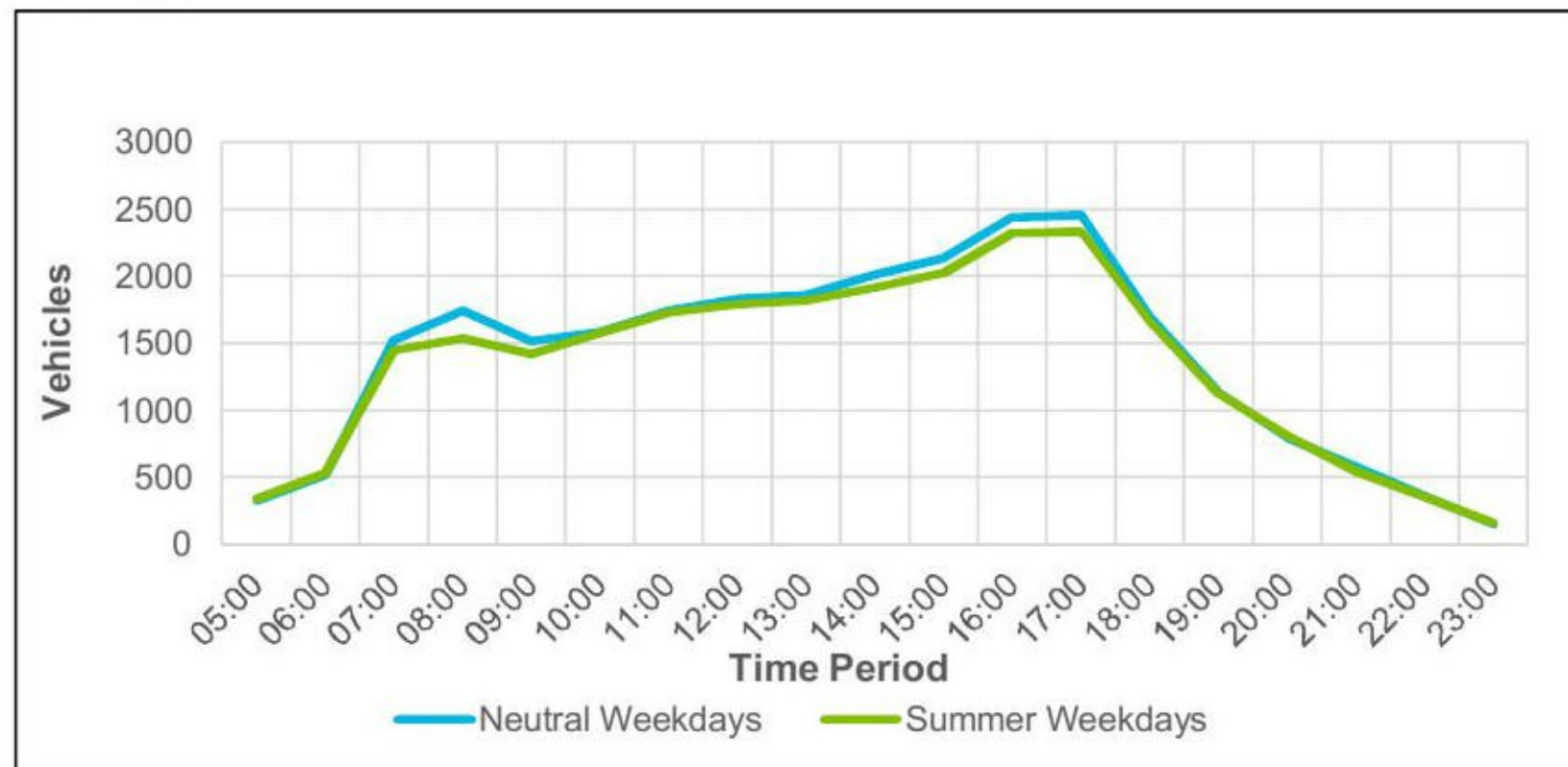
6.4.9 **Figures 6-9 and 6-10** show that there is little difference between the average weekday traffic flows when comparing a neutral weekday to a summer weekday. The neutral weekday flow is marginally larger than that during the summer.

**Figure 6-9: Comparison of Average Vehicle Flows (Eastbound) for Neutral and Summer Weekdays**





**Figure 6-10: Comparison of Average Vehicle Flows (Westbound) for Neutral and Summer Weekdays**



### Summary

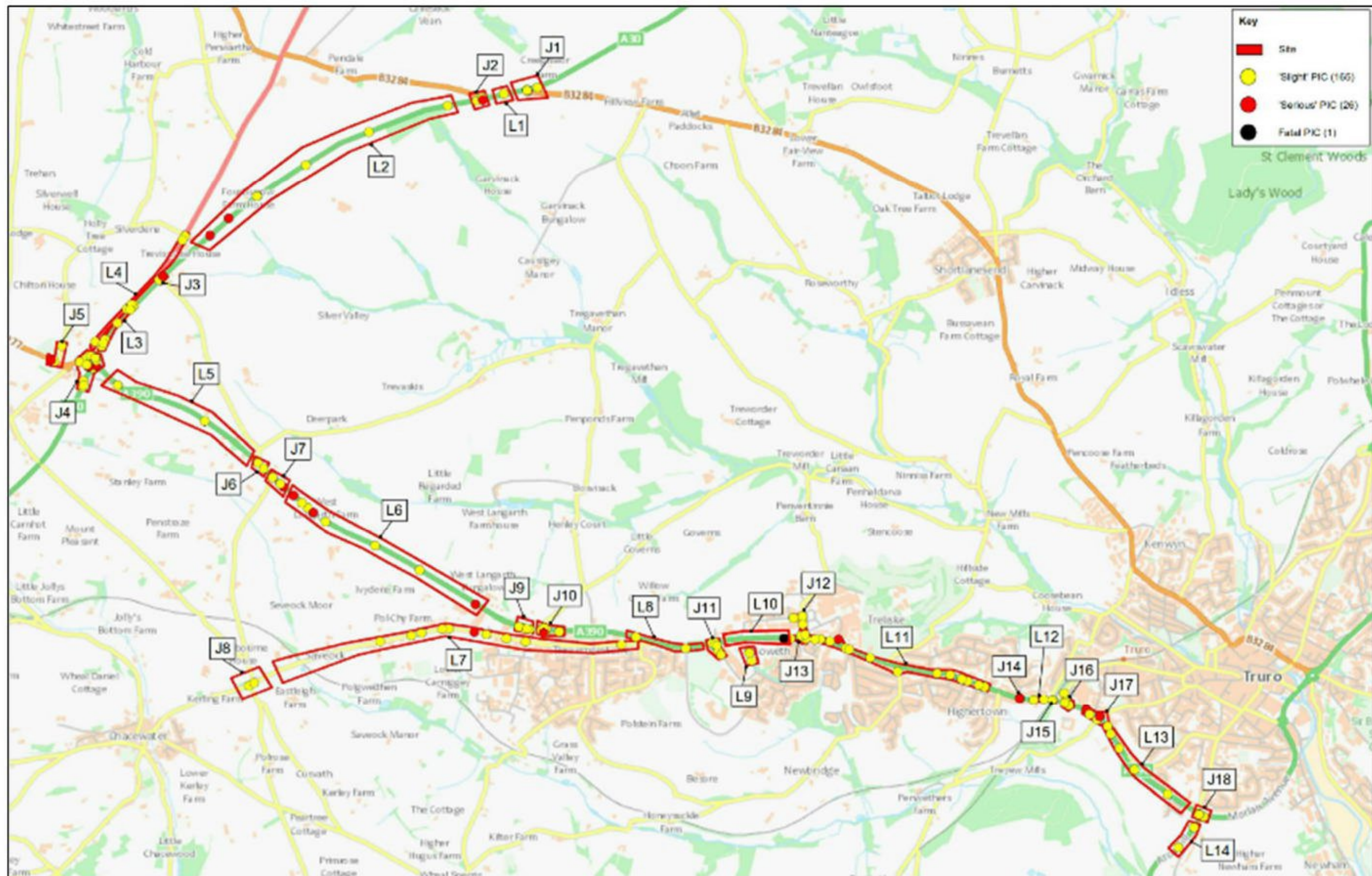
- 6.4.10 There are similarities in the daily profiles of traffic flow between neutral and summer seasons. Although Truro, and indeed Cornwall is a tourism destination, Truro has consistent traffic flows during neutral and summer months as well as weekday and weekends. It is therefore considered appropriate to use the neutral month weekday data as this is representative of the usual traffic situation in Truro.
- 6.4.11 The analysis presented is on the basis of traffic flows prior to the committed A30 CtCC scheme, which has recently been consented. This scheme includes significant changes to the existing highway network in terms of access to the A30 and level of provision on the A30 itself. This will result in changes in traffic flows on the study network, as has been examined in the DCO.

## 6.5 Highway Safety

- 6.5.1 A review of the recent road safety record for the local highway network has been carried out. The study area for the review, as agreed by the LHA during the scoping process, and the resultant accident plot locations, is shown in **Figure 6-11**. The figure also includes annotations showing how the study area has been broken down into a series of junctions and links. Each is given a unique reference for this analysis, for example J1 for a junction and L1 for a link.
- 6.5.2 The analysis covers the most recent five-year period of available Personal Injury Accident (PIA) data, provided by CC for the period 1st October 2014 to 30th September 2019.



Figure 6-11: Summary of PIAs within the Study Area (01/10/2014-30/09/2019)





## Junctions

- 6.5.3 A total of 118 PIAs were recorded at junctions within the study area over the five-year study period. Of these, 100 have been classified as 'slight', 18 as 'serious', and none as 'fatal'. Table 6-3 provides a breakdown of the PIAs by junction and severity.

**Table 6-3: Summary of PIAs at Junctions within the Study Area, by Severity**

Ref	Junction	Slight	Serious	Fatal	Total
J1	A30 / B3284 East (Chybucca)	9	0	0	9
J2	A30 / B3284 West (Chybucca)	5	1	0	6
J3	A30 / Unnamed Road (between A30 and A390)	2	1	0	3
J4	Chiverton Cross Roundabout	27	5	0	32
J5	B3277 / Chiverton Cross Garage Roundabout	2	1	0	3
J6	A390 / Unnamed Road (between A30 and A390)	3	0	0	3
J7	A390 / Unnamed Road (between A390 and Chacewater Hill)	3	1	0	4
J8	Chacewater Hill / Unnamed Road (between Chacewater Hill and Kerley Hill)	2	0	0	2
J9	A390 / Langarth P&R	4	0	0	4
J10	Threemilestone Roundabout	5	1	0	6
J11	Maiden Green Roundabout	5	0	0	5
J12	Perventinnie Lane / Oak Lane	5	1	0	6
J13	Treliske Roundabout	8	1	0	9
J14	A390 / Malabar Road	2	2	0	4
J15	A390 / Dobbs Lane	1	1	0	2
J16	Dalvenie Roundabout	4	0	0	4
J17	A390 / Chapel Hill	5	3	0	8
J18	A390 / Falmouth Road / A39 Morlaix Avenue / A39 Arch Hill Double Mini-Roundabout	8	0	0	8
<b>Total</b>		<b>100</b>	<b>18</b>	<b>0</b>	<b>118</b>

- 6.5.4 The cluster of 'slight' accidents at Chiverton Cross are mainly linked to driver error but in any event the improvement scheme, programmed for this junction, will significantly alter this junction and there are unlikely to be, as a result of the proposed development, any safety issues that will be exacerbated.
- 6.5.5 The total number of incidents, on junctions other than Chiverton Cross, are considered to be proportionate to the level of traffic on the network.

## Links

- 6.5.6 A total of 74 PIAs were recorded on links within the study area over the five year study period. Of these, 65 have been classified as 'slight' in severity, eight as 'serious' and one as 'fatal'. Table 6-4 provides a breakdown of the PIAs by link and severity.



**Table 6-4: Summary of PIAs on Links within the Study Area, by Severity**

Ref	Link	Slight	Serious	Fatal	Total
L1	A30 (between B3284 East and West)	1	0	0	1
L2	A30 (between B3284 West and Unnamed Road linking A30 and A390)	5	2	0	7
L3	A30 (between Unnamed Road linking A30 / A390 and Chiverton Cross Roundabout)	7	0	0	7
L4	A3075 (between B3284 and Chiverton Cross Roundabout)	5	0	0	5
L5	A390 (between Chiverton Cross Roundabout and Unnamed Road linking A30 / A390)	2	1	0	3
L6	A390 (between Unnamed Road linking A390 / Chacewater Hill and Langarth P&R)	5	3	0	8
L7	Chacewater Hill	10	1	0	11
L8	A390 (between Langarth P&R and Higher Besore Road)	2	0	0	2
L9	Access to Truro and Penwith College (from Chyvelah Vale)	3	0	0	3
L10	A390 (between Maiden Green and Treliske Roundabout)	0	0	1	1
L11	A390 (between Treliske Roundabout and Malabar Road)	16	1	0	17
L12	A390 (between Malabar Road and Dobbs Lane)	2	0	0	2
L13	A390 (between Chapel Hill and A39)	5	0	0	5
L14	A39 Arch Hill	2	0	0	2
<b>Total</b>		<b>65</b>	<b>8</b>	<b>1</b>	<b>74</b>

- 6.5.7 The fatality was caused when a pedestrian tried to cross the road without waiting for a green light on the pedestrian crossing. This does not suggest a problem with the highway layout or identify a specific safety issue. Signalised crossings are in place and are provided in accordance with current standards.

### Summary

- 6.5.8 The review concludes that there are no significant cluster areas where accidents have taken place, other than at Chiverton Cross. This junction is subject to a significant upgrade which should address any historical issues. Elsewhere, the number of recorded accidents, which are mainly classed as 'slight', is considered to be proportional to the level of traffic using the local network. Many PIAs have occurred as one-off or isolated events which are not considered to be indicative of any highway safety issues.
- 6.5.9 It is likely that the majority of accidents were caused by driver error and / or poor driving conditions. There is no reason to suggest that the proposed development will give rise to further highway safety concerns.



## 7. Site Accessibility and Sustainability Review

### 7.1 Introduction

- 7.1.1 This section of the TA provides a review of the site's existing accessibility to sustainable transport modes, as well as to local services and amenities.

### 7.2 Walking and Cycling

- 7.2.1 The location of the proposed development benefits from a range of walking and cycling facilities in the area in the form of footpaths, Public Rights of Way (PRoW) and on and off-road cycle routes, as can be seen in **Figure 7-1**.

- 7.2.2 In terms of cycling, there is a good level of local infrastructure provision within close proximity of the site, highlighting the potential for cycling to replace short car journeys to and from the site. This is supported by PPG 13, which recommends 5km, equivalent to 20 minutes, as a suitable distance for cycling trips. Whilst this document has been superseded by the NPPF in planning terms, this advice is still considered relevant in regard to movement and accessibility. Furthermore, the advent of e-bike and other micro-mobility technology is enabling cycling to be a genuine mode choice for longer distance trips.

- 7.2.3 Designated 'Quiet Lanes' run adjacent to, and across, the site between the P&R site and Penventinnie Lane. Bus stop locations are also shown in **Figure 7-1**.

#### Walking

- 7.2.4 The existing facilities for pedestrians are provided as shared-use footway / cycleways and continue along, or adjacent to, the A390. The provision includes:

- Shared-use facility west of Threemilestone Roundabout for approximately 200m each side of the A390;
- Shared-use facility from Chyvelah bus gate to Maiden Green Roundabout on the southern side of the A390; and
- Shared-use facility from Maiden Green Roundabout to Treliske Roundabout on both sides of the A390.

- 7.2.5 To the east of Treliske Roundabout, the A390 benefits from shared-use facilities on both sides of the carriageway. There are signalised crossing facilities at the junctions of:

- P&R access;
- Threemilestone Roundabout;
- Maiden Green Roundabout;
- Tresawls Road; and
- Treliske Roundabout.

#### Public Rights of Way

- 7.2.6 There are four PRoW (footpaths / bridleways) within the development area which provide links from the A390 into the development site, namely:

- Reference 309/21/1: Situated to the west of the scheme, it currently routes from the A390 north past Little Regarded Farm and terminates on a track that meets the C357, local road;
- Reference 309/29/1: Routes from the A390 at East Langarth Farm and runs north until it reaches and terminates at the junction with the C360 local road;
- Reference 309/28/1: Routes along a path west of Threemilestone Retail Park, between Chacewater Hill and the A390. It terminates on the A390; and



- Reference 309/31/1: Routes through Gloweth from the roundabout on Chyvelah Vale to the Treliske Roundabout on the A390. It terminates on the A390.

7.2.7 Central refuge areas are provided within the vehicle restraint barrier on the central reservation of the A390 to facilitate crossing of the road. There are no equestrian facilities on the A390.

#### National Cycle Network

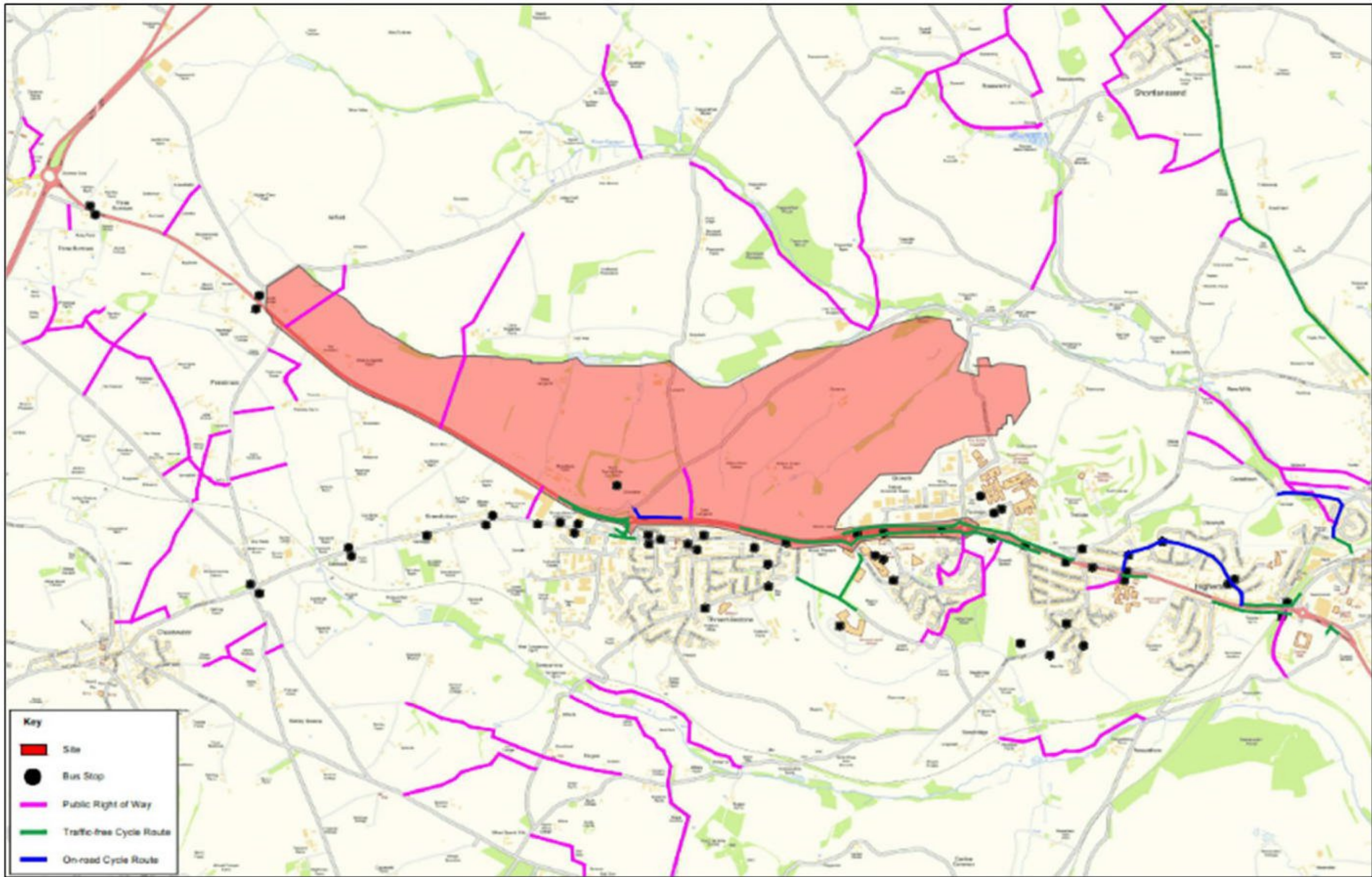
7.2.8 Notwithstanding the shared provisions documented above, there are no National Cycle Network (NCN) routes in direct proximity of the proposed development. The national routes are, however, located within 5km of the site and the local routes do provide a good level of connection to the NCN network. The NCN routes connect to the South West Coast Path, open access areas and coastal regions. The most prominent cycle routes in the area are:

- The Cornish Way (NCN Route 3 Bristol to Land's End);
- The Mineral Tramways;
- The Engine House Trail;
- The St Piran Trail;
- The Coast to Coast;
- Coosebean; and
- The Redruth and Chacewater Railway.

7.2.9 NCN Route 3 runs through Truro City Centre and links to the city's rail station. To the north of the City Centre, at Pydar Street, NCN Route 32 runs north to / from Newquay.



Figure 7-1: Existing Walking and Cycling Facilities





## 7.3 Local Services and Amenities

- 7.3.1 There are a range of service and amenities in close proximity of the proposed development and in particular towards Truro, along or adjacent to the A390.
- 7.3.2 In addition to these local facilities the proposed development will include a range of new facilities and amenities, including retail, commercial and educational establishments, which will benefit existing and future residents.
- 7.3.3 A selection of existing destinations is shown in **Table 7-1** below and their locations are shown in **Figure 7-2**. These destinations provide a range of retail, food and beverage, medical and religious facilities which will greatly benefit future residents of the proposed development.

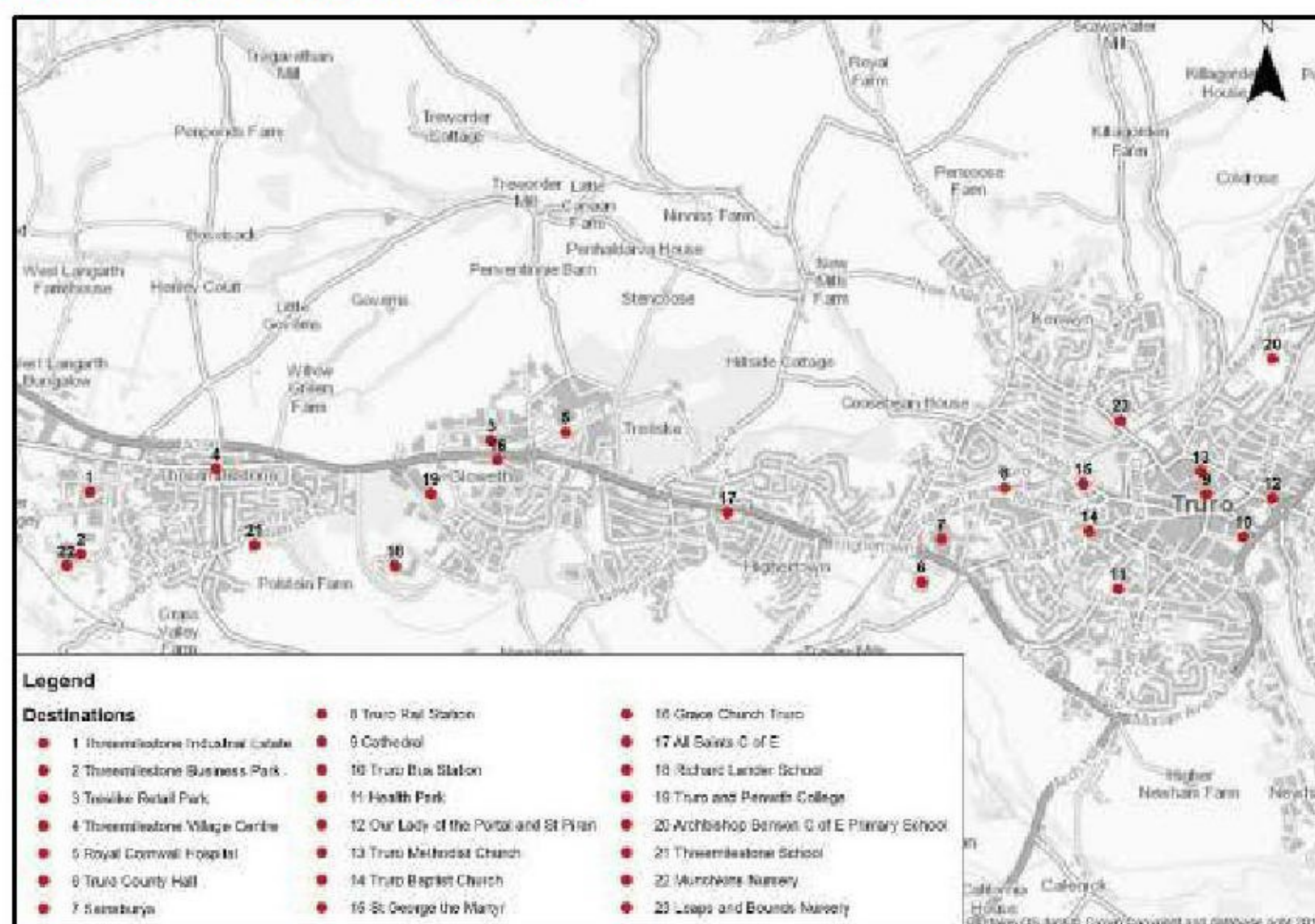
**Table 7-1: Local Facilities**

Local Facility	Approximate Distance from Site (km)	Walking Time (mins)	Cycle Time (mins)
Threemilestone Industrial Estate	0.3 - 0.5	4 - 6	1 - 2
Threemilestone Business Park	0.5 - 0.7	6 - 8	1.5 - 2.5
Threemilestone Village Centre	0.4 - 0.5	3 - 6	1 - 1.5
Treliske Business / Retail Park	1.5 - 2.0	18 - 24	4.5 - 6
Truro and Penwith College	1.3 - 1.5	15 - 24	4 - 4.5
RCHT	2.0 - 2.2	24 - 26	6 - 6.5
New County Hall	3.9	46	11
Sainsburys	3.9	46	11
Railway Station	4.3	48	12
Health Park Centre	5.2	62	16
Bus Station	5.6	67	17
Cathedral (representing the City Centre)	5.3	64	16

- 7.3.4 The local facilities along the A390 corridor and in Threemilestone and Treliske provide a good range of services within walking distance from the proposed development. As development will move eastward the distances are reduced. Access is available to retail, commercial, educational and health facilities.
- 7.3.5 The CIHT guidance *Providing for Journeys on Foot*, published in 2000, identifies 800m and 2km as the preferred maximum walking distance for shopping and school / commuting trips. For other uses, the maximum is 1.2km.
- 7.3.6 Cycling, to replace shorter car journeys, is considered suitable for journeys up to 5km, based on PPG. Although this guidance has been superseded in planning terms it is still considered relevant for assessment purposes.
- 7.3.7 Further analysis of individual destinations has been undertaken using a travel time tool, as follows.



**Figure 7-2: Local Services and Amenities**



## 7.4 Travel Time Analysis

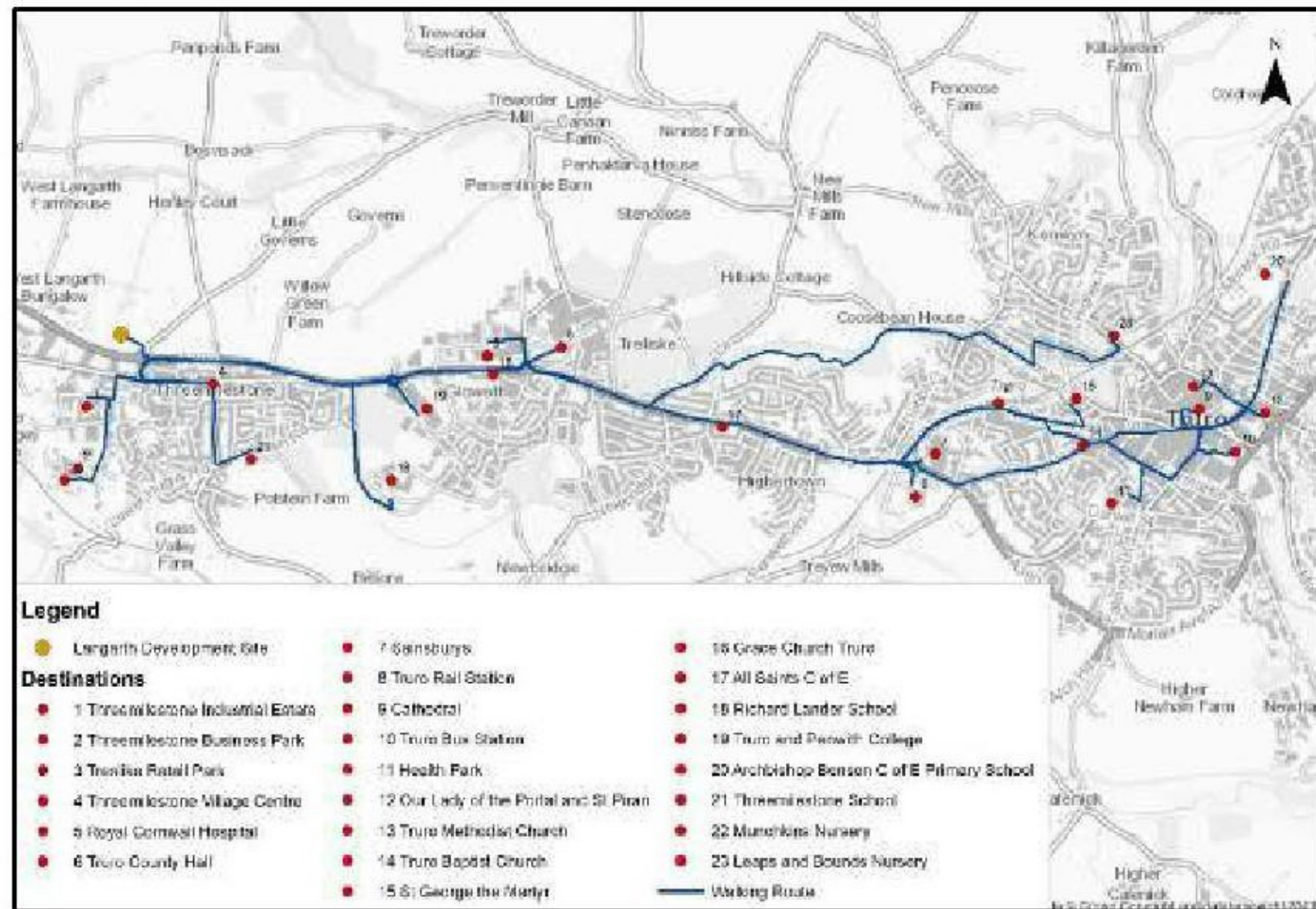
- 7.4.1 GIS analysis of travel time has been undertaken in order to illustrate the accessibility of the site by a range of modes, presented as isochrone drawings. To produce the isochrone drawings TRACC software was used and linked to GIS.
- 7.4.2 TRACC has been used to map travel distances within a certain time frame as can be seen in the figures within this report. The software covers a full range of modes of transport from walking, cycling, driving and public transport. For each of the modes we set a maximum travel time of one hour and set the contour boundaries at 10-minute intervals.
- 7.4.3 Assessments have been carried out for walking, cycling and e-bike from a central location of the site to a range of local services and amenities.

### Walking Isochrones

- 7.4.4 Walking routes are shown below in **Figure 7-3**. These routes have been derived as the most likely routes to the facilities shown in **Figure 7-2**.



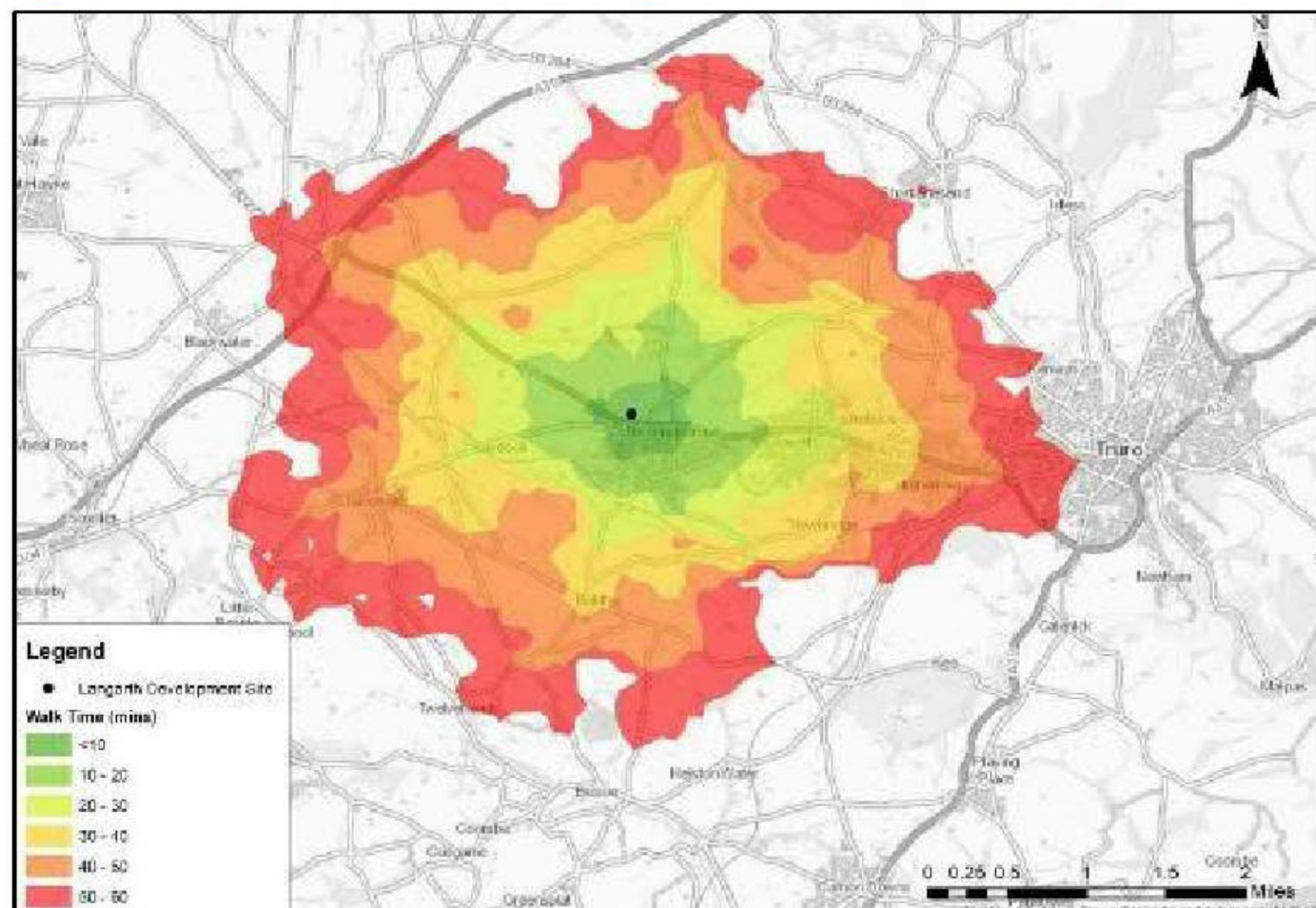
**Figure 7-3: Walking Routes to Key Destinations**



7.4.5 The TRACC software has been used to determine travel times for pedestrians to these facilities, from a central point within the proposed development site.

7.4.6 The village of Threemilestone, with its range of services and amenities can be reached on foot within 10-20 minutes, as shown in **Figure 7-4**. The majority of the retail, educational and health services on the A390 corridor are within 20-30 minutes' walk. It is possible to reach the City Centre within an hour of walking from the proposed development, at its central point. Occupants from the site, east of the centre, will benefit from a much reduced journey time.

**Figure 7-4: Isochrone Assessment for Walking from Centre of Proposed Development**

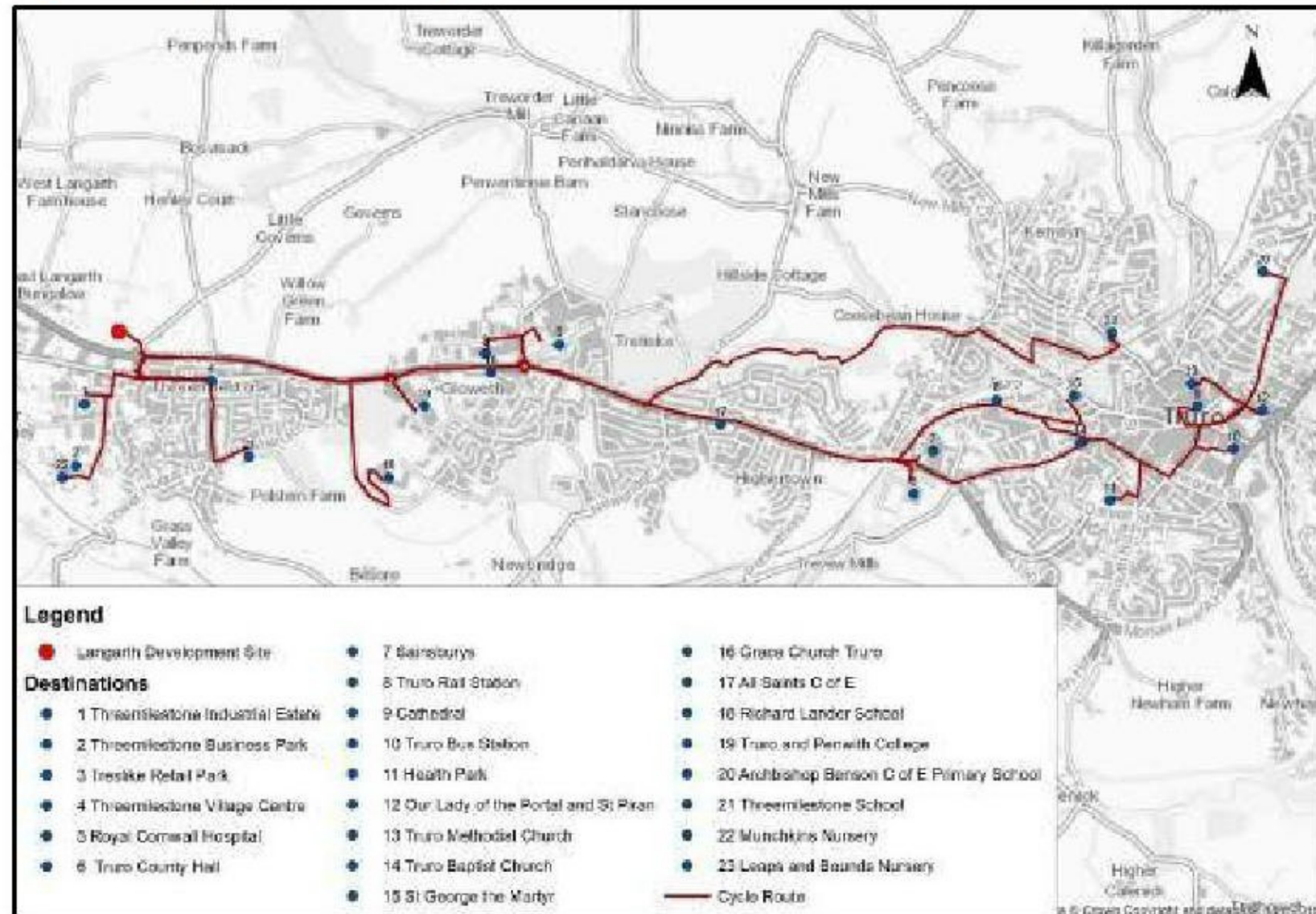




## Cycling and E-Bikes

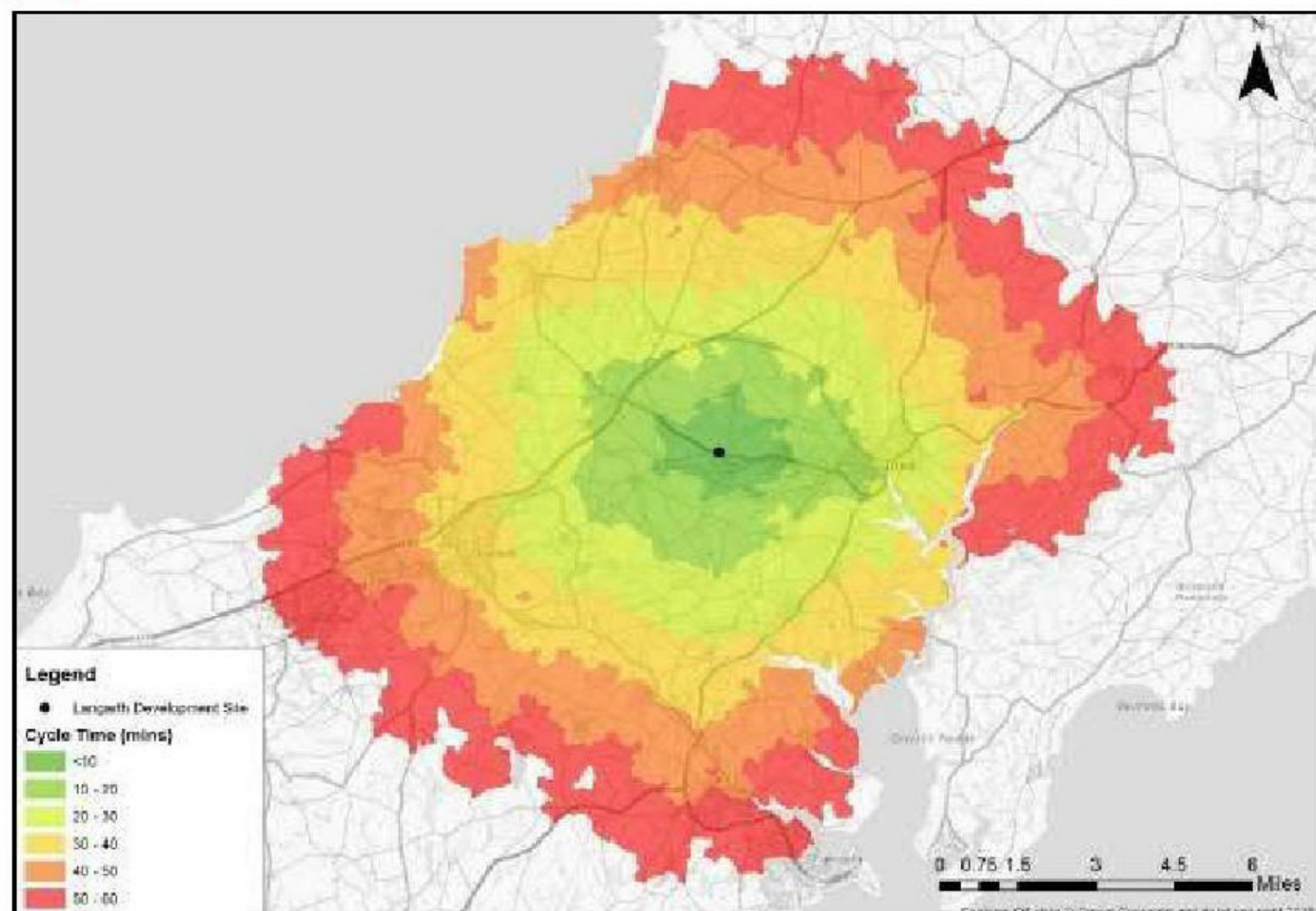
7.4.7 Cycle routes to key destinations are shown below in **Figure 7-5**.

**Figure 7-5: Cycle Routes to Key Destinations**



7.4.8 As per the walking analysis, a review of route and journey times for standard bikes and e-bikes has been undertaken, the results of which are shown in **Figures 7-6 to 7-9**. Not surprisingly, the e-bike network provides a greater range when compared to conventional bikes.

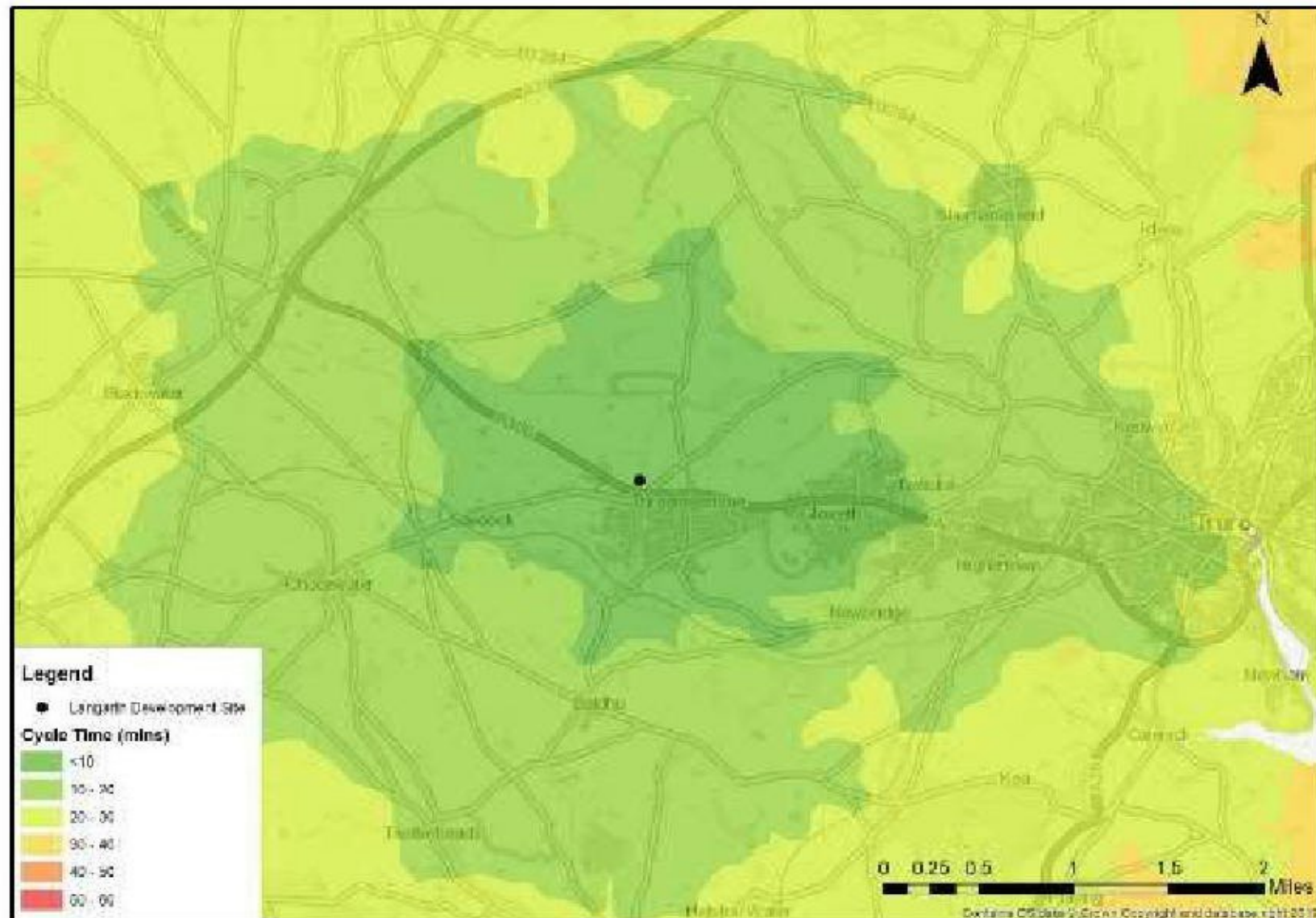
**Figure 7-6: Isochrone Assessment for Cycling from Centre of Proposed Development (Wider Area)**





- 7.4.9 Truro City Centre can be reached with 20-30 minutes cycling time, but it will take upwards of an hour to get to Camborne, Falmouth or Probus. A wide range of facilities are located within a 10-minute cycle journey from the centre of the site.

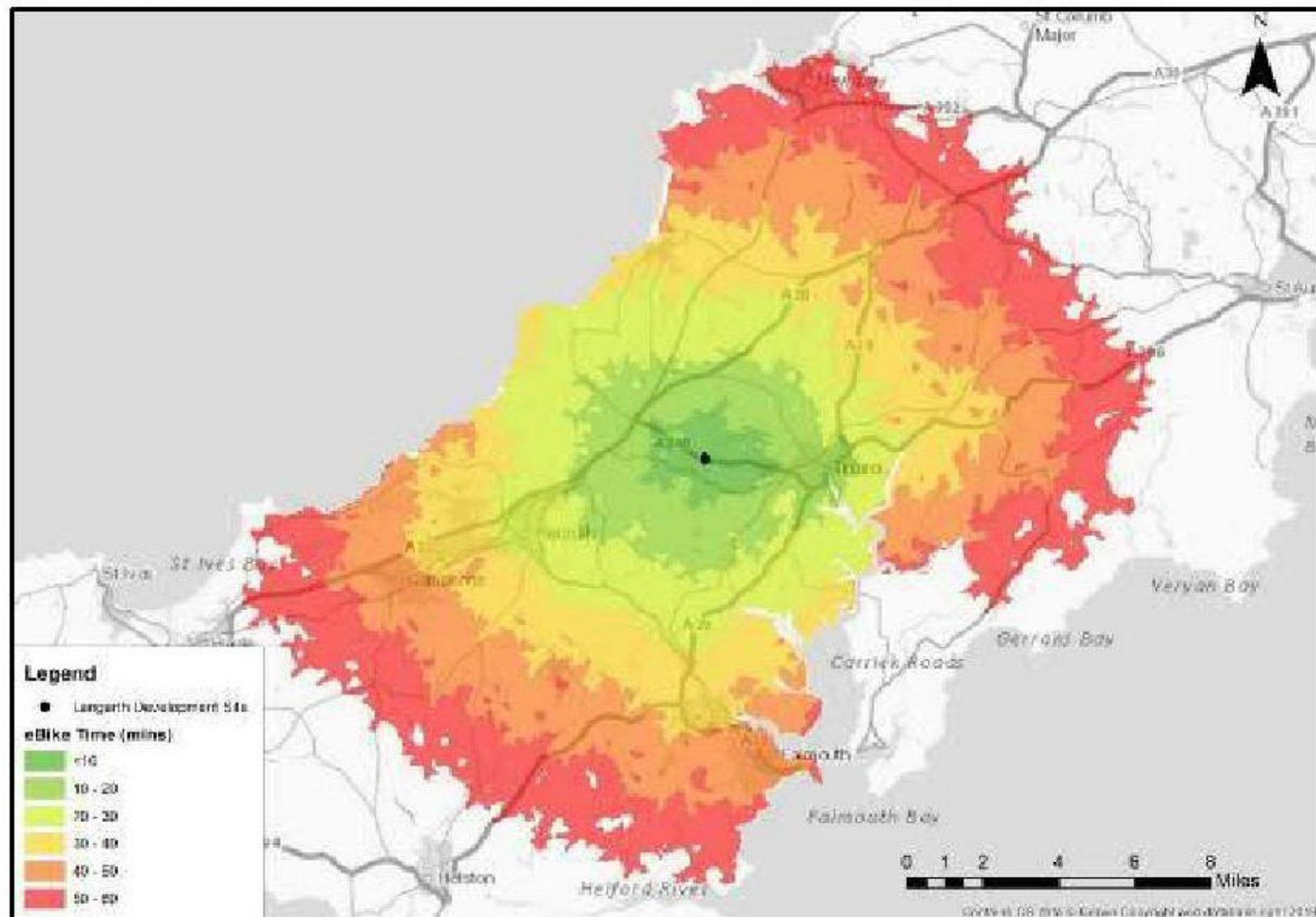
**Figure 7-7: Isochrone Assessment for Cycling from Centre of Proposed Development (Immediate Area)**



- 7.4.10 A 10-minute journey time from the centre of the site will provide access to all the services within Threemilestone as well those situated along the A390 corridor, up to RCHT.
- 7.4.11 E-bike offers a further range of locations, as they provide assistance on obstacles such as hills, thus allowing a rider to travel further, as shown in the following figures.



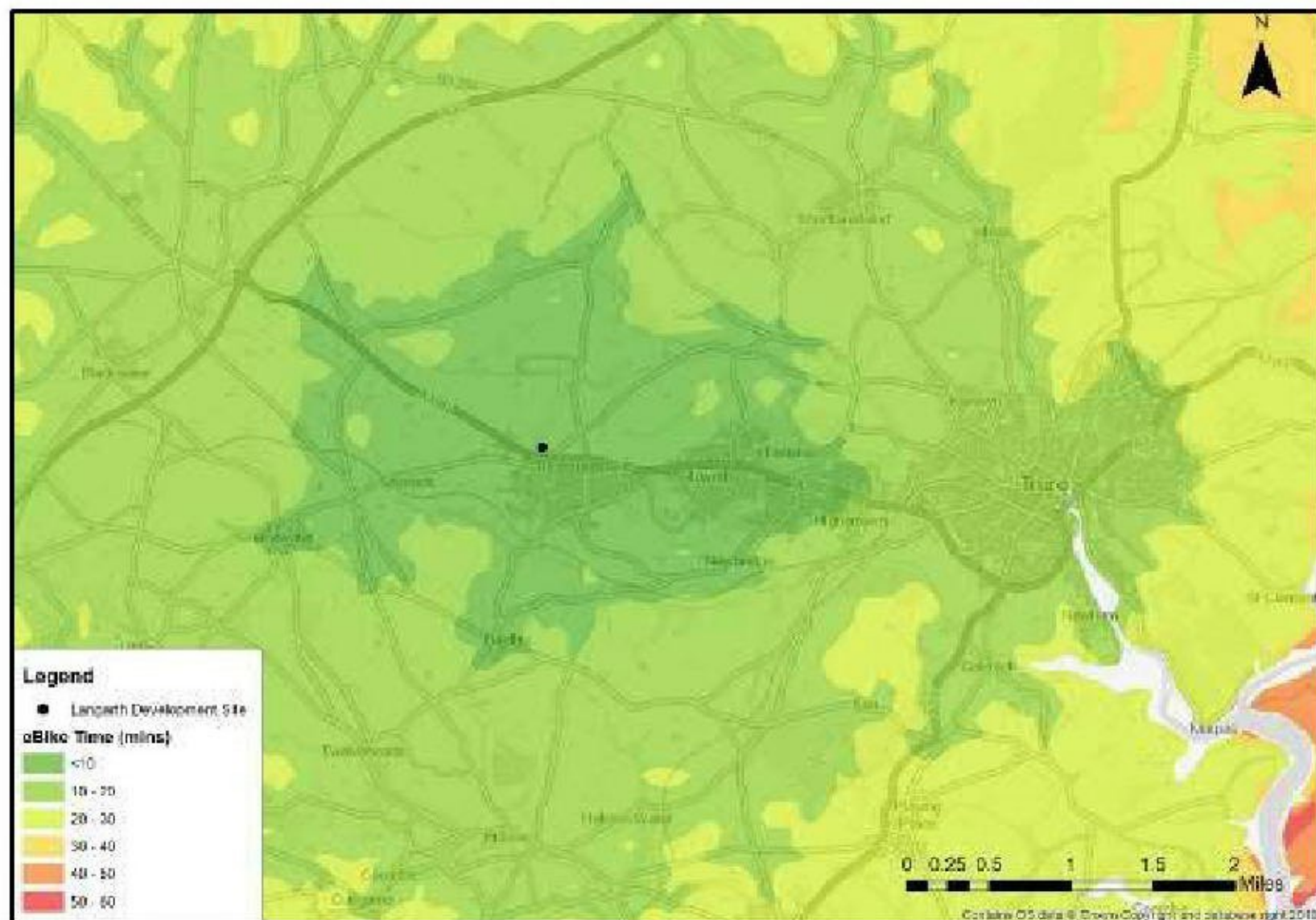
**Figure 7-8: Isochrone Assessment for E-Bike from Centre of Proposed Development (Wider Area)**



7.4.12 The range of a powered cycle increases, when compared to conventional cycling, and allows the rider to reach Newquay and St Ives on the north coast and Helford on the south coast within an hour.

7.4.13 As can be seen in **Figure 7-9** all of Truro can be reached within a 20-minute e-bike ride.

**Figure 7-9: Isochrone Assessment for E-Bike from Centre of Proposed Development (Truro Area)**





## 7.5 Public Transport Assessment

### Buses

- 7.5.1 A number of bus services operate in the local area and in particular along the A390. Local bus services operate between the A30 and Truro City Centre as well as the P&R, located at Threemilestone.
- 7.5.2 The services are listed in **Table 7-2** and routes shown in **Figure 7-10**. At the time of writing, due to COVID restrictions, it is understood that some services are running on reduced timetable or perhaps not at all. The future changes to bus travel are currently unknown but the following presents the timetable pre-COVID so, for the purposes of assessment, is considered to be reasonable to demonstrate the likely scale of bus services in the medium to long-term.

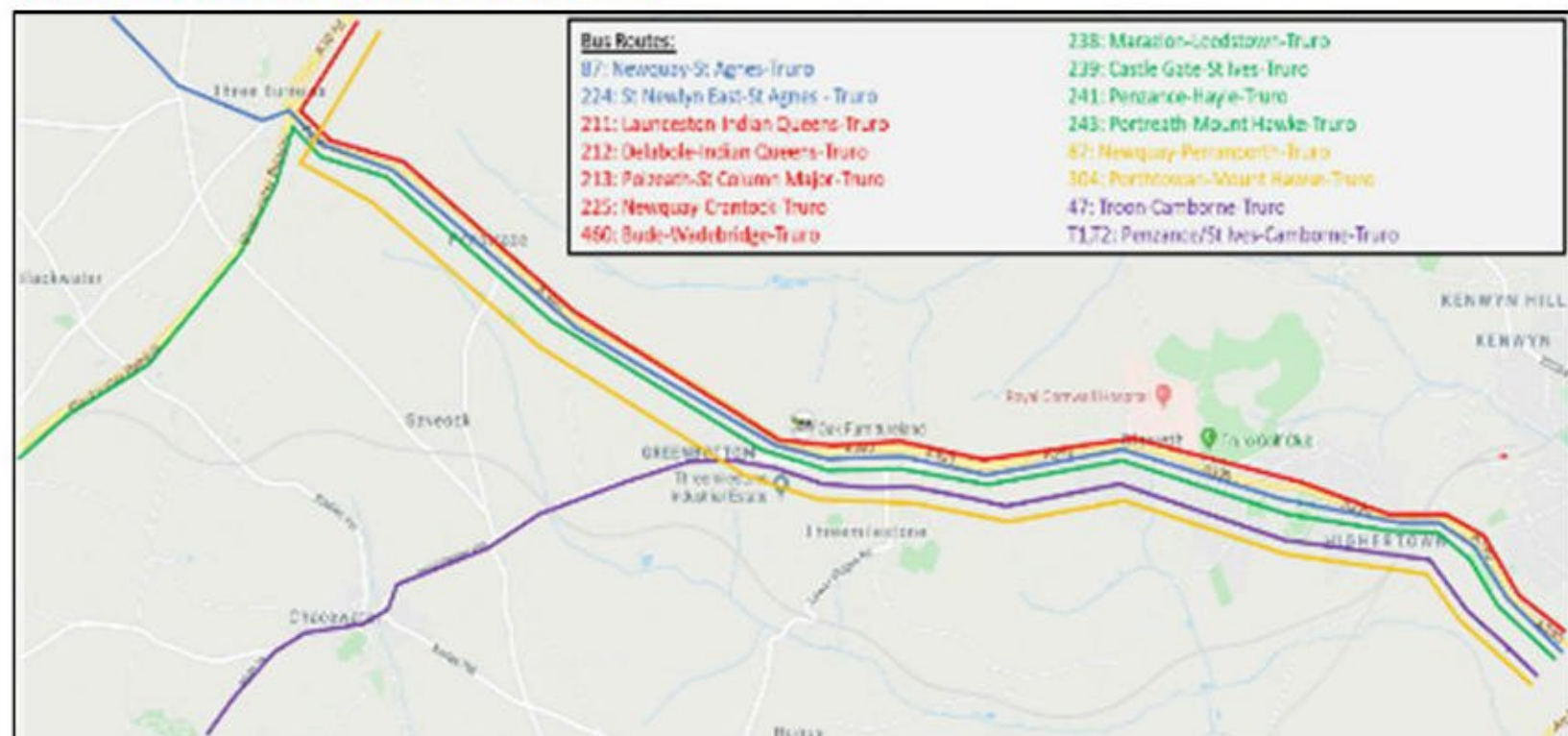
**Table 7-2: Bus Services**

Service	Route	Direction	Weekday Hours of Operation	Number of Services per Period	
				Weekday AM (0700-1000)	Weekday PM (1600-1900)
Public Bus Services					
47	Camborne – Redruth – Truro	Towards Truro	06:50 – 23:50	5 buses	3 buses
		Towards Camborne	08:03 – 23:03	1 bus	3 buses
87	Newlyn – St Agnes – Truro	Towards Truro	07:37 – 18:38	3 buses	3 buses
		Towards Newquay	07:22 – 18:22	3 buses	3 buses
304	Porthtowan – Mount Hawke – Truro	Towards Truro	08:25 – 17:25	1 bus	1 bus
		Towards Porthtowan	09:20 – 17:55	1 bus	1 bus
T1	Penzance - St Erth – Camborne – Redruth – Chacewater – Truro	Towards Truro	06:37 – 19:07	5 buses	3 buses
		Towards Penzance	07:21 – 19:51	2 buses	3 buses
T2	St Ives – Carbis Bay – Camborne – Redruth – Chacewater – Truro	Towards Truro	10:37 – 18:37	0 buses	3 buses
		Towards St Ives	07:51 – 16:51	3 buses	1 bus
School Bus Services					
211	Launceston – Indian Queens – Truro College	Towards Truro	School Bus	1 bus	0 buses
		Towards Launceston	School Bus	0 buses	1 bus
212	Delabole – Indian Queens – Truro College	Towards Truro	School Bus	1 bus	0 buses
		Towards Delabole	School Bus	0 buses	1 bus
213	Polzeath – Wadebridge - St Columb Major – Truro	Towards Truro	School Bus	1 bus	0 buses
		Towards Polzeath	School Bus	0 buses	1 bus
224	St Newlyn – Goonhavern – Perranporth – Truro	Towards Truro	School Bus	1 bus	0 buses
		Towards St Newlyn	School Bus	0 buses	1 bus
225	Newquay- Crantock – Truro	Towards Truro	School Bus	1 bus	0 buses
		Towards Newquay	School Bus	0 buses	1 bus
238	Marazion – Leedstown – Truro	Towards Truro	School Bus	1 bus	0 buses
		Towards Marazion	School Bus	0 buses	1 bus
239	Castle Gate – St Ives – Lelant – Connor Downs – Truro College	Towards Truro	School Bus	1 bus	0 buses
		Towards Caste Gate	School Bus	0 buses	1 bus
241	Penzance – Hayle – Truro College	Towards Truro	School Bus	1 bus	0 buses
		Towards Penzance	School Bus	0 buses	1 bus
243	Portreath – Mount Hawke – Truro College	Towards Truro	School Bus	1 bus	0 buses
		Towards Portreath	School Bus	0 buses	1 bus
460	Bude – Wadebridge – Truro	Towards Truro	School Bus	0 buses	1 bus (Friday only)
		Towards Bude	School Bus	1 bus (Monday only)	0 buses

- 7.5.3 The bus routes, relevant to the proposed development are shown in **Figure 7-10**.

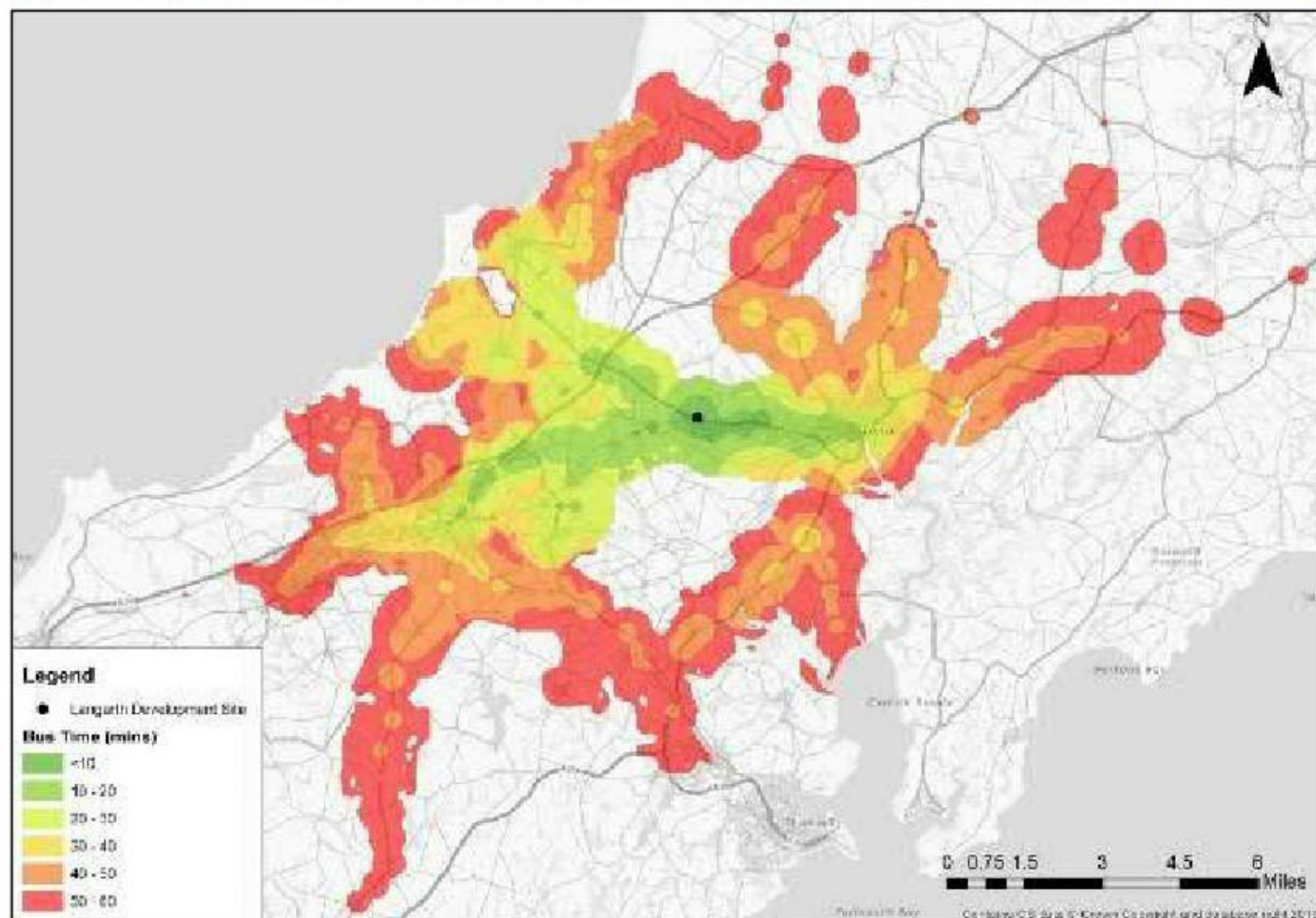


Figure 7-10: Local Bus Service Routes



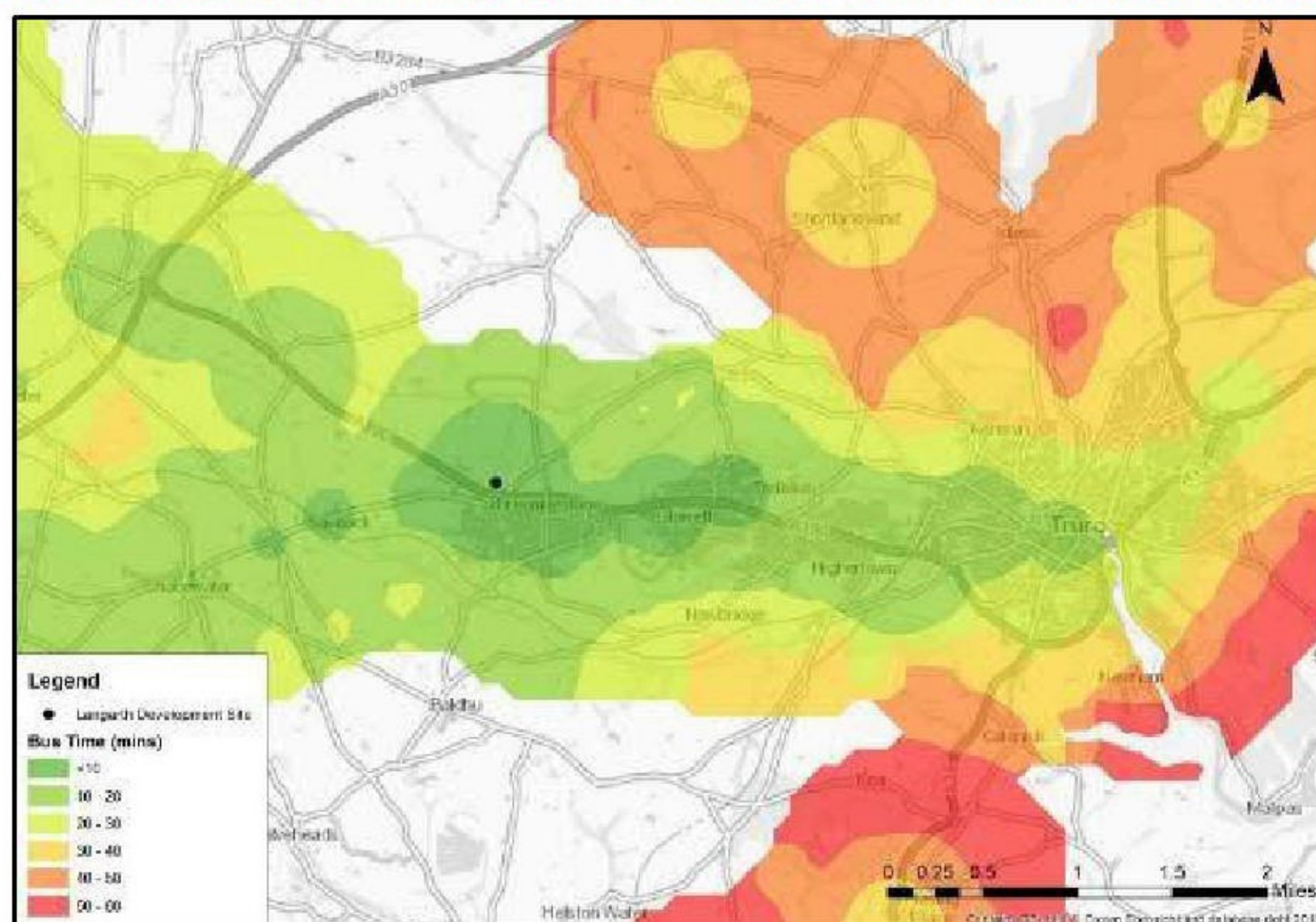
- 7.5.4 An isochrone assessment, using the TRACCS system, was carried out to demonstrate the accessibility by bus from a central point within the proposed development. **Figure 7-11** shows that the majority of central Cornwall is accessible within 60 minutes and most of Truro can be accessed by bus within 10 to 20 minutes.

Figure 7-11: Isochrone Assessment for Bus from Centre of Proposed Development (Wider Area)



- 7.5.5 The main shopping centre of Truro can be reached by bus within 20 minutes from the centre of the site as well as Redruth. A journey of up to 30 minutes provides access to St Agnes and Pool. Within an hour the use of the bus could reach as far Camborne, Ponsanooth, and Porthtowan.
- 7.5.6 More local to the site, **Figure 7-12** shows that access to nearby facilities, such as shops and services and RCHT are all located within a 10-minute bus journey from the proposed development scheme.



**Figure 7-12: Isochrone Assessment for Bus from Centre of Proposed Development (Truro Area)**

## Rail

- 7.5.7 The nearest railway station to the scheme is Truro Railway Station which is located on Portland Road to the southwest of the development. The station operates Great Western and Cross-Country services to destinations including Plymouth, Falmouth Docks, Penzance, Exeter St David's, Bristol, Birmingham, Cardiff Central, London Paddington and the North.
- 7.5.8 **Table 7-3** provides a summary of the services available from these rail stations and their frequencies (pre-COVID).

**Table 7-3: Rail Services**

Destination	Approximate Frequency			
	Weekday AM Peak (08:00-09:00)	Weekday PM Peak (17:00-18:00)	Average Saturday	Average Sunday
Plymouth	30 minutes	30 minutes	30 minutes	30 minutes
Falmouth Docks	30 minutes	30 minutes	30 minutes	60 minutes
Penzance	30 minutes	30 minutes	30 minutes	30 minutes
Exeter St Davids	20-60 minutes	35-60 minutes	30 minutes	40 minutes
Cardiff Central	60 minutes	60 minutes	60 minutes	30 minutes
London Paddington	20-60 minutes	60 minutes	60 minutes	45 minutes

## 7.6 Summary

- 7.6.1 The site is considered to be highly accessible by a range of means. There is a wide of range of services and amenities in close proximity to the site, providing retail, commercial, educational and health provisions for future residents.
- 7.6.2 The isochrone analysis within this chapter shows that services and amenities are available with access by a range of modes at reasonably attractive journey times. Bus services, including the P&R, provide access to the City Centre and locations further afield whilst walking and cycling offer access to a selection of local amenities within a range of up to 20 minutes depending the location of the origin.
- 7.6.3 It can be considered that the site is highly accessible when using active travel modes of travel and public transport.



## 8. Development Proposal

### 8.1 Development Principles

- 8.1.1 The proposed development will be built upon the principles of sustainable development.
- 8.1.2 CC has sought Capital Funding to acquire some of the land from individual developers and to act as 'master developer' to ensure that the whole site is master-planned appropriately. The vision is for a high level of sustainable accessibility both within the development, into Truro and to the south of the A390 into Threemilestone Village and Business Park / Industrial Estate, to the benefit of existing and future residents. By taking control of the land the quality and ambitions of the proposed development, to not just be a series of generic housing estates, can be developed and delivered.
- 8.1.3 The planning will involve delivering a substantial level of complementary land uses, alongside the housing, in order to minimise the need to travel off-site. This includes sufficient flexibility to adapt to future market conditions and potential changes in travel patterns and behavioural change. Additionally, the access strategy, masterplan design, and transport strategy offer substantial opportunities for travel by sustainable modes.
- 8.1.4 The primary focus of the development strategy is to provide priority to pedestrians, cyclists and sustainable travel choices before considering private vehicles, especially single occupancy vehicles. Integration with the wider CC initiatives, delivered as part of the TTS, are vital to the successful of the development.
- 8.1.5 Vehicular access will be provided with construction of new junctions from the A390, at the west, and through local roads to the east. The site will be served, in full, by the proposed NAR. Secondary and tertiary routes will ensure a permeable development is provided with additional links to the A390. As described in this section.
- 8.1.6 The planning application for the proposed development is made as a Hybrid application and contains a mixed-use residential led masterplan, which is included as part of the submission document. The land use plan is shown in **Figure 8-1** and provided at larger scale at **Appendix A**.



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## 8.2 Development Schedule

- 8.2.1 The proposed development schedule is provided as 'up to' values to provide future flexibility. Therefore, during any subsequent Reserved Matters Application (RMA), the actual quantum of development will be up to the levels included within this assessment but will not exceed them. The development schedule is shown in **Table 8-1**.

**Table 8-1: Development Schedule**

Land Use		Use Class		Quanta
		Up to 31/08/2020	From 01/09/2020	
Retail		A1	E	1,600sqm GIA
Financial and Professional Services		A2	E	500sqm GIA
Food and Beverage		A3	E	500sqm GIA
		A4	Sui generis	
		A5	Sui generis	
Office		B1a	E	15,500sqm GIA
Dwellings (Private / Market and Affordable)		C3	C3	Up to 3,550 dwellings, plus 200 extra-care dwellings 50 specialist / key worker dwellings (for use by student health workers and other key workers).
Primary School		D1	F.1	1,140 pupils
Local Care Health Centre		D1	E	3,000sqm GIA
Community Hall / Library		D1	F.1	300sqm GIA
Community Farm		D1	F.1	100sqm GIA
Additional Community (within local centres)		D1	F.1	2,400sqm GIA
Ambulance Station / Blue Light Service		D1	E	1,700sqm GIA
Leisure		D2	F.2	6,380sqm GIA
Heath and Sport Quarter	Retail	A1	E	1,960sqm GIA
	Food and Beverage	A3	E	1,040sqm GIA
		A5	Sui generis	
		Microbrewery	A4	

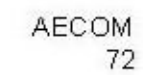
Notes: For most land uses, the development quantum has been provided as Gross Internal Area (GIA) which has been used as a reasonable proxy for Gross Floor Area (GFA) for the purposes of this assessment.

- 8.2.2 The proposed development also includes an extension (600 spaces) to the Langarth P&R, to be funded through financial contributions secured under a Section 106 agreement.

## 8.3 Access

- 8.3.1 The access and movement strategy is shown in **Figure 8-2** and is included at larger scale at **Appendix B**. The wider movement strategy is shown in **Figure 8-3** and is included at larger scale at **Appendix C**. Vehicular access into the development will be provided at the west, via the NAR from the A390 which routes through the site and connects onto Penventinnie Lane in the east. Other access points for both vehicle and non-vehicle access will be provided. Pedestrian routes will permeate the site, connect to the A390 at various locations and look to match desire lines between complementary land uses.
- 8.3.2 The NAR will provide a primary route through the site with secondary and tertiary links complementing the access and movement strategy within the development. Cycle routes and footways will play a key part in the connectivity of the site providing an integrated and permeable scheme.
- 8.3.3 The strategy for the proposed development provides a closely linked walkable neighbourhood with strategic links to the A390 and associated facilities. The proposed development will provide a range of measures to promote sustainable travel and the principles of MfS / MfS2 have been used to inform the design parameters for the road network within the scheme. A number of crossing points and connections are provided to reduce the potential barrier effect of the A390.
- 8.3.4 PRoW continue through the site and beyond to connect to and enhance existing provisions whilst public transport services will be integrated through the proposed development.



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## 8.4 Key Infrastructure Provision

### Introduction

- 8.4.1 The access and movement strategy shows a number of access points on to the A390 or adjacent roads. These provide a mix of general vehicle access and also sustainable access links, for pedestrians, cyclist and buses where appropriate.
- 8.4.2 The proposed access arrangements are shown in **Table 8-2** and described in further detail thereafter. The access references in the TA are for discussion purposes.

**Table 8-2: Proposed Access**

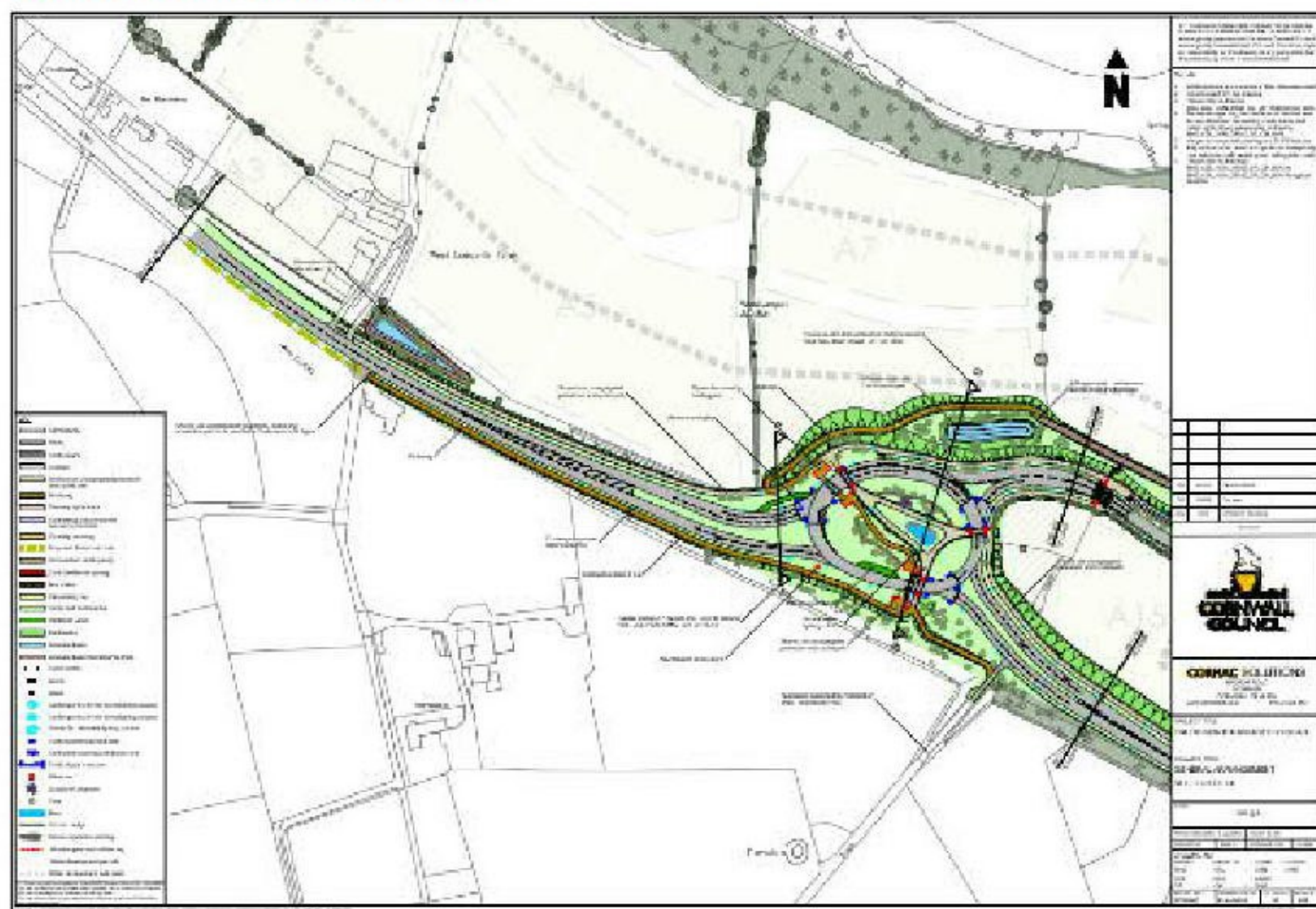
Access Reference	Type	Location
A	All Users	A390 (West Langarth)
E		A390 (Higher Besore Road)
F		Oak Lane (Treliske Industrial Estate)
G		Penventinnie Lane
B (ILR)	Bus Gate (after 300 dwellings)	A390
C	Sustainable access (pedestrian / cycle)	P&R
D		East Langarth Farm

- 8.4.3 Larger scale drawings of the NAR and proposed access junctions are included at **Appendix D**, with extracts provided below to assist review.

### West Langarth Junction (Access A)

- 8.4.4 The western end of the NAR, at West Langarth, will be delivered as a signalised all-movement junction, as shown in **Figure 8-4**. The junction has been designed in accordance with DMRB standards and a Road Safety Audit (RSA) has been undertaken; the RSA and Designer Response can be supplied on request during the determination phase. The full design will be subject to full technical review by the LHA under the relevant sections of the *Highways Act 1980*.

**Figure 8-4: West Langarth Junction**



- 8.4.5 Non-Motorised Users (NMUs) and public transport have been key considerations in the design to provide adequate crossing facilities and bus priorities where appropriate.

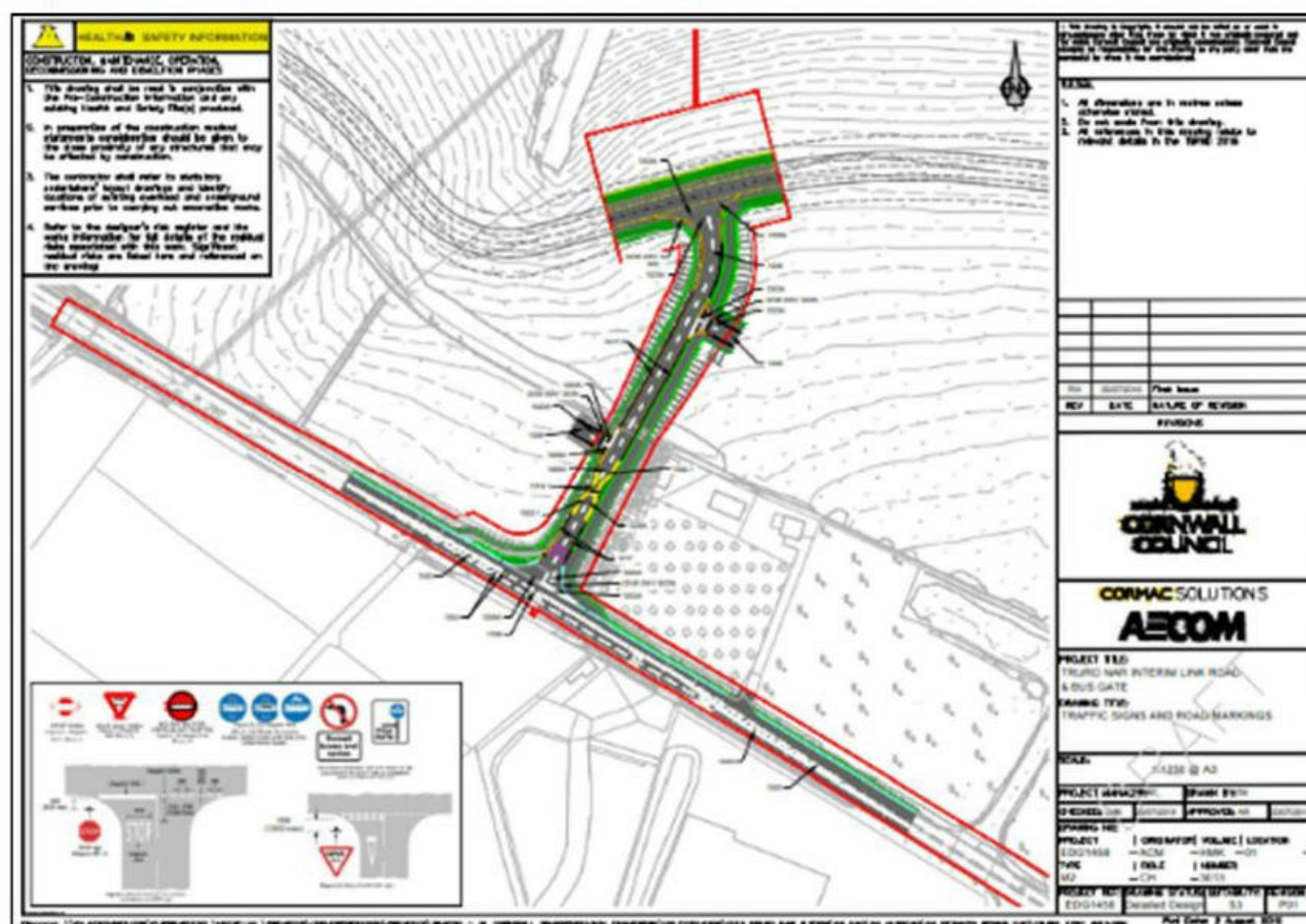


- 8.4.6 The junction takes the form of a signalised roundabout providing access to the NAR from the A390. The east-bound entry has three lanes whereas all other entry / exits have two lanes. Connections to existing footways and bridleways are provided with Pegasus crossings provided accordingly.
- 8.4.7 The NAR will provide a primary means of access through the entire site but also offer a sustainable route for all users. The design speed has been set at 20mph to facilitate safe pedestrian movements and a segregated cycle lane will be delivered along its length to provide connection to on and off-road cycle routes into Truro and the local area.
- 8.4.8 Footways along the NAR and on internal roads will, in addition to the cycleways, provide full access through the development and into the P&R Hub.
- 8.4.9 The NAR will include a network of bus stops, each with RTPI and shelters to provide users with live, up-to-date, timetable service information.
- 8.4.10 There are aspirations as part of the Saints Trails project, to provide a bridge over the A390 for pedestrians, cyclists and equestrians but this is to be developed separately. Land is being made available within the masterplan to accommodate the landing point on the northern side of the A390 should this be required in the future.

### Interim Link Road

- 8.4.11 Access at the ILR will be provided by way of an all-movement junction, as shown in **Figure 8-5**. The primary purpose of the ILR is to facilitate early construction on the Langarth site in advance of the West Langarth Junction, which will ultimately be the principal access. It has been demonstrated that the ILR can provide highway capacity sufficient to facilitate the occupation of up to 300 dwellings, should the opening of the West Langarth junction be delayed. Upon opening of the NAR, the section of the ILR to the south of the western development plot access will be restricted to buses only (controlled by a bus gate). The remaining ILR to the north of this location will be retained as vehicular access to the adjoining development plots.

**Figure 8-5: Priority Junction to Interim Link Road (Reference: PA20/00009)**

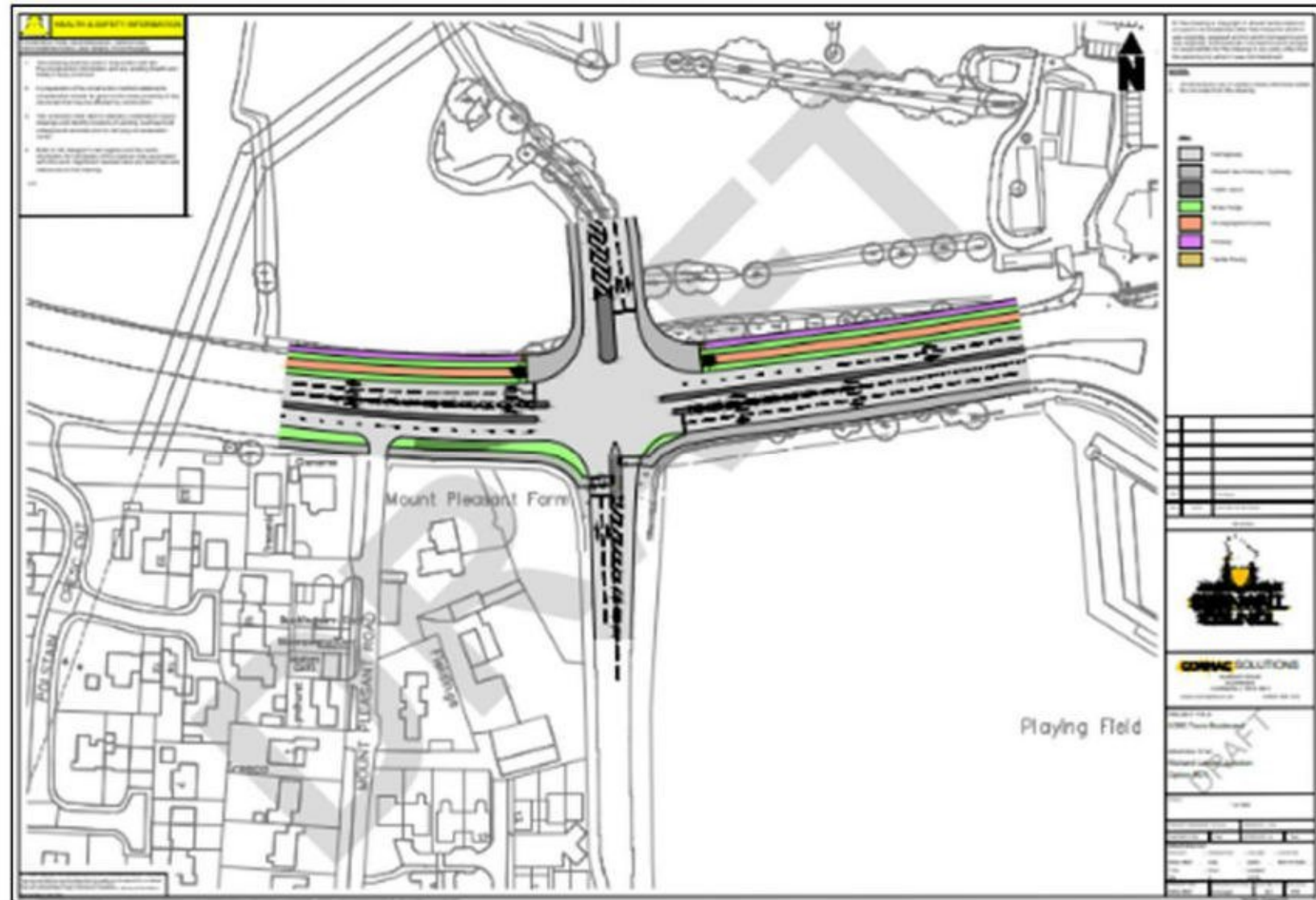




### A390 / Higher Besore Road (Access E)

- 8.4.12 The existing junction at Higher Besore Road will be upgraded to a fully signalised all-movement crossroads junction, as shown in **Figure 8-6**; this is an indicative layout at present but the form as shown is generally what will be provided. This will include right-turn lanes into the site and the existing school. Cycle lanes and a segregated footway is proposed on the northern side of the A390, connecting to a shared facility into the proposed development. Shared-use facilities will continue along the southern side of the A390, whilst a signalised crossing on the side road provides a continuation of the route.

**Figure 8-6: A390 / Higher Besore Road / NAR Junction**

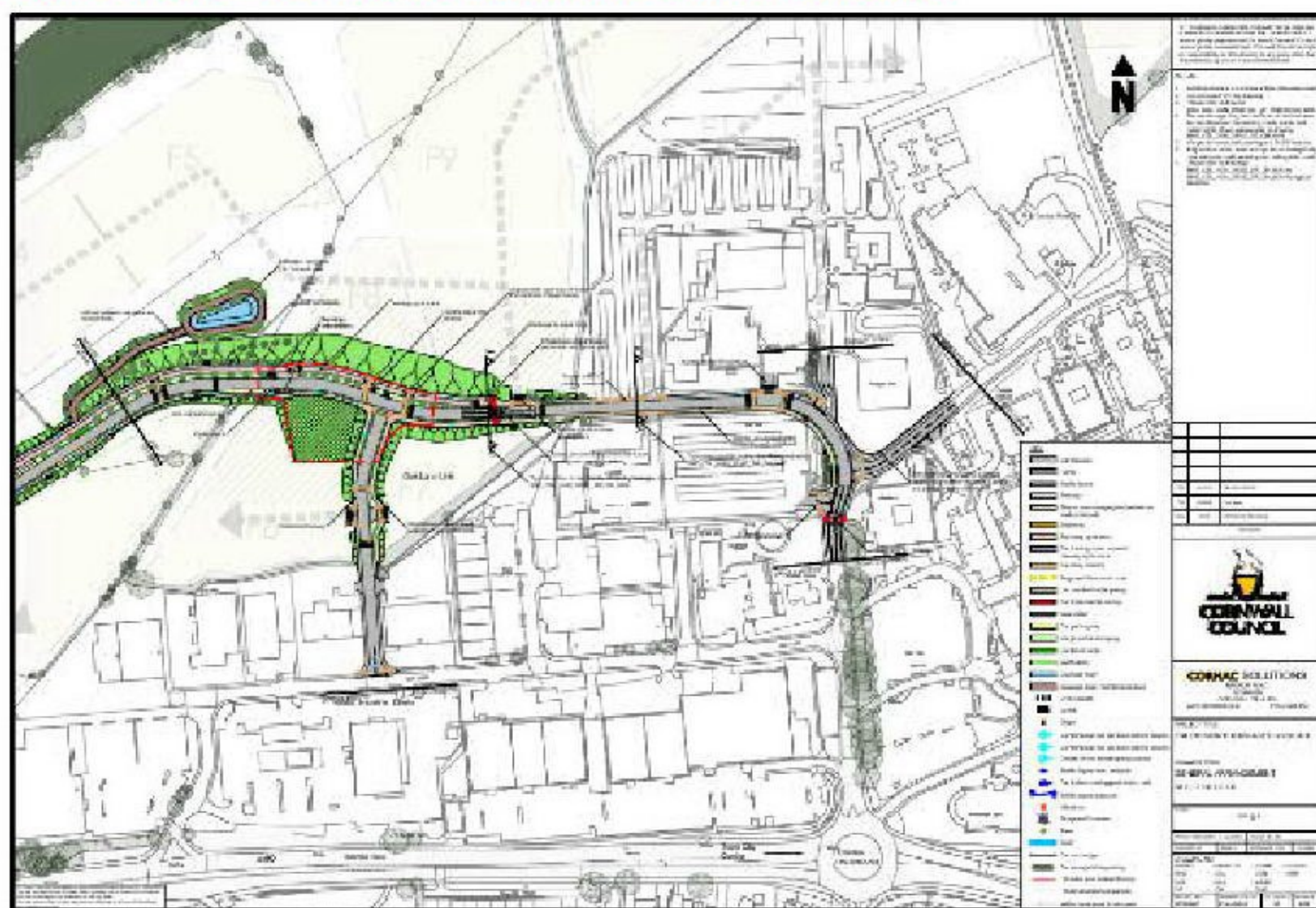


### Oak Lane (Access F) and Penventinnie Lane (Access G)

- 8.4.13 Access onto Oak Lane (at Treliske Industrial Estate) will be via a standard priority T-junction, with footways on both sides. Appropriate provision for crossing movements will be included, to be set out at the detailed design stage.
- 8.4.14 The eastern section of the NAR comprises a change in priorities and alignment of Penventinnie Lane. The NAR will be provided with priority, above any side roads, and ties into the existing Penventinnie Lane adjacent to Cudmore House. A zebra crossing will be provided at this point providing a safe crossing facility between the car park and Hospital Laboratory. Tactile paving will be provided on all junctions in the area with cycle ramps providing access from the carriageway onto a shared footway / cycleway, which runs from the NAR.
- 8.4.15 Both the Oak Lane (Access F) and Penventinnie Lane (Access G) junctions are shown in **Figure 8-7**.



**Figure 8-7: Oak Lane / NAR and Penventinnie Lane / NAR Junctions**



### Pedestrian / Cycle Access

- 8.4.16 The proposed development will be designed to be highly accessible and permeable for pedestrians and cyclists. Provision will be made to connect to the P&R site, and its existing network of pedestrian and cycle routes (Access C). A further link is proposed at East Langarth Farm (Access D) providing a continuation of the bridleway, with connecting informal crossing across the A390.
- 8.4.17 The movement and access strategy within the site has been determined from the outset to ensure walking and cycling is at the forefront of choice in terms of travel. A number of sustainable links will be provided as part of the development ensuring full connection to existing facilities in the vicinity of the site, such as RCHT and at Threemilestone. An overview of the pedestrian / cycle network is provided in **Figure 7-2**, which will be accompanied by off-site improvements (to be delivered either directly or via financial contributions), shown on the wider movement strategy at **Figure 8-3** and **Appendix C**. Both the pedestrian / cycle network within the site and the potential off-site improvements are discussed further at **Chapter 9**.

### Public Transport

- 8.4.18 The proposed development will promote access to public transport for new and existing residents in the area. The NAR will provide a new bus route with priority measures onto the A390 included.
- 8.4.19 Bus stops on the NAR will be constructed with RTPI and sheltered waiting facilities. A bus gate is proposed at the ILR following the occupation of 300 dwellings.
- 8.4.20 As shown in **Figure 8-2**, the proposed street network will ensure that all residents can access a bus service within 400m, which is the recommend distance contained within the CIHT's *Providing for Public Transport for Developments*, published in 1999. A significant area of the development is also within 200m of a bus stop. The provision of internal bus routes provides for the additional coverage required as a result of the increased population without putting extra pressure on existing services, which can be busy during peak pre-COVID times.
- 8.4.21 The intended frequencies of the buses serving this route, and through the development, will be discussed and agreed with the providers to ensure a service is provided from first occupation. Residents should see the benefits of the bus service and its associated priorities, offering cost and time saving efficiencies. Details of the service requirements and any necessary funding pump-priming is anticipated to be negotiated as part of a Section 106 agreement, with some further discussion at **Chapter 9**.



## 8.5 Proposed Parking Strategy

### 8.5.1 The NPPF states that:

*“If setting local parking standards for residential and non-residential development, policies should take into account:*

- a) the accessibility of the development;*
- b) the type, mix and use of development;*
- c) the availability of and opportunities for public transport;*
- d) local car ownership levels; and*
- e) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.”*

8.5.2 Car parking is fundamental to the successful delivery of the sustainable garden village philosophy. Too much parking supply and vehicle ownership and car use could be inadvertently encouraged, whereas too little could give rise to capacity issues and indiscriminate parking.

8.5.3 An overarching parking strategy has been developed as part of the Design Codes for the proposed development, so as to establish a consistent approach to the parking provision and management of spaces throughout the development.

8.5.4 An enforcement regime will be necessary to identify a range of measures required to control parking throughout the development and the surrounding areas, where overspill parking will need to be prevented.

8.5.5 The parking strategy caters for cars and cycles, and will ensure provision of infrastructure required for charging of modern technologies, such as electric-powered vehicles. Charging provision will be implemented throughout the development.

### Vehicles

8.5.6 Parking for all types of required vehicles will be provided throughout the development to ensure a consistent and managed approach. Parking can quite often be the most problematic design issue as drivers tend to park in the first available space. Careful design and demand-led provision will provide a suitable level of parking and ‘design out’ overspill or indiscriminate parking.

8.5.7 Car parking standards / design will relate to the character of different areas under the Design Codes. These will, in turn, link to both the type of housing and proximity to key public transport corridors. On-plot parking will be flexible and people’s garden plots will be capable of adaptation where demand for car use reduces. The different character areas identified within the Design Codes and their provision are as follows:

- Settlement Edge Grain – Clusters: Provision of one parking space per dwelling for 1-2 bed dwellings, and two parking spaces per dwelling for 3-4 bed dwellings. An additional 10% of parking for visitors must be provided. Parking should be predominantly on-plot or in small and well-overlooked courtyards. A flexible room should be provided which can be used as a garage / storage space or extra room. Provision should be made for the future conversion of parking spaces for alternative functions.
- Settlement Edge Grain – Hillside: Provision of one parking space per dwelling for 1-2 bed dwellings, and two parking spaces per dwelling for 3-4 bed dwellings. An additional 10% of parking for visitors must be provided. Parking should be predominantly on-plot with some provision for parking on-street and in small and well-overlooked courtyards. A flexible room should be provided which can be used as a garage / storage space or extra room. Provision should be made for the future conversion of parking spaces for alternative functions.
- Village Grain: Provision of one parking space per dwelling for 1-2 bed dwellings, and two parking spaces per dwelling for 3-4 bed dwellings. An additional 10% of parking for visitors must be provided. Parking should be provided through a mix of parking on-plot, on-street or in small and



well-overlooked courtyards. Provision should be made for the future conversion of parking spaces for alternative functions.

- Urban Grain: Provision of one parking space per dwelling for 1-2 bed dwellings, and 1.5 parking spaces per dwelling for 3-4 bed dwellings. An additional 10% of parking for visitors must be provided. Parking should be provided through a mix of parking on-street or in small and well-overlooked courtyards. Provision should be made for the future conversion of parking spaces for alternative functions.

8.5.8 Car parking levels will be provided with reference to the Design Codes at the time of each RMA.

#### Electric Vehicles

8.5.9 The level of EV charging points provided throughout the development will be agreed by way of a Planning Condition. This will be in line with, or greater than, planning policy requirements at the appropriate time. The Office of Low Emissions Vehicles (OLEV) started a consultation in July 2019 on policies for EV charging points for residential and non-residential properties. The following government policies, relevant to the development proposals, are being consulted upon:

- Residential buildings: Every new residential building with an associated car parking space to have a charging point; and
- Non-residential buildings: Every new non-residential building with more than 10 car parking spaces to have one charging point and cable routes for an EV charge point for one in five spaces.

8.5.10 As such the proposed development will include provision for EVC in accordance with the OLEV guidance and agreed through the RMAs. In addition, there will be an Energy Services Company (ESCO) on the site to generate electricity through PV panels (and other potential sources) which will then be sold to occupiers of the site and to charge bikes and cars. There will be battery storage on the site to capture surplus energy for when the PV system is not able to operate. This level of provision is consistent with the aspirations to provide an exemplar level of EV charging, meeting the needs of both the energy strategy and STS.

#### Car Clubs

8.5.11 Car and cycle parking spaces for the proposed development application will be discussed with appropriate stakeholders with phased provisions to be agreed in line with relevant planning policy at the time. The developer will engage with Car Club providers to determine an optimum model of operating a Car Club (available for all site users) and implement the required level of Car Club spaces to facilitate this (with appropriate provision at each phase of the build-out). This will form part of a wider CC system and will ensure full compatibility (in terms of regulation and booking).

#### Cycling

8.5.12 The number of cycle parking spaces provided will be designed to encourage high levels of cycle usage. This will include provision of high levels of well-situated cycle parking in public areas and at local facilities to encourage journeys by cycle.

8.5.13 Cycle parking will be secure and covered when associated with residential and commercial uses and visitor storage will be integrated through the site in an appropriate manner to meet the needs and location. Details of this will be agreed during the RMAs for each phase.

## 8.6 Phasing

8.6.1 An important element of constructing a development relates to how the build-out is phased. The phasing programme will continue over a number of years. For the purposes of this TA, 2023 is anticipated to be the earliest year of occupation, with 2038 representing a reasonable timeframe for later phases of build-out of the proposed development. The indicative phasing schedule is summarised in **Table 8-3** with the associated plan provided in **Figure 8-8**; a larger scale version of the plan is included at **Appendix E**.



**Table 8-3: Indicative Phasing Schedule**

Phase	Residential	Non-Residential
1	751 units	3FE School Site Commercial / Leisure Employment / Mixed Use (0.43ha plot area) P&R Extension Energy Centre
2	923 units	-
3	698 units	Community Farm Ambulance Service
4	737 units	Community Hall / Library Employment / Mixed Use (1.67ha plot area)
5	691 units	2FE School Site

- 8.6.2 The phasing will follow on from the consented ILR which allows development of up to 300 homes. Beyond this level of occupation, the NAR will be provided in full to facilitate access to development areas and provided bus services into and through the site. Upon opening of the NAR, the section of the ILR to the south of the western development plot access will be restricted to buses only (controlled by a bus gate). The remaining ILR to the north of this location will be retained as vehicular access to the adjoining development plots.



Figure 8-8: Phasing Plan

