Appendix III to CET/24/3

EXETER LOCAL CYCLING AND WALKING INFRASTRUCTURE PLAN (LCWIP)

Devon County Council

Exeter LCWIP
Project No. 70088694
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1 Introduction

BACKGROUND

1.1.1. Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a strategic approach to identifying cycling and walking improvements required at a local level.

1.1.2. Exeter has a strong track record of enabling and increasing levels of walking and cycling. Walking levels in Exeter are consistently amongst the highest in the UK. Cycling levels continue to grow, building on the success of the Cycling Demonstration Towns status from 2006-11, and the 2014 completion of the Exe Estuary Trail connecting the city to the coast and communities along the estuary.

1.1.3. Looking forward, the Exeter Transport Strategy 2020-2030 sets out the ambition for 50% of work trips originating in Exeter to be made on foot or by cycle by 2030. This target received high levels of public support during the Exeter Transport Strategy consultation and was based on a robust evidence base of the extent of change possible, which included development of a bespoke Exeter cycling model.

1.1.4. The Exeter LCWIP will set out the infrastructure measures required to help deliver the modal shift to achieve the 50% Active Travel target. Alongside this, the Exeter LCWIP aims to:

- Support Devon County Council's response the climate crisis
- Support health, wellbeing, and access for all in the Exeter area
- Help the area to accommodate local housing growth
- Deliver economic benefits to Exeter

1.1.5. This document sets out the Exeter LCWIP for adoption, following edits from the public and stakeholder consultation in Spring 2023.

1.2 OUTPUTS

1.2.1. The output of this work is this detailed technical report, incorporating the background information, setting out the cycling and walking proposals, and including detailed prioritisation and high-level costs. The layout of the report follows the six-stage process defined by the Department for Transport (DfT)[1]:

LCWIP Stage	Details	The Exeter LCWIP
Stage 1: Determine the scope	Establish the geographical context and arrangements for governing and preparing the plan.	The focus of this LCWIP is broadly on infrastructure within the boundary of Exeter City, however there are considerations for connections to neighbouring settlements.
Stage 2: Gathering information	Identify existing walking and cycling patterns and potential new journeys. Review existing conditions and identify barriers to walking and cycling. Review related transport and land use policies and programmes.	This LCWIP has also drawn upon extensive local knowledge of officers and stakeholders in identifying challenges and opportunities.
Stage 3: Network planning for cycling	Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required.	This LCWIP has drawn upon extensive local knowledge of officers and stakeholders in identifying interventions. This LCWIP has drawn upon extensive local knowledge of officers and stakeholders in identifying interventions.
Stage 4: Network planning for walking	Identify key trip generators, core walking zones and routes, audit existing provision and determine the types of improvements required.	
Stage 5: Prioritising improvements	Prioritise improvements to develop a phased programme for future investment.	This LCWIP has developed a multi-criteria assessment tool to help prioritise interventions.
Stage 6: Integration and application	Integrate outputs into local planning and transport policies, strategies, and delivery plans.	Outputs from this LCWIP will be integrated into a new Local Transport Plan and DCC will work with ECC/District councils to integrate outputs into emerging Local Plans.

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/908535/cycling-walking-infrastructure-technical-guidance-document.pdf

2 Scoping

2.1 GEOGRAPHICAL EXTENT

2.1.1. The core focus of the Exeter LCWIP will be within the administrative boundary of the city. Creating a comprehensive, accessible, and coherent cycling and walking network in the city, that connects residential areas with schools, key economic hubs, public open space, and transport interchanges will be central to achieving the target of 50% of work trips originating in Exeter to be made on foot or by cycle. This represents the most achievable way of reducing short distance car trips in Exeter.

2.1.2. Transport boundaries don't stop at the city boundary, and the LCWIP will also consider opportunities to:

- Support active travel access from villages on the edge of the city through new infrastructure links and/or creation of green lanes.
- Provide strategic connections to existing settlements and areas of future development within cycling distance of Exeter.

The plan will build upon existing evidence and policy to identify walking and cycling infrastructure improvements and facilities required to achieve our ambitious target. Following the process set out in the technical guidance, the LCWIP boundary has been identified, focusing on the city boundary, and considering trips and routes within a 10km radius of the centre. This is based on:

- The Exeter City Council boundary, where there is the highest overall potential to increase walking and cycling trips, considering major trip generators, schools, and other significant origins and destinations.
- As the Exeter Travel to Work Area (TTWA) covers an extremely large area, the focus will be on routes to major settlements within a reasonable cycling distance of Exeter (circa 10km) which have the highest potential for increases in cycling trips. The Exeter TTWA has grown considerably in recent years and is now the second largest geographical TTWA in the country (behind Cambridge).
- The plan will also need to consider the opportunities and improved active travel links to new housing and employment growth areas both within the city and within a reasonable cycling distance of the city.

2.1.3. The plan will build upon existing evidence and policy to identify walking and cycling infrastructure improvements and facilities required to achieve our ambitious target.

2.2 GOVERNANCE

2.2.1. The LCWIP Client Group provide day-to-day management of the LCWIP. It provides leadership and direction to project managers and teams, allocates resources, ensures effective performance management of milestones, outcomes, deliverables, and risks.

2.3 STAKEHOLDER GROUPS

2.3.1. Two key stakeholder groups have helped to steer the project:

1. Officer Group: Key DCC officers who will have responsibility for delivering the outcomes of the LCWIP.
2. External Group: Key external stakeholders, including Exeter City Council, who can help shape and deliver the LCWIP and identify locally promoted schemes.

2.3.2. External stakeholders engaged included the BID (Business Improvement District), Civic Society, Exeter Cycling Campaign. These small groups have provided feedback on the scoping report, desire lines, core walking zones, and approach to incorporating Liveable Neighbourhoods.

2.3.3. The technical work to develop this LCWIP has been led by WSP, building on extensive previous work undertaken by DCC in developing the Exeter Transport Strategy 2020-2030.

2.4 ENGAGEMENT

2.4.1. Delivery of the LCWIP builds on previous engagement undertaken relation to walking and cycling Exeter, including comprehensive consultation with the public and stakeholders in 2019 as part of the development of the Exeter Transport Strategy 2020-2030.

2.4.2. Public consultation on the LCWIP was undertaken in the Spring of 2023. This was used to gather views from wider stakeholders and members of the public. This consultation showed public support for a route along Topsham Road between the Countess Weir Roundabout and Holloway Street, to improve facilities for cyclists and pedestrians. Topsham Road already has some provision, including shared used paths, but there are some weaknesses and narrow sections. Where this is the case there are often physical constraints that prevent improvement. Furthermore, there are routes within the LCWIP, such as the E9 route, linking Pynes Hill, Ludwell Valley Park, the RD&E and the city centre, and the E1 route along the River Exe connecting Bridge Broad to the Exeter Quay and Canal. These provide high quality alternatives to Topsham Road and connects schools, workplaces and leisure destinations. For these reasons, a comprehensive route along Topsham Road will not be progressed as part of this LCWIP.

2.5 SCHEME DELIVERY TIMESCALES

2.5.1. Schemes will be broadly divided into three delivery periods, aiming to achieve the ambition for 50% of trips to be made by foot or cycle by 2030.

- Short term (under 3 years)
- Medium term (3-5 years)
- Long term (5-10+ years)

2.5.2. Walking and cycling proposals will be prioritised based on a range of factors including potential to increase active travel, scheme deliverability, and links to other schemes and projects.

2.6 DESIGN STANDARDS

2.6.1. Walking and cycling proposals will be developed to the latest design standards and guidance to achieve coherent, direct, safe, comfortable, and attractive routes.

3 Active Travel in Exeter

3.1 BACKGROUND INFORMATION

3.1.1. Exeter is a thriving economic centre for Devon and a desirable location to live, with a population of approximately 130,000 people. It has one of the highest levels of active travel in the country, with a strong track record of encouraging and increasing levels of walking and cycling. Just under a third of residents walk for travel five times a week or more, and 6% of residents cycle five times a week or more. Walking levels in Exeter are consistently amongst the highest in the UK. Cycling levels continue to grow, building on the success of the Cycling Demonstration Towns status from 2006-11, and the 2014 completion of the Exe Estuary Trail connecting the city to the coast and communities along the estuary. Data used in the creation of this LCWIP comes from the 2011 census, as timescales prevented 2021 census data being fully available.

3.1.2. The COVID pandemic resulted in significant disruption to normal travel patterns. In the initial stages of the pandemic there were large reductions in commuting journeys, with more homeworking, more online shopping, and a significant drop in public transport patronage. Active Travel saw a resurgence in popularity, evidenced by significant increases in walking and cycling within local neighbourhoods. The long-term trends and implications are still unclear, although it appears some of the increase in walking and cycling has been sustained. The pandemic has proved that radical and rapid change to travel behaviour is possible, and there is an opportunity to build on these recent increases in walking and cycling.

Commuting

3.1.3. The Exeter Travel to Work area, which reflects the self-contained areas in which most people both live and work, is the second largest in the country, with 50% of people who work in Exeter travelling in from locations outside the city. The highest number of car drivers are from the outer areas of Exeter, however there are high concentrations of commuters commuting to Exeter from neighbouring districts.

3.1.4. The Census Travel to Work data shows that walking and cycling commuter numbers have been growing, particularly since 2001, with walking and cycling accounting for 28% of commuting trips in 2011. Vehicular traffic has reduced to 50% of trips (car and car passenger). Rising travel demand has instead been met by more Exeter residents travelling by sustainable travel modes, to a point where most Exeter residents now do not drive to work.

3.1.5. Evidence shows a higher proportion of commuting trips are made by residents living in Exeter, with a smaller proportion of commuters travelling in from Greater Exeter[2], and a smaller proportion still commuting in from further afield. However, Exeter residents still account for 46% of car-

[2] Greater Exeter refers to the District Council areas of Exeter, East Devon, Mid Devon and Teignbridge.

based commute trips to destinations within the city. These short distance car journeys within the city have the most potential to be made by cycling and walking.

Employment

3.1.6. The 2011 Census data identified 75,000 people work within the city. The six largest employment areas in the city account for 85% of all commuting trips. These are Sowton including Pynes Hill and Exeter Business Park, City Centre, Marsh Barton, Wonford (covering the RD&E), St Leonards (including County Hall) and Pennsylvania (including the University of Exeter). There is a noticeable east-west axis with significant employment focused on the City Centre, RD&E Hospital and Sowton Industrial Estate. Depending on the place of work, the travel to work modal split varies significantly.

3.1.7. Despite Sowton now hosting a similar number of jobs as the City Centre (approximately 20,000), more than five times more people walk to work in the City Centre than they do in Sowton. At 11%, the walking share to Sowton is approximately half the share of the average for the city. This is likely due to several reasons, including free and relatively unconstrained parking and good access by road to a range of destinations, including good connections to the Strategic Road Network (M5 & A30).

Retail

3.1.8. Exeter city centre is the main retail centre in the County, drawing shoppers from a wide hinterland with a shopping catchment of around 1 million people. It is the 2nd largest retail destination in the South-West behind Bristol. Travel statistics for those traveling to the city were identified in the 2011 Exeter City Centre Report, which found that around 40% of trips made by Exeter residents to the city centre were done so by car.

3.1.9. Within the city centre there are a number of traffic restricted routes, including fully pedestrianised areas, bus only and one-way streets. Major walking trip generators in Exeter city centre include the High Street, Princesshay shopping centre, Guildhall shopping centre, Southernhay, Queen Street, Exeter Central Station and Exeter Phoenix arts centre.

3.1.10. Protecting and strengthening the retail, community, and leisure experience offer at these district and local centres could play an important role in encouraging more walking and cycling in the city.

Education

3.1.11. National data from the National Travel Survey shows the significant peaks of travel relating to education trips between 08:00-09:00 and 15:00-16:00. However, although education accounts for a significant proportion of total trips, they account for a modest 10% of vehicle trips on the highway, with approximately 70% of education trips in Exeter undertaken by people walking and cycling.

Integration with public transport

3.1.12. Bus & coach travel is a key part of Exeter's public transport system, with the new Exeter Bus Station opening to passengers in summer 2021. The new Bus Station offers a significant improvement for passengers, promoting sustainable transport in the city and surrounding rural communities for decades to come. There is a need to ensure that the cycle network provides good connections to the bus station and other key nodes on the bus network that serve longer distance trips, where bus passengers may be able to use a cycle for the first and last mile of their journey.

3.1.13. The city is also served by Park & Ride services at Honiton Road, Sowton, and Matford. A new Park & Change at the Exeter Science Park has been constructed and opened in summer 2021. Respondents to the Exeter Transport Strategy consultation would like Park & Ride sites to provide facilities for other sustainable travel options, including Park & Cycle.

3.1.14. For a relatively small city, Exeter is well served by rail with five rail lines and ten stations. Between 2000/01 and 2014/15 the total patronage at all Exeter stations increased from just under 2.8 million passenger trips in 2000/01 to approximately 6.1 million trips, an increase of 121%.

3.1.15. Growth at Exeter St David's and Exeter Central stations comprises most of the absolute increase in passenger numbers, but the largest proportional increases were recorded at the other stations within the city. For example, over the previous 15-year period there was a 363% increase in patronage at Digby & Sowton station and over 904% percent growth at Pinhoe station.

3.2 THE CASE FOR WALKING AND CYCLING

3.2.1. Exeter has made good progress with delivering active travel infrastructure, with over £100m of new transport infrastructure in Exeter and the East Devon Growth Point area since 2011.

3.2.2. The Department for Transport's (DfT) Gear Change and Cycling and Walking Investment Strategy (CWIS) documents include the aim to double cycling activity by 2025. There will be substantial benefits from achieving this outcome, in terms of supporting public health and wellbeing, more vibrant cities and public spaces, and reducing emissions from transport.

3.2.3. In 2020 the Government announced a £2 billion plan to boost cycling and walking both during and after the Covid-19 crisis. The DfT also announced that they will fund local authorities to create dozens of new "Mini-Holland" schemes. These pilots are modelled on Dutch schemes to make local streets safer for walking, cycling and play. Further guidance is expected for these types of schemes following the publication of the Plan for Drivers policy paper, which will need to be taken into account in relation to future schemes. There is no timetable yet for when this guidance may be issued.

3.2.4. Both Devon County Council and Exeter City Council share Government's ambition to provide more direct, convenient, safe, and attractive options for local journeys.

Responding to the climate crisis

3.2.5. Both Devon County Council and Exeter City Council have declared a climate emergency and have signed the Devon Climate Declaration. Exeter City Council have pledged to work towards creating a carbon neutral city by 2030.

3.2.6. Transport contributes approximately 27% of Devon's greenhouse gas (GHG) emissions. It is the sector with the largest GHG emissions across the County. Reducing transport GHG emissions will be essential to meet both national and local climate commitments. The Devon Carbon Plan identifies that reducing the need to travel and shifting to more sustainable transport options such as cycling, and walking are the most important ways to tackle transport GHG emissions.

Supporting health, wellbeing, and access for all

3.2.7. Active travel can play a crucial role in supporting public health and wellbeing. A lack of physical activity causes one in six deaths in the UK and costs the country an estimated £7.4bn per year. In Exeter, 54% of adults are overweight or obese. Improved walking and cycling infrastructure enable more people to take regular exercise, be more active and in turn, reduces incidences of illness and disease, as well as reducing stress and improving self-esteem.

3.2.8. In 2019, an average of 76 people per day were killed or seriously injured on Great Britain's roads. In addition, air pollution causes an estimated 28,000 to 36,000 deaths a year nationally, as well as an increased risk of chronic health conditions. Active travel infrastructure not only protects vulnerable road users, by facilitating a mode shift away from private cars it can play a role in reducing the health burden of air pollution.

Improving accessibility and social sustainability

3.2.9. 27% of Exeter households do not own a car, rising to more than 50% of households in the city centre and Newtown. There are high levels of deprivation in some areas of the city, including the city centre, Newtown, St Thomas, Whipton, and Wonford. It is important that all residents can access employment and education opportunities, key services, and facilities. Delivering improved active travel connections between key destinations will be important to achieve this.

3.2.10. Enabling people to cycle and walk increases the level of social interaction on streets and in neighbourhoods. This has been shown to have a positive impact on issues such as loneliness and builds improved levels of trust in communities.

Accommodating growth

3.2.11. Exeter is one of the fastest growing cities in the UK, with over 2,600 homes needed per year across the Greater Exeter area. A total of eight potential major development sites, focused around brownfield areas, are identified to accommodate over 5,000 new homes, in addition to growth already identified in existing Local Plans. The document states that "As Exeter grows it will be important to recognise and improve the qualities that make it liveable. The streets, spaces and parks that link neighbourhoods and the city centre need to be safe and attractive to use, encouraging people to be active, healthy and use cars less".

Economic benefits

3.2.12. DfT's Gear Change document states that cycling contributes £5.4bn to the economy per year and directly supports 64,000 jobs. A review of national and international studies showing the economic value of investing in cycling infrastructure found:

- Cycle schemes can achieve more for less, producing between £5 and £35 of benefit to the economy for every £1 spent.
- People cycling visit local shops more regularly, spending more than users of most other modes of transport.
- Per square metre, cycle parking delivers 5 times higher retail spend than the same area of car parks.
- Public realm improvements, including those that cater for cycling, have been shown to result in increased trade at local businesses.
- Neighbourhoods with cycle-friendly characteristics – low traffic volumes, walkable, close to off-road cycle paths – are more desirable or have higher property values

4 National and Local Policy Context

4.1.1. There are clear opportunities to support environmental, health, social and sustainable mobility goals by better connecting people and places with targeted investment in active travel infrastructure. This is evident in both national and local policy that has guided and shaped this LCWIP process. A summary overview is provided below.

4.2 NATIONAL POLICY & PLANS

- Gear Change: A bold vision for cycling and walking (DfT 2020)
- Cycling and Walking Investment Strategy (DfT 2017)
- Transport Decarbonisation Strategy (DfT 2021)
- Future of Mobility: Urban Strategy (DfT 2019)
- Everybody Active, Every Day (Public Health England 2014)
- Clean Air Strategy (DEFRA 2018)
- Inclusive Transport Strategy (DfT 2019)

4.3 LOCAL PLANS & POLICY

4.3.1. Cycling and walking is referenced in a range of local policies and plans, outlined below. These policy documents give strong support for cycling and walking. Several of them, including the Local Plan, are currently being reviewed, making this an ideal time to bring forward and further integrate cycling and walking proposals.

4.3.2. Key local policy & plans include:

Devon Carbon Plan (DCC 2023) and Net Zero Exeter 2030 Plan (Exeter City Futures, endorsed by ECC 2020)

4.3.3. Both Devon County Council and Exeter City Council have declared a climate emergency and have signed the Devon Climate Declaration. Exeter City Council have pledged to work towards creating a carbon neutral city by 2030. Transport contributes approximately 27% of Devon's greenhouse gas emissions (GHG) and is the sector with the largest GHG emissions across the County. Reducing transport GHG will be essential to meet both national and local climate commitments. The Devon Interim Carbon Plan identifies that reducing the need to travel and shifting to sustainable transport options such as cycling, and walking are the most important ways to tackle transport emissions.

4.3.4. In April 2020, the Net Zero Exeter 2030 Plan was formally adopted by the City Council. It presents Exeter's view of how the city can achieve its ambition to be net-zero carbon by 2030. Key relevant actions relevant to the LCWIP include:

- Reduce default speed limits in high-density areas to 20mph to ensure Exeter's roads are safe for everyone using them
- Deliver a safe, segregated convenient cycle and walking network that is accessible to all.
- and supported by infrastructure (such as changing and storage facilities) across the city centre and at major employment / education sites
- Make the city centre, and core walking areas, free from non-essential motorised vehicles to provide a vibrant public space and free up land currently used for driving and parking
- Optimise the city transport network (including highways, cycleways, and waterways), to give priority for sustainable, shared, and active modes of travel
- Enhance pedestrian environments in residential areas by removing through traffic, creating quieter and safer streets.

Devon & Torbay Local Transport Plan 3 2011-2026 and Transport Infrastructure Plan (DCC 2011)

4.3.5. Devon & Torbay Local Transport Plan 3 (2011-2026) included an Exeter Strategy section with a strong focus on accommodating new development and growing travel demand. The strategy included proposals to:

- Deliver the hierarchy of cycle connections between key locations
- Complete the Exe-Estuary Cycle route
- Improve the walking environment
- Provide cycle training and awareness campaigns for all road users

Exeter Transport Strategy 2020-2030 (DCC 2020)

4.3.6. The Exeter Transport Strategy (2020-2030) builds upon the growth led focus of LTP3 and includes a greater focus on improved travel choices, people, and technology. Central to the strategy is addressing constraints on sustainable transport networks, delivering interventions that contribute to improved quality of life and utilise the opportunities that technological advancements have created. This is reflected in three key themes:

- Greater Connectivity
- Greater Places for People
- Greater Innovation

4.3.7. Central to the Greater Places for People theme is the aspiration for 50% of commuting trips within the city will be made on foot or by cycle.

4.3.8. The strategy also includes new high-quality strategic cycle links creating a city region strategic leisure network to encourage short to medium distance trips from existing settlements into Exeter and the Exe Estuary Trail. The strategy includes a five-year action plan, including a significant amount of walking and cycling schemes.

Liveable Exeter – A Transformational Housing Delivery Programme (ECC 2019)

4.3.9. In 2019 Exeter City Council published Liveable Exeter: A Transformational Housing Delivery Programme. The plan sets out the City Council's vision for the city and identifies key potential development sites. The reports note there is a once in a generation opportunity to renew the structure of the city. A total of eight potential development sites are identified that could accommodate over 5,000 new homes.

Cycling and Multi-Use Trail Network Strategy (DCC 2015)

4.3.10. This document outlines the importance of developing and promoting cycle ways and maintaining public rights of way, including a map of key strategic trails for prioritisation across the County. Aspirational primary routes that will provide fast efficient cycle connections linking major new growth areas with key employment, retail, education, and leisure destinations have been identified. A number of these routes are already largely in place or under construction.

Exeter Live Better And Move More – Physical Activity Strategy (ECC 2019)

4.3.11. The Exeter Physical Activity Strategy (Exeter City Council, 2019) seeks to provide the overall direction for increasing physical activity in Exeter and secure commitment from stakeholders. The strategy describes current physical activity levels and proposes priorities and principals for encouraging active lifestyles. The document proposes that all interventions aimed at increasing physical activity in Exeter are underpinned by the following principles:

4.3.12. Exeter City Council aims to deliver this strategy by targeting 20 areas that are most at risk of suffering from the effects of high levels of physical inactivity. Following on from this, the strategy also highlights origin-destination Travel to Work movements where greater modal shift towards active travel methods of commuting can be achieved.

Live And Move Strategy

4.3.13. There is now a Live and Move strategy in place, which complements the Exeter Physical Activity strategy. Live and Move was created to seek alternatives to a system that often fails; because when it comes to health and wellbeing, getting around or feeling empowered, it is often our overlooked communities who are the worst off. The strategy acknowledges that keeping active and healthy is getting harder, travelling is getting more difficult, and people and communities are under pressure on lots of fronts.

4.3.14. Other relevant local policy & plans that outline specific active travel infrastructure proposals for specific places include.

5 Network Planning for Cycling

5.1 EXISTING CYCLING ROUTES AND TRIPS

Existing Routes

5.1.1. Exeter has an extensive existing cycle network which comprises of traffic free cycle routes, on road cycle lanes as well as advisory cycle routes. The latter of which make up most of the network in Exeter.

5.1.2. As part of the Exeter Five Year Plan, sine cycle routes are being delivered in Exeter. These include:

- E3 – Exeter city centre to Cranbrook
- E4 – University of Exeter to Science Park
- E9 – Topsham / Newcourt to City Centre via Wonford and St Leonards
- E12 – Beacon Heath to Marsh Barton Station and Industrial Estate

5.1.3. At the time of the 2011 Census, 6% of Exeter residents cycled to work, and this has continued to increase since 2011. The city has one of the highest mode shares for cycling in the country, but there are significant opportunities to continue to increase the number of people cycling to be in line with more other UK cities such as Cambridge (29%), Oxford (17%), and York (11%) or attain cycling levels seen in similar sized European cities. Census data shows that there are clusters within the city boundaries that exceed 10% of cycling modal share, in particular at key employment locations within the city such as Marsh Barton and Sowton Industrial Estates, the Met Office, and the City Centre.

5.1.4. The city's residential areas which recorded the highest levels of cycling to work in 2011 were located along the Exe Estuary Trail between the city centre and Topsham, and in some neighbourhoods east of the city centre. In a limited number of areas 15%-18% of all employed residents who commuted usually travelled by cycle.

5.1.5. Levels of cycling to work vary considerably across the city, with pockets of high and low mode shares in adjacent neighbourhoods. Levels of cycling use broadly reflect the quality of existing infrastructure, with high levels of use along the Exe Estuary Trail, and areas to the east of the city where a network of relatively quiet streets provide a range of potential cycle routes.

5.2 CALCULATING FUTURE DEMAND FOR CYCLING

5.2.1. This LCWIP has used a number of techniques to inform where new cycling infrastructure could be located in Exeter, based on the likely demand on key corridors. The following sections explain these methods in turn and share outputs from this analysis. This assessment of cycle demand has been reviewed by officers, who have shared their local knowledge and insight to inform the final network.

Propensity to Cycle Tool – Key Commuting Desire Lines

5.2.2. The Propensity to Cycle Tool (PCT)[3] has been used to estimate cycling commuting modal share throughout key routes in the city.

5.2.3. It illustrates that there is a network of potential cycle desire lines throughout the city that are likely to be used by commuters. The most popular routes with the highest cycle flows are between the city centre and Sowton, along the ring road, along the Exe Estuary Trail, and to the University of Exeter's Streatham Campus. Topsham Road, Heavitree and St Leonards also indicate good potential for cycling.

5.2.4. It is important to note that this is not a fully accurate representation of route choice because some sections of the Exe Estuary Trail route have not been accounted for, however it does give a broad overview of likely cycle route usage across the city.

Propensity to Cycle Tool – School Travel

5.2.5. The Propensity to Cycle Tool has also been used to estimate current levels of cycling as a form of travel amongst school pupils.

5.2.6. The tool illustrates the significant number of cycling desire lines to secondary schools in the city, particularly to the east and south of the city centre. Similarly, to commuting, Topsham Road and Heavitree show a high potential demand for cycling. It is important to note that not all schools participated in the school travel census, including independent schools, and cycle trips to these schools therefore are not identified on

Origin-Destination analysis

5.2.7. The LCWIP Technical Guidance states that identifying demand for a planned cycle network should start by mapping the main journey origin and destination points, including future development areas. These developments are primarily located on the eastern edge of the city, in areas such as Pinhoe, Monkerton and Newcourt. Strong active travel links between these origins and destinations will be a priority within the LCWIP recommendations.

[3] https://www.pct.bike/

Desire Lines

5.2.8. Following on from the origin-destination analysis, key desire lines between origin and destination points within the city were identified. This has been based on current and future year scenarios in the Propensity to Cycle Tool.

5.2.9. The key desire lines are show the likely routes with highest demand for cycling. The potential cycle routes identified through analysis of PCT, origin-destination analysis and local stakeholder feedback, have identified potential key corridors or demand. These are in addition to routes identified in Exeter's five-year plan.

Assignment of demand to the highway network

5.2.10. Current and future cycling scenarios have been overlayed with key origin and destination information to estimate key cycle desire lines on the highway network. Existing and potential cycle infrastructure improvements have been mapped to identify key cycle routes that are not currently catered for by consistent, good quality cycling infrastructure. These are the areas where the development and improvement of cycle infrastructure should first be considered.

Review and refinement by local stakeholders

5.2.11. Considering the analysis of the technical data on anticipated demand for cycling based on PCT and where new development is planned, further work has been undertaken with local stakeholders (DCC and ECC) to determine other gaps in desire lines for cycling or opportunities that this data may not have picked up. Knowledge of local stakeholders is an important consideration in informing a local cycling network as the technical tools which predict demand. This information has been looked at collectively to identify a potential cycle network for Exeter.

5.2.12. Figure 1**Error! Reference source not found.** therefore shows a summary plan of this potential cycle network. This potential network includes t he identification of 22 primary LCWIP routes which would provide strategic connections across the city connecting the key destinations, as well as other potential LCWIP routes. These feature both enhancements to existing sub-standard routes and new alignments. In addition, several secondary 'feeder' routes have been identified which would complement this network to provide greater permeability to the primary network.

5.2.13. Further work has been undertaken to understand the type of interventions possible along each of the 22 primary routes. Subsequent report sections provide concepts for potential cycle infrastructure along the routes. Thereafter indicative construction costs have been developed to give a view on the scale of costs required to deliver the interventions.

5.2.14. The scale of ambition is clearly very high and to deliver 22 routes is considered a long-term aspiration for DCC and ECC. An important step in the LCWIP process is to set out a prioritised programme of schemes which can be realistically delivered over the next 5-10 years. The approach to prioritisation of the routes and the ranking is set out in Section 5.5.

Exeter LCWIP Cycle Network Map

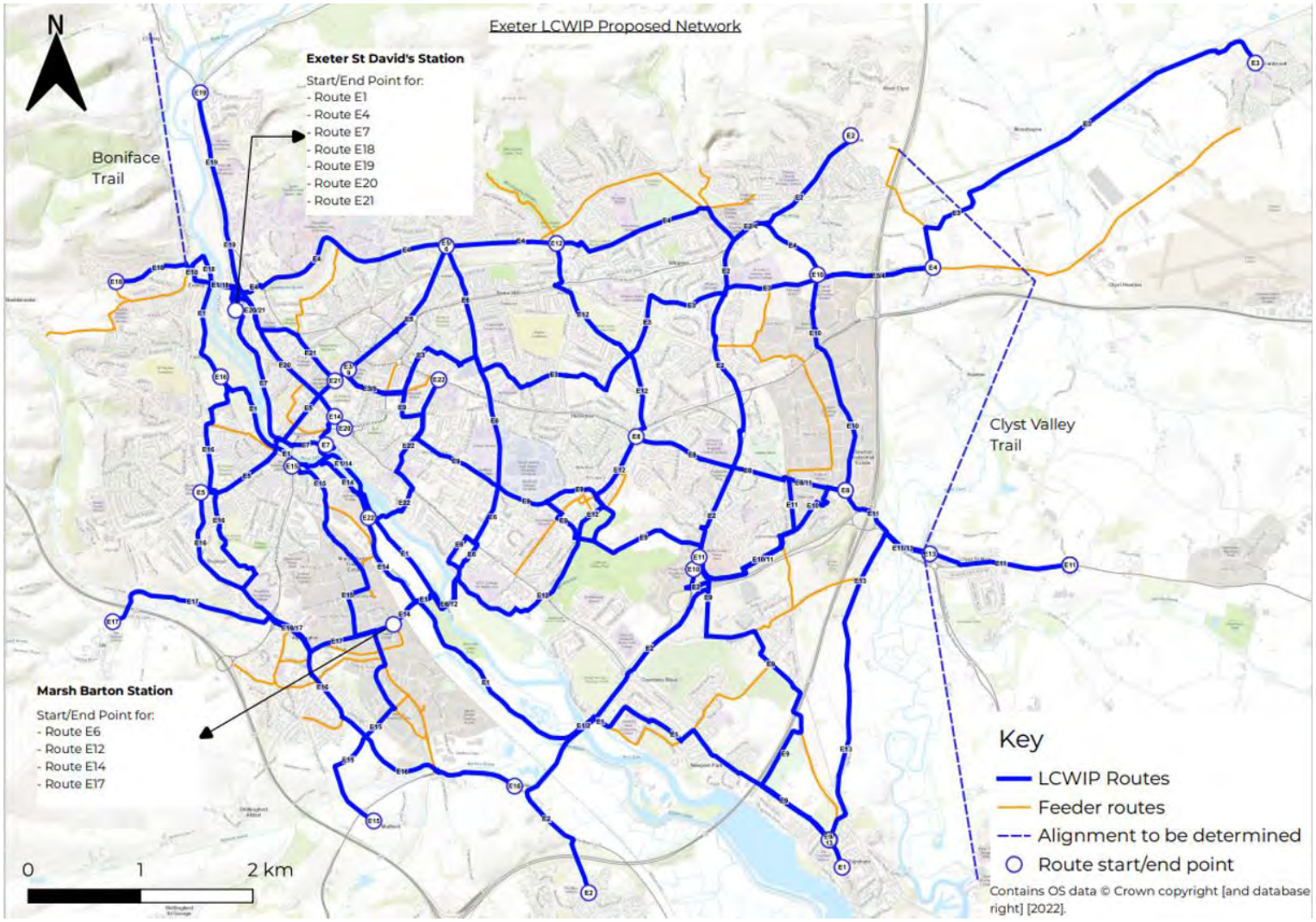


Figure 1: Proposed cycle network

5.3 CYCLE INFRASTRUCTURE

5.3.1. The potential for cycle infrastructure on the identified routes has been reviewed in line with LTN 1/20 guidance[4]. Some illustrations of the type of infrastructure considered as part of this process is outlined below.

Major Junction Improvement

5.3.2. Major junction improvements have been proposed at locations where difficulties for people to cross or make progress walking and cycling have been identified. The improvements will vary by location, but generally these will seek to segregate cycle movements from general traffic to reduce potential conflicts and improve pedestrian crossings across the junction.

5.3.3. Figure 2 shows an example of the type of junction being considering at some locations. This type of 'orbital' cycle tracks segregates cycle movements from general traffic, whilst pedestrian crossings are provided on all junction arms.

Figure 2: Example of a major junction improvement, Cambridge

Figure 3: Example of a continuous footway/cycle track, Exhibition Way, Exeter

Minor Junction Improvements

5.3.4. At many smaller junctions, minor improvements to make the junction safer and prioritise walking and cycling have been proposed. These involve tightening the turning radii for vehicles to slow vehicles down as they turn and improve the visibility of pedestrians crossing the junction. Also amongst the considerations are continuous footways/cycleways across side roads, where the footway/cycleway would continue uninterrupted across the junction as shown in Figure 3. This gives priority to those on foot and is designed to make walking easier and safer. The image below shows an example of this in a location with a cycle track.

[4] https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120

Segregated cycle facilities

5.3.5. On busy corridors separating cycle traffic from motor vehicles with segregated cycling facilities is proposed. This makes cycling more accessible and inclusive to people who would not be comfortable cycling with general traffic. It also facilitates more journeys by bike and improves safety for cyclists. Depending on the location two types of segregated cycle facility are proposed: one-way cycle tracks and two-way cycle tracks:

Figure 4: Example of a one-way contraflow cycle lane, Magdalen Road, Exeter

One-way cycle track

5.3.6. These are typically located between the carriageway and a footway, and travel either in the same direction as general traffic or as a contra-flow cycle lane (as shown in Figure 4). For roads with two-way traffic, one lane can typically be provided on both sides of the carriageway to allow travel in both directions. These tracks can be separated from motor vehicles with kerbs, a step between the carriageway and the cycle track, or with light segregation such as plastic wands or painted lines.

Two-way cycle track

5.3.7. Like one-way cycle tracks, these provide a protected space for cyclists away from motor vehicles. A two-way cycle track is located on one side of the carriageway and accommodates people travelling in both directions as shown in Figure 5. It can also be segregated using kerbs, a step between the carriageway and the cycle track or using light segregation such as plastic wands.

Figure 5: Example of a bi-directional cycle track, Cumberland Way, Exeter

Figure 1: Example of a modal filter, Homefield Road, Exeter

Modal Filters

5.3.8. Modal filters close a road to through traffic at one point but allow those cycling or walking to pass through. All properties on the road remain accessible by car, but access to the property may be via a different road than previously. Removing through traffic from a street improves road safety, reduces air and noise pollution, and encourages people to consider walking or cycling short journeys.

5.3.9. Modal filters can be designed to allow access for emergency services and can be constructed using temporary materials as part of a trial, before being made permanent. Bus gates are also types of modal filters, but also allow access for buses whilst remaining closed to general traffic. These restrictions can be timed or operate 24/7.

5.3.10. These types of interventions would continue to only be implemented with local support, including approval at HATOC (Highways and Traffic Orders Committee) and Cabinet Members, and will be subject to forthcoming guidance from Government as well as any relevant issues such as wider strategic alignment of the scheme with local policy including the County Council's carbon reduction and public health objectives.

Shared Use

5.3.11. Where highway space is constrained, and cycle/pedestrian flows are likely to be limited, shared use provision has been proposed in line with LTN 1/20 guidance.

5.3.12. Shared use facilities will be designed to be wide enough to accommodate expected flows, provide priority to pedestrians and cyclists by design over side roads and provide safe crossing facilities at large junctions. Designs will also take into account the needs of disabled users and ensure there is not a negative impact on pedestrian levels of comfort.

Figure 2: Example of a shared use path, Ludwell Valley Park, Exeter

Quietways

5.3.13. Where motor traffic flows are light and speeds are low, cyclists are likely to be able to cycle on-carriageway in mixed traffic.

5.3.14. Traffic calming and traffic management techniques can be used to help reduce motor vehicle speed and volume to make cycling in mixed traffic less hazardous and more comfortable. Crossings and junction improvements for cyclists at major roads can then help connect into local networks of quieter streets.

5.4 CYCLE ROUTE IMPROVEMENTS

5.4.1. Potential schemes and improvements have been identified for each of the routes in the primary network applying LTN 1/20 standards. These schemes would be subject to funding, feasibility, detailed design, and further consultation, but do provide an indication of the possible opportunities for improvements to cycling facilities on each of the routes.

Some of these routes have been audited using the Route Selection Tool (RST) to inform baseline conditions and assist in identifying interventions for the routes. However, the cycle network has been refined since this analysis, following input from stakeholders. It was not considered necessary to re-audit the revised network using RSTs given the extensive evidence base considered in developing the route alignments and stakeholder input as to the shape of interventions on the routes. The routes are all listed below. In some cases, types of improvements needed have been included however, in most cases, these maps represent indicative routes and the type of infrastructure improvements will be decided at the point of detailed design. The scheme proposals have been referenced using the 'E' numbering system to be consistent with signed cycle routes in Exeter. Overview plans can be seen alongside the route details, but the plans can be seen in more detail, with larger routes broken down into multiple plans, in the appendix.

There are two existing E routes with no proposed enhancements or upgrades as part of the Exeter LCWIP:

E2 - Exminster to Pinhoe

E2 connects Exminster to Pinhoe via the Exeter outer ring road. The route passes several key employment and education sites including Pynes Hill Business Park, the Met Office, St Peter's School and St Luke's School. As well as linking to existing residential communities E2 connects new development at Monkerton and off Cumberland Way to the Exeter cycle network

The route is in place and comprises of shared use paths alongside 30mph road. There is low generally low pedestrian footfall on this route, apart from in the vicinity of the school. There is some localised narrowing and passing of concealed entrances, particularly as the routes approach Countess Wear roundabout.

E11 - Pynes Hill Business Park to Westpoint Arena

Route E11 runs from Pynes Hill Business Park to Westpoint Arena passing through the Clyst Heath residential area, Sowton Industrial Estate and then the village of Clyst St Mary. Future development is likely in this area of East Devon and high-quality provision will be essential to make cycling an attractive option.

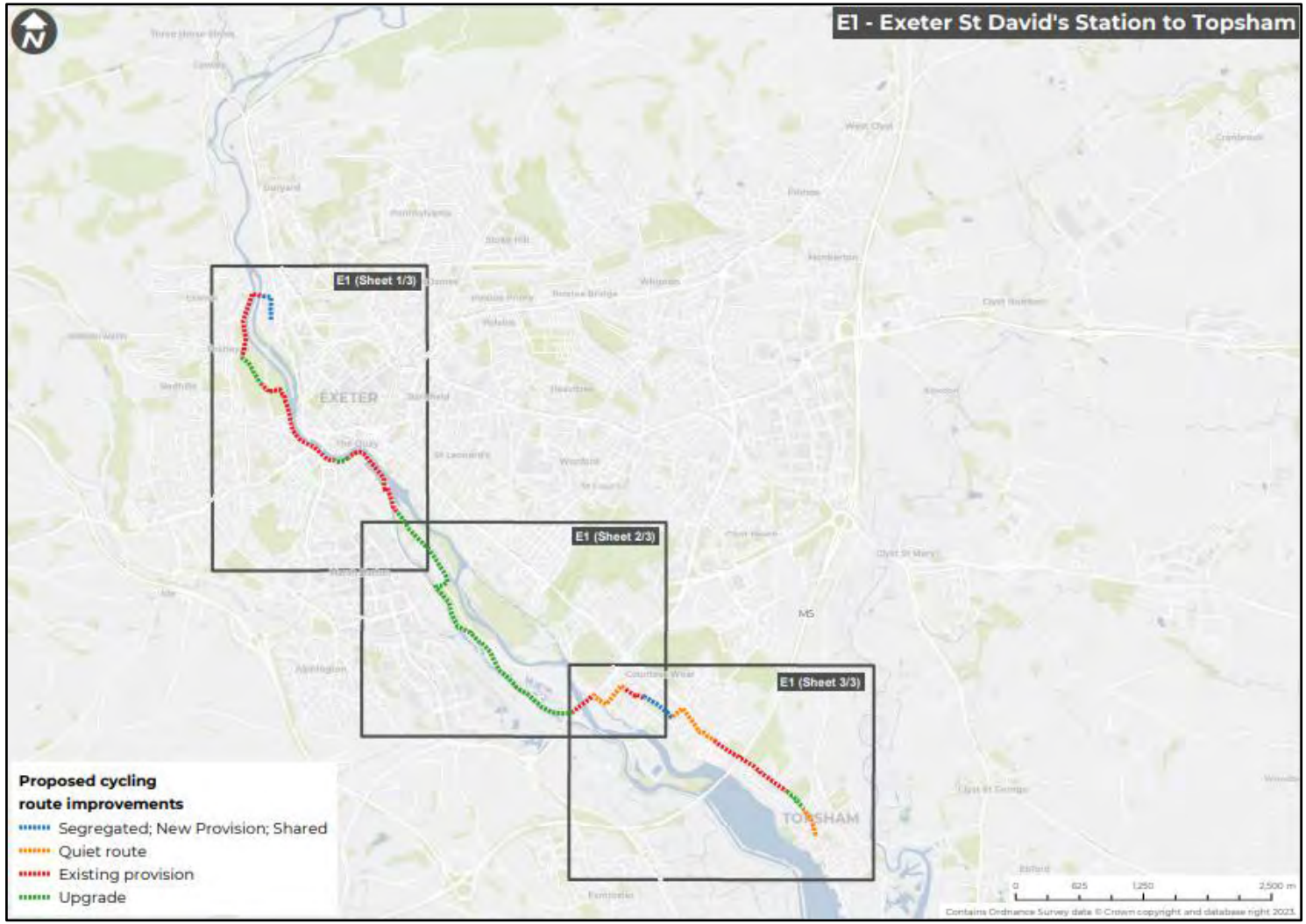
E1 – Exeter St David's Station to Topsham Road

Estimated Construction Cost - £750,000 (Low cost)

This is the spine of Exeter's cycle network and the most well used route in the city for recreational and everyday journeys. The route is used for trips to Exeter St David's station, the city centre, Exeter Quay, Marsh Barton Industrial Estate, and many other journeys. Starting at Exeter St David's station this level route initially follows the River Exe flood defence scheme before running adjacent to the River Exe at the Quay and then Exeter Canal as far as Bridge Road. Here it continues through the Countess Wear residential estate towards Topsham. The route is also part of the National Cycle Network – NCN 34. At Bridge Road and Topsham, the route becomes part of the Exe Estuary Trail (NCN2) continuing down to the coast at Dawlish and Exmouth.

The route is in place and largely comprises of shared off-road paths away from traffic. At Bridge Road the route becomes a shared path adjacent to carriageway and then travels on quiet roads through the Countess Wear estate. As it continues to Topsham the route is a shared path before re-joining quiet roads through the town.

Parts of the route can become busy with both pedestrians and cyclists, particularly at weekends or during school holidays. The route doesn't have a clear start at St David's station and access can be difficult here.

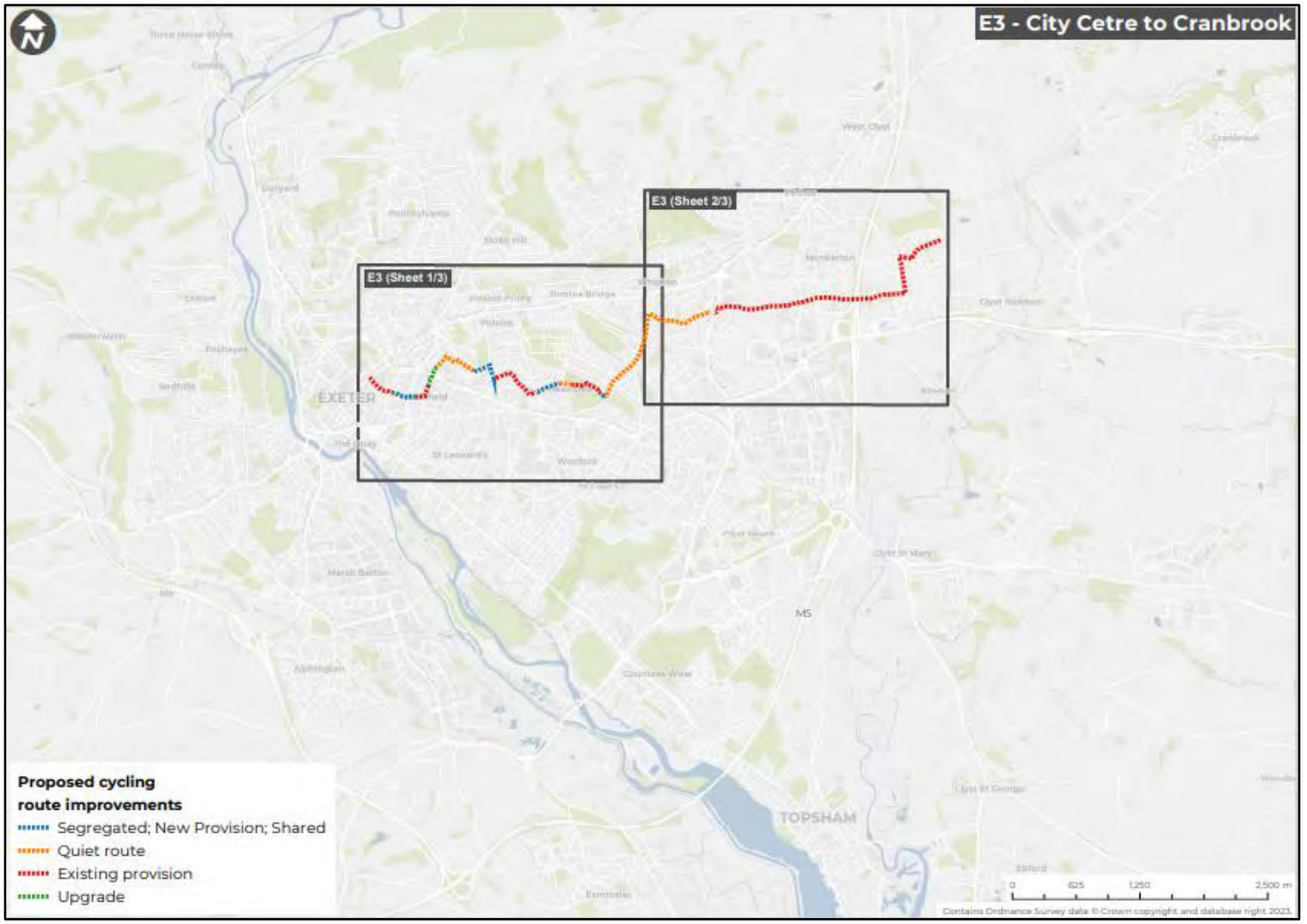


E3 – City Centre to Cranbrook

Estimated Construction Cost - £1,750,000 (Medium cost)

E3 runs from the city centre to the new community at Cranbrook through the heart of the residential communities of Newtown, Heavitree and Whipton. It passes several schools on route and connects to new employment sites at Science Park, Sky Park, and various freight Depots along the A30 as well as residential development off Tithe Barn Lane before connecting to Cranbrook.

The route has already been signed in the city, largely using quieter roads and a number of modal filters have been introduced to further reduce traffic. Further work is planned to improve crossings and create sections of protected cycling provision as well as a new alternative off-road cycle route to from Tithe Barn Lane to Cranbrook away from the busy old A30.

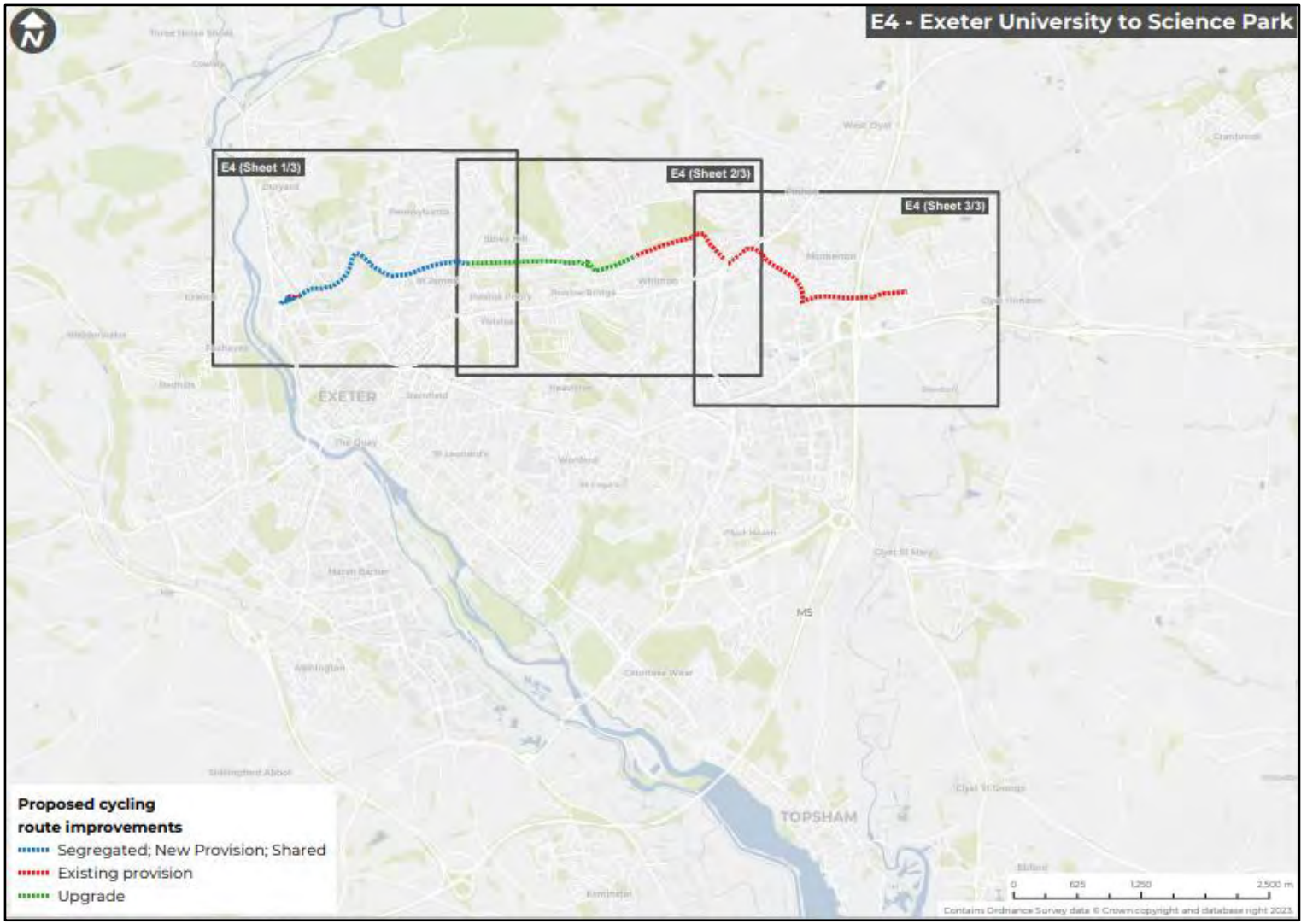


E4 - Exeter University to Science Park

Estimated Construction Cost - £7,500,000 (High cost)

E4 connects Exeter St David's station to the University of Exeter before continuing through residential communities around Stoke Hill and Beacon Heath. It passes St James's and Willowbrook School and leisure facilities at Exeter Arena before continuing past development along Cumberland Way to employment at Science Park.

Progress has been made on some sections of E4 on Cumberland Way as far a new bridge over Summer Lane. The remaining work comprise a mix of upgrading of existing off-road paths through parks and shared use facilities as well as new sections of protected cycle route and provision of dedicated cycle facilities at Stoke Hill roundabout.



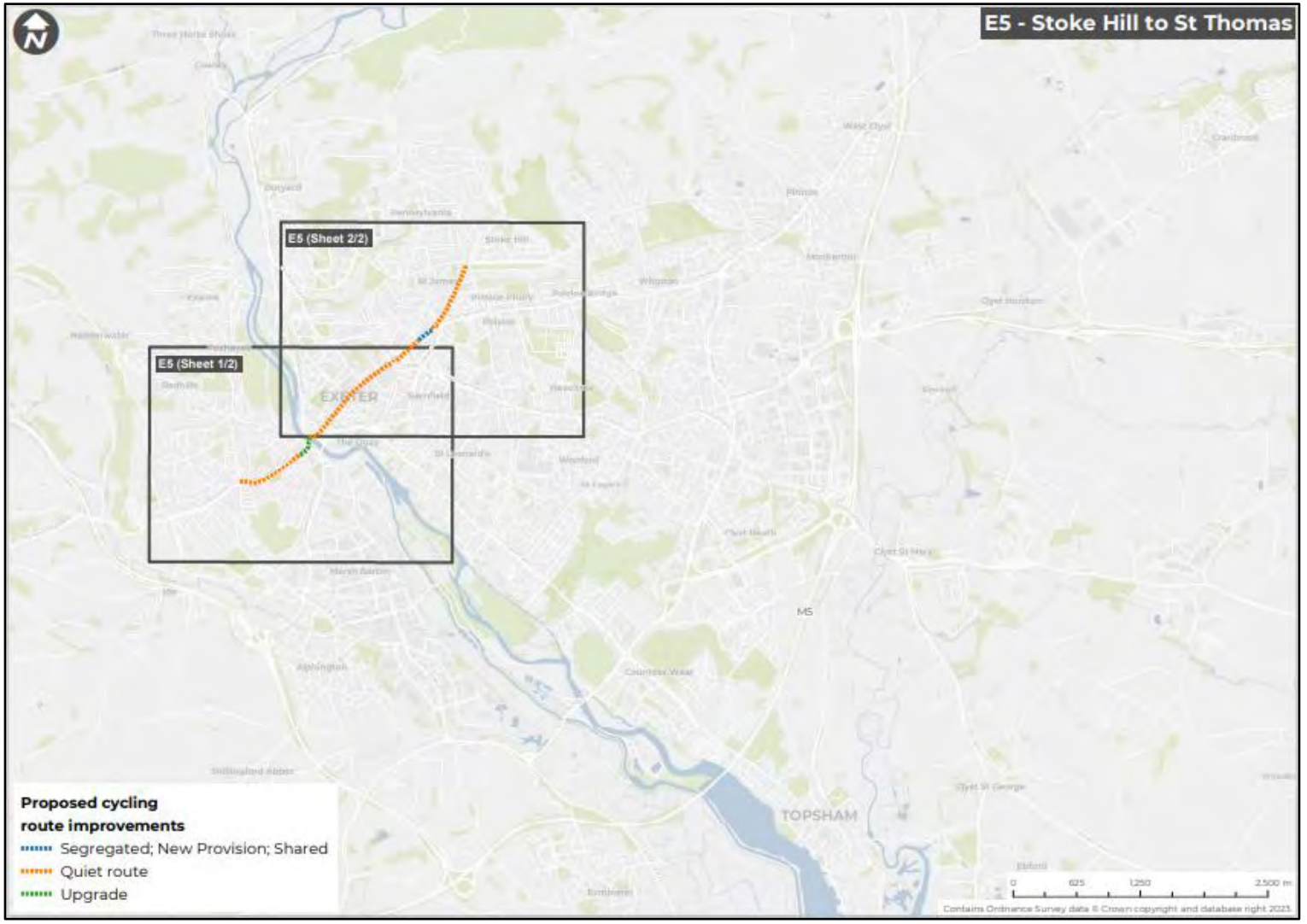
E5 - Stoke Hill to St Thomas

Estimated Construction Cost - £5,800,000 (High cost)

E5 connects the St Thomas residential area and local centre to and through the city centre, continuing up to the Stoke Hill area where it links to the east west E4 route.

The route tackles some of the most challenging areas for cycling in the city where space is dominated by heavy traffic. These include, Cowick Street, Exe Bridges, Fore Street, Sidwell Street, Odeon roundabout and Old Tiverton Road.

Provision is likely to be a mix of protected and off-road cycle facilities on the main roads as well as through the main junctions. Modal filters such as bus gates are also being considered to reduce the volume of general traffic on the roads where dedicated provision isn't feasible.

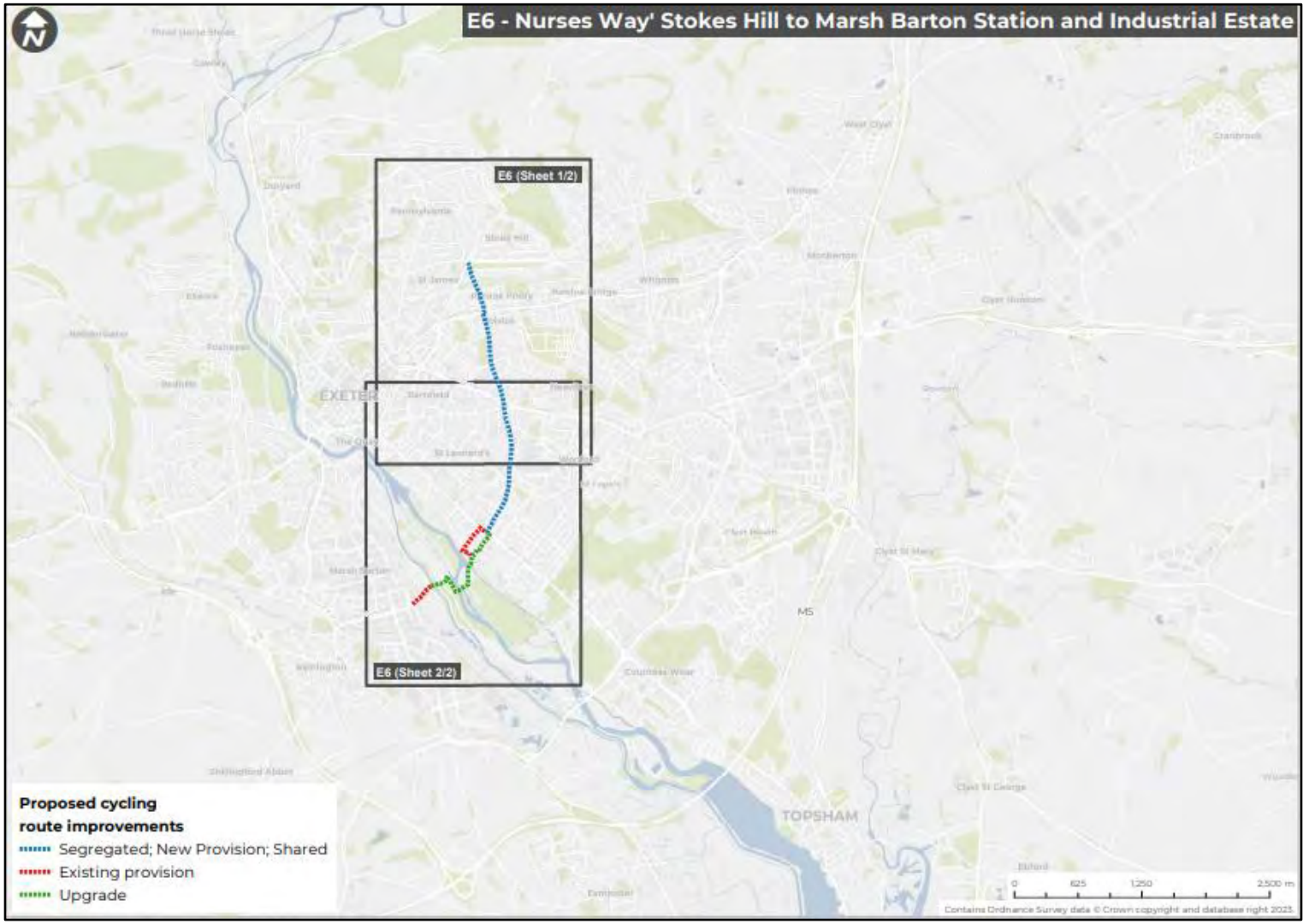


E6 - ‘Nurses Way’ Stoke Hill to Marsh Barton Station and Industrial Estate

Estimated Construction Costs - £4,400,000 (Medium cost)

There is an absence of coherent north/south cycling routes within the city. E6 links major residential areas to two of the city’s largest employers at the Royal Devon Exeter Hospital and County Hall as well as linking with routes to the new Marsh Barton Station and Industrial estate.

The route follows several busy roads in the city and so protected provision is needed, including through junctions. Lighting is proposed from Marsh Barton Station, making the route suitable for year-round usage.

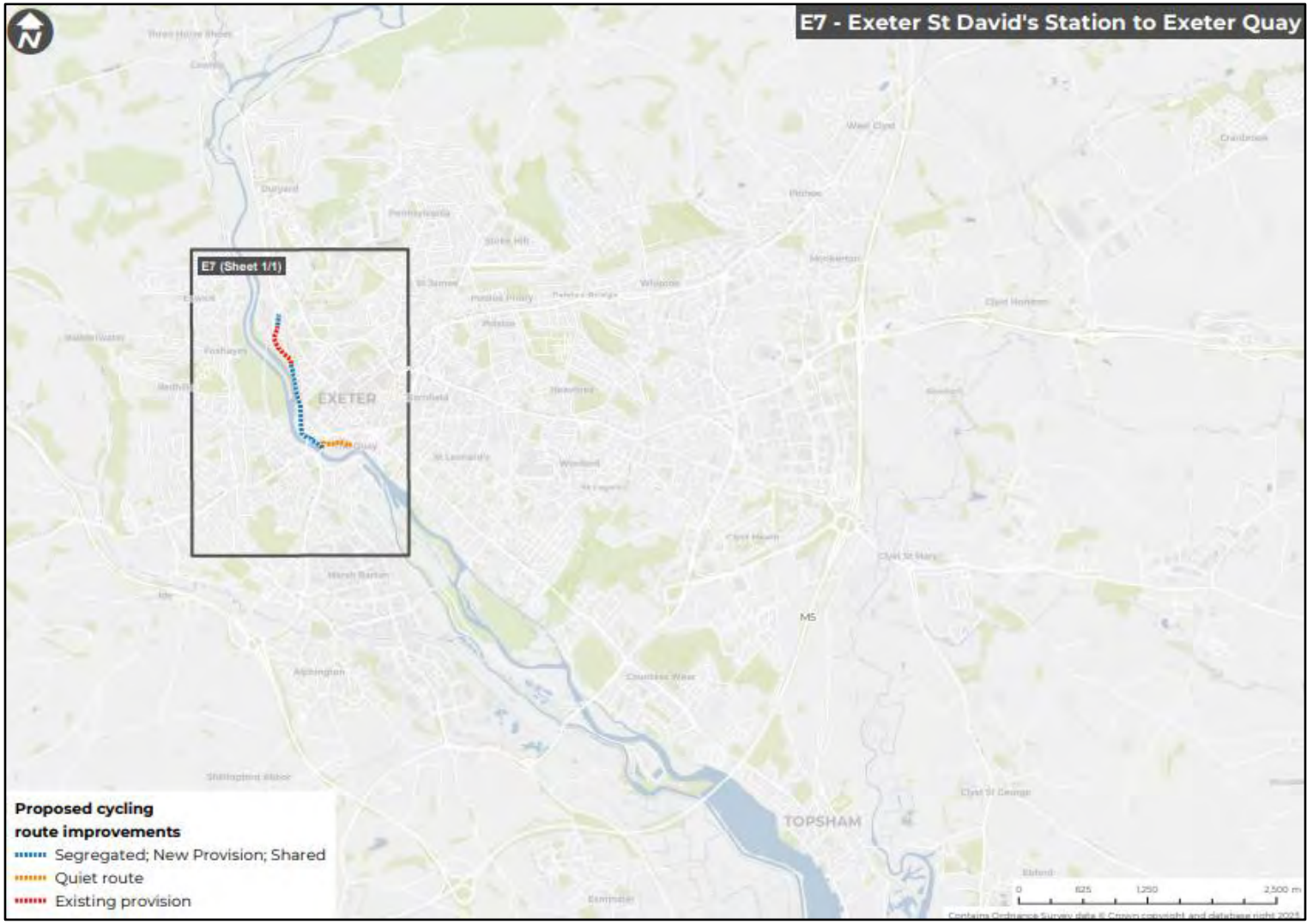


E7 - Exeter St David's Station to Exeter Quay

Estimated Construction Cost - £3,300,000 (Medium cost)

E7 is a direct and level route from Exeter St David's station to Exeter Quay allowing people on cycles to avoid lengthy alternative routes and traffic on Exe Bridges and Bonhay Road. The route will form a useful alternative connection from the future Liveable Exeter developments at Water Lane and West Gate. The proposals at Exe Bridges will also benefit pedestrians and improve access to the important historical ruins of the medieval Exe Bridge dating back to the 12th Century.

There is some existing cycling infrastructure on Bonhay Road, but it is not connected and requires review. There are however high traffic flows and some physical constraints that may limit potential design options. The main work at Exe Bridges will be reviewing traffic signal design at key junctions to incorporate pedestrian / cycle phases. This may require the filling in of one of the existing subways to provide the necessary space. Additional works will require the creation of some sections of shared use path.

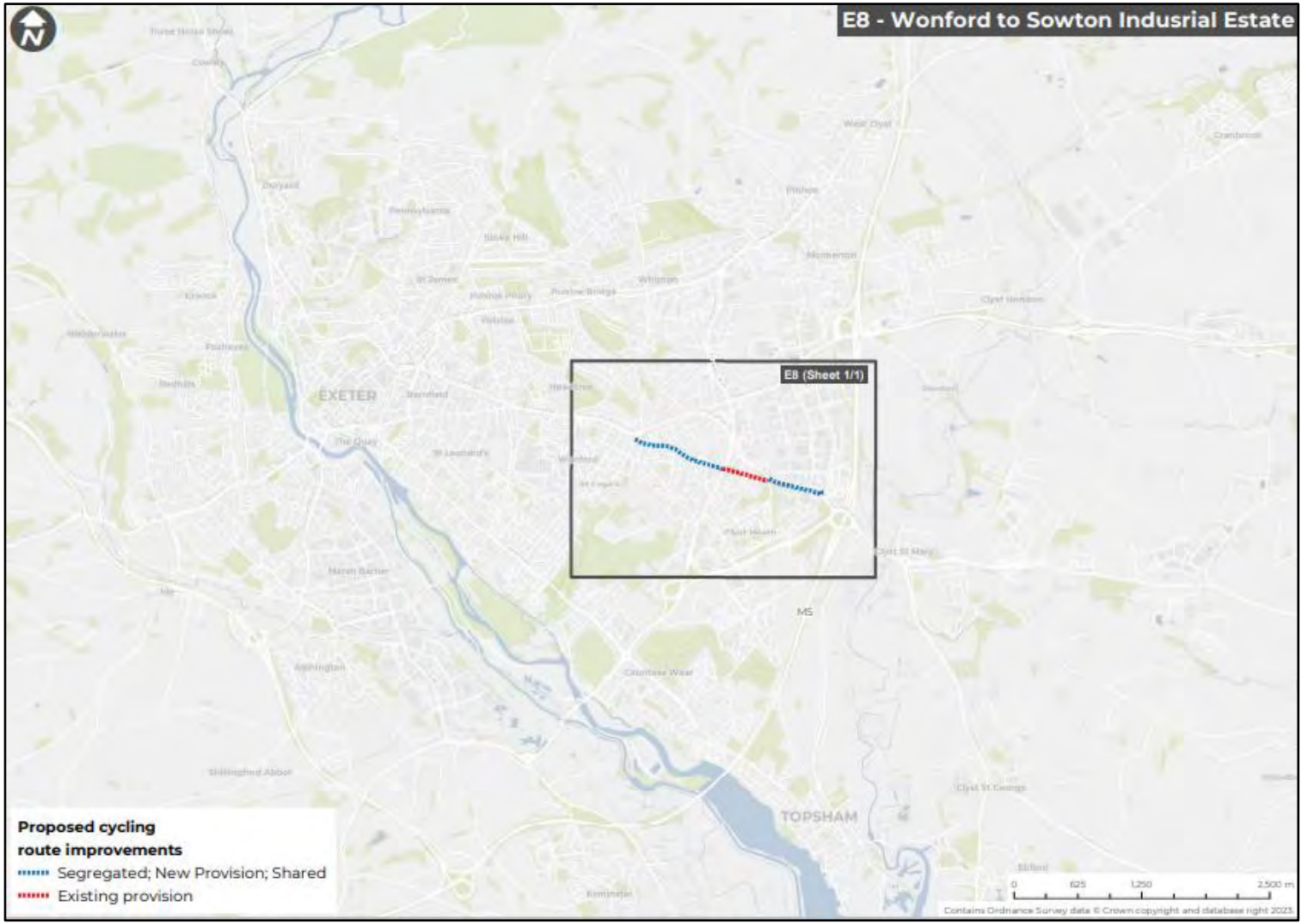


E8 - Wonford to Sowton Industrial Estate

Estimated Construction Cost - £1,600,000 (Medium cost)

Route E8 is a route connecting the residential community in the Rifford Road, Wonford / St Loyes area to employment at Sowton Industrial Estate whilst also passing St Peter's Church of England secondary school. Although this is a relatively short route, data shows that there are currently a large number of car trips that could potentially be replaced by cycle journeys if there was improved provision.

Proposed works would see the creation of dedicated protected cycle provision on Quarry Lane with a modal filter close to the school to reduce vehicular traffic in the area. There is a major challenge on this route on Sidmouth Road where the alignment goes under a tight railway arch that has no pedestrian / cycle provision and high traffic flows.



E9 - Topsham / Newcourt to City Centre via Wonford and St Leonards

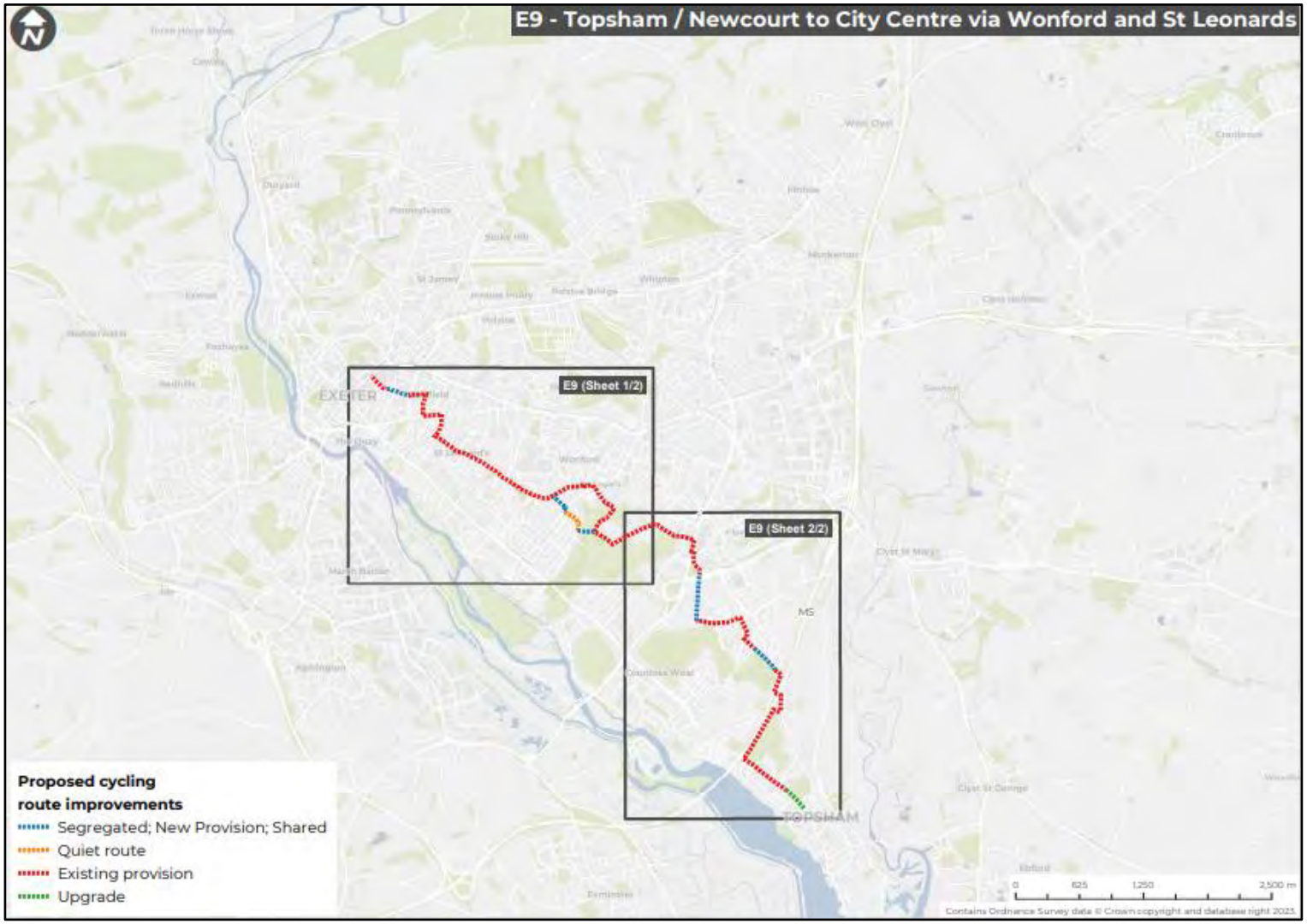
Estimated Construction Cost - £3,200,000 (Medium cost)

E9 connects the city centre with several Exeter's largest employment sites at Devon County Council, the Royal Devon and Exeter Hospital and Pynes Hill Business Park as well as the growing Newcourt residential development and the historic town of Topsham. The route passes through the existing residential areas of St Leonards and Wonford linking into the local area centres of both communities.

As well as being used for longer journeys, this route is likely to be popular for local shorter trips from home to the shops or to work. The route passes through the Wonford area which is a key target communities for the Exeter and Cranbrook Sport England Local Delivery Pilot where it has been identified that there are both low levels of physical activity and high rates of short car trips for workplace journeys.

From a leisure perspective the route also opens up the Ludwell Valley Park to cycling and creates a warmer welcome from the Wonford Playing Fields.

E9 uses a number of residential roads where it is not feasible to provide dedicated protected cycle infrastructure. In these areas modal filters, junction narrowing, and traffic calming are being used to reduce the volume and speed of traffic which will have the additional benefits of improving the sense of community in these areas.

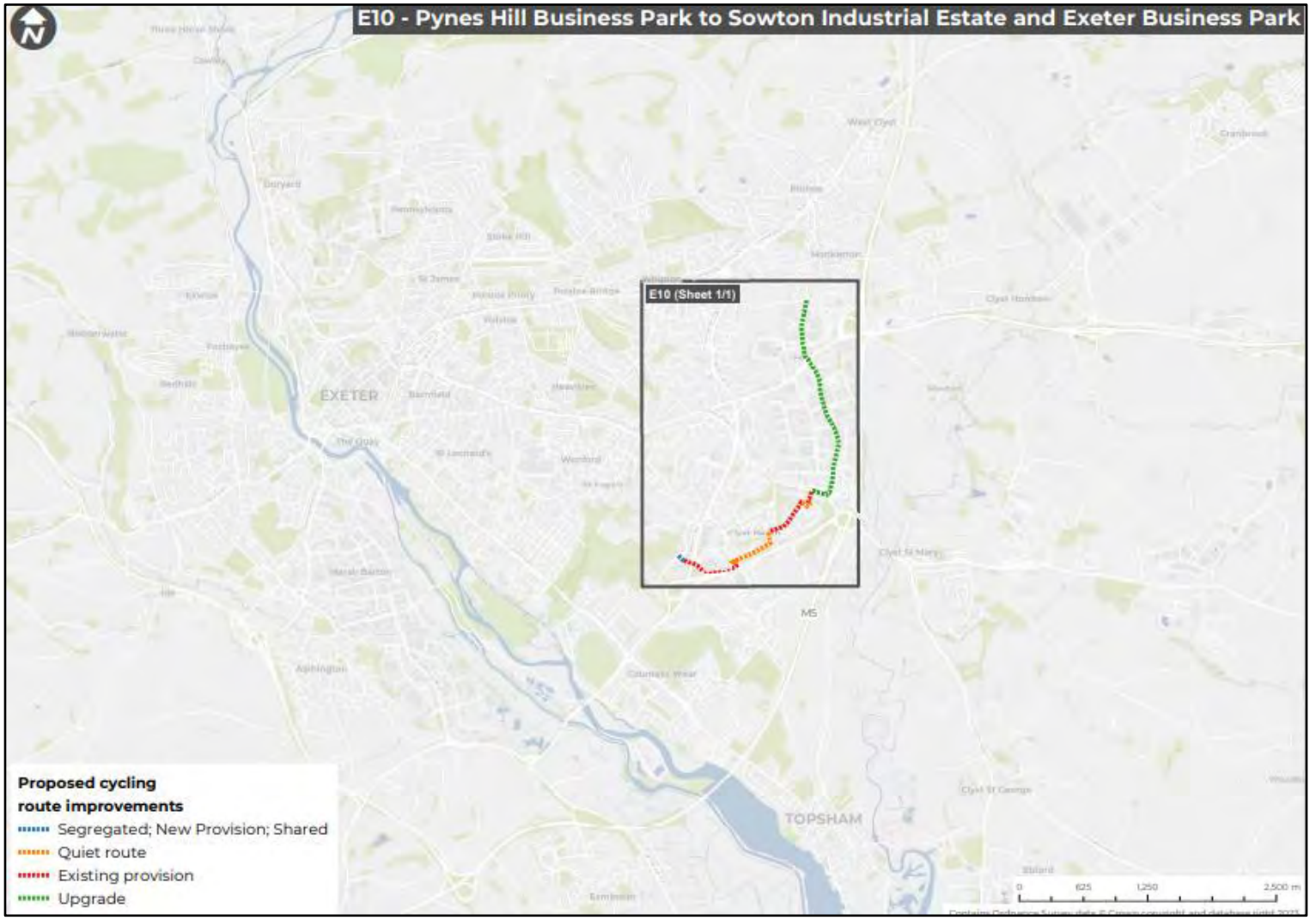


E10 - Pynes Hill Business Park to Sowton Industrial Estate and Exeter Business Park. Estimated Construction Cost - £3,000,000 (Medium cost)

E10 creates a linking route to and through employment sites at Pynes Hill, Sowton and Exeter Business Park that can be used for commuters getting to and from work as well as journeys between businesses throughout the day. It also passes through the residential communities at Clyst Heath, close to Digby and Sowton Station and through the retail park at Exeter Vale.

Some sections of E10 are in place, largely consisting of shared use paths with low levels of pedestrian movement. Work has recently been undertaken to deliver cycle lanes along Russell Way to remove a missing link.

Proposals include providing dedicated pedestrian / cycle crossings at the busy Moor Lane roundabout and removing the missing links on the path along Moor Lane. There is also scope to improve the feeder route through Sowton Industrial Estate along Kestrel Way and Bittern Road.



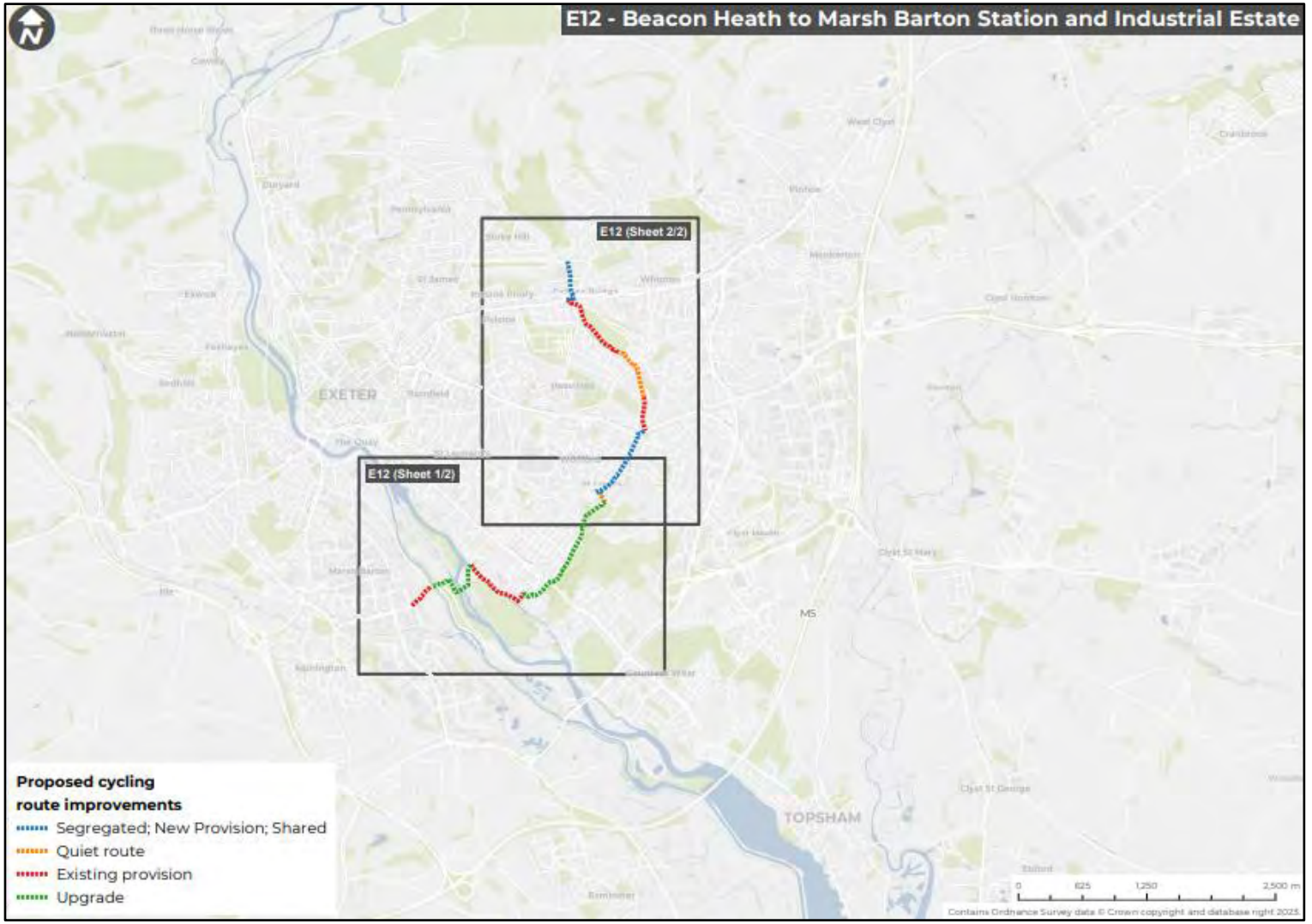
E12 - Beacon Heath to Marsh Barton Station and Industrial Estate

Estimated Construction Cost - £1,500,000 (Medium cost)

E12 closely follows the alignment of Exeter's Northbrook watercourse. As a result, for a hilly city the route is comparatively flat.

There is an absence of coherent north/south cycling routes within the city. This strategic route links major residential areas to key employment sites running close to the Royal Devon and Exeter Hospital as well as linking with Marsh Barton Industrial Estate. In addition, the route could be used as part of education journeys to a number primary and secondary schools in the city.

Many of the recommendations are upgrades to existing provision and seek to deliver a route of consistent quality with improved attractiveness and natural wayfinding. Lighting is proposed to make the route suitable for year-round usage.



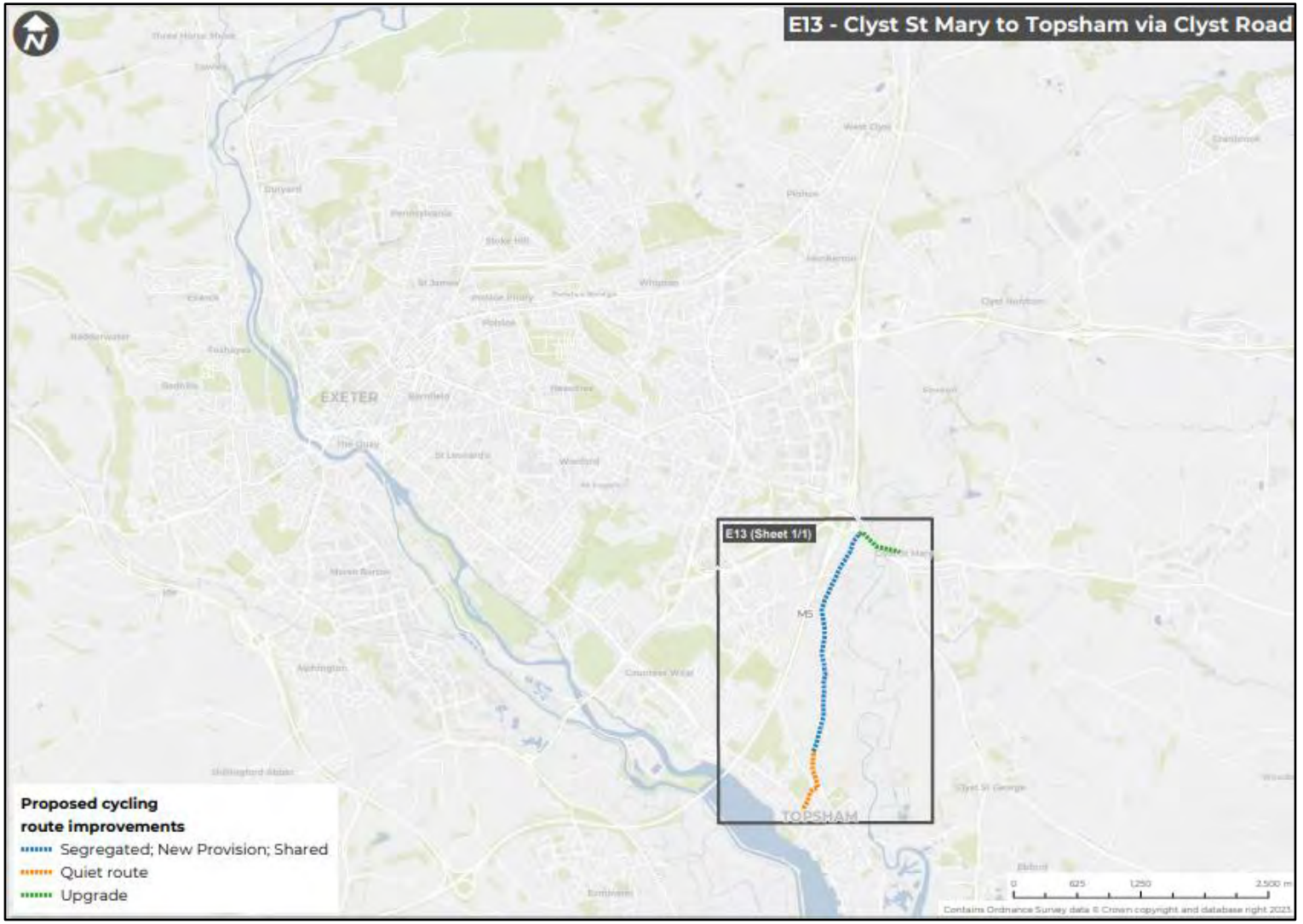
E13 - Clyst St Mary to Topsham via Clyst Road

Estimated Construction Cost - £900,000 (Low cost)

E13 follows Clyst Road connecting Topsham to Clyst St Mary. Development is taking place on Clyst Road, and further development is likely to take place in this area of East Devon. In addition, the Exeter Chiefs rugby ground at Sandy Park is an important trip attractor on match days

There is currently no dedicated walking and cycling provision on Clyst Road and it is likely to become increasingly busy with traffic.

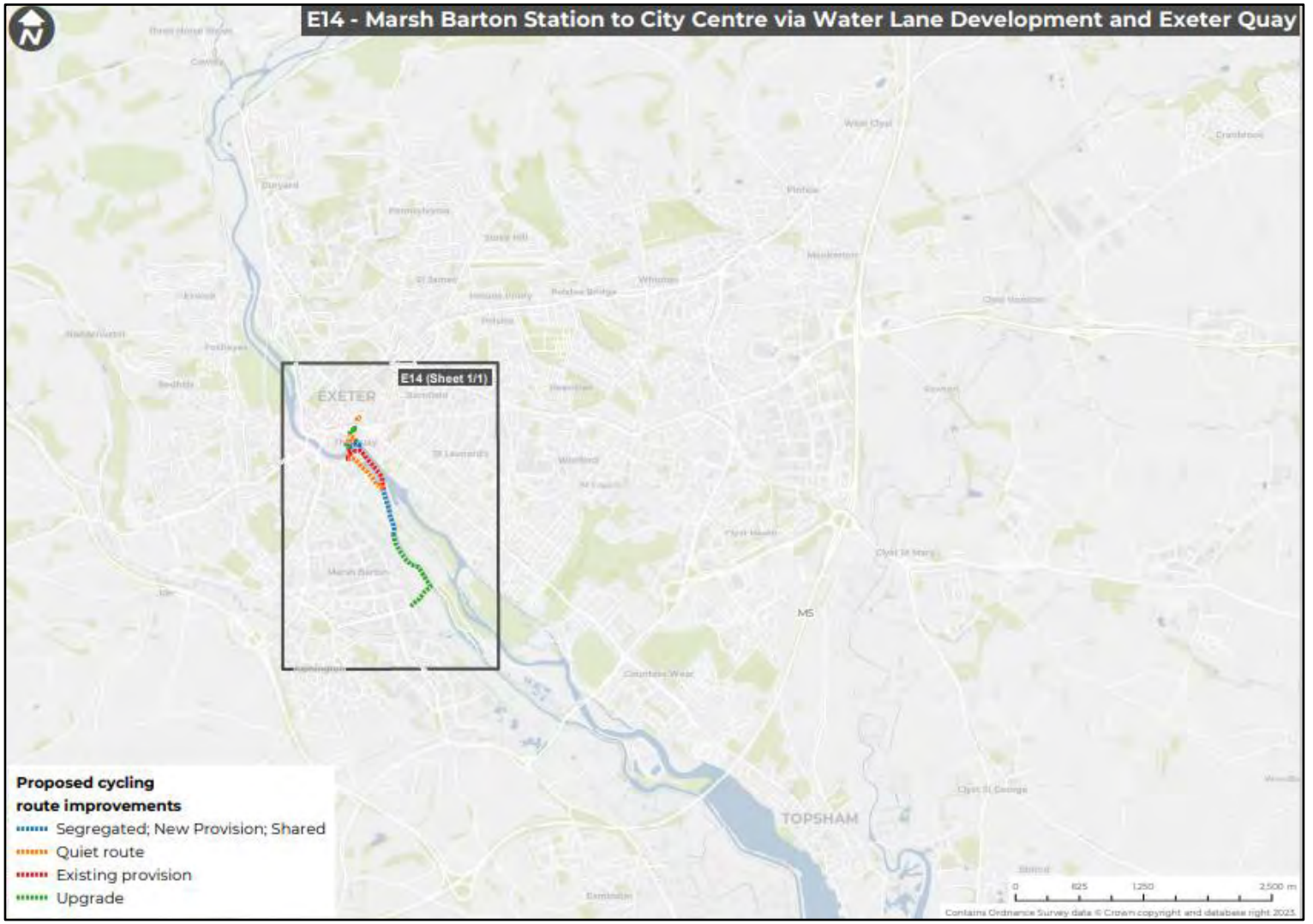
Direct off-road cycling and walking provision is recommended in this area as well as ensuring consistent speed limits are in place.



E14 - Marsh Barton Station to City Centre via Water Lane development and Exeter Quay. Estimated Construction Cost - £1,250,000 (Medium cost)

E14 will connect the future Liveable Exeter sites at Marsh Barton and Water Lane to leisure opportunities at Exeter Quay and onwards to the city centre as well as link to the new Marsh Barton rail station.

Proposed works would see upgrading and lighting of a route along Exeter Canal making it attractive for year-round usage as well as removing some of the missing links on route. At Exeter Quay there is a need to replace Mallison Bridge, allow contraflow cycling on Quay Hill and improve the connection to the city at South Street via the subway to Coombe Street.

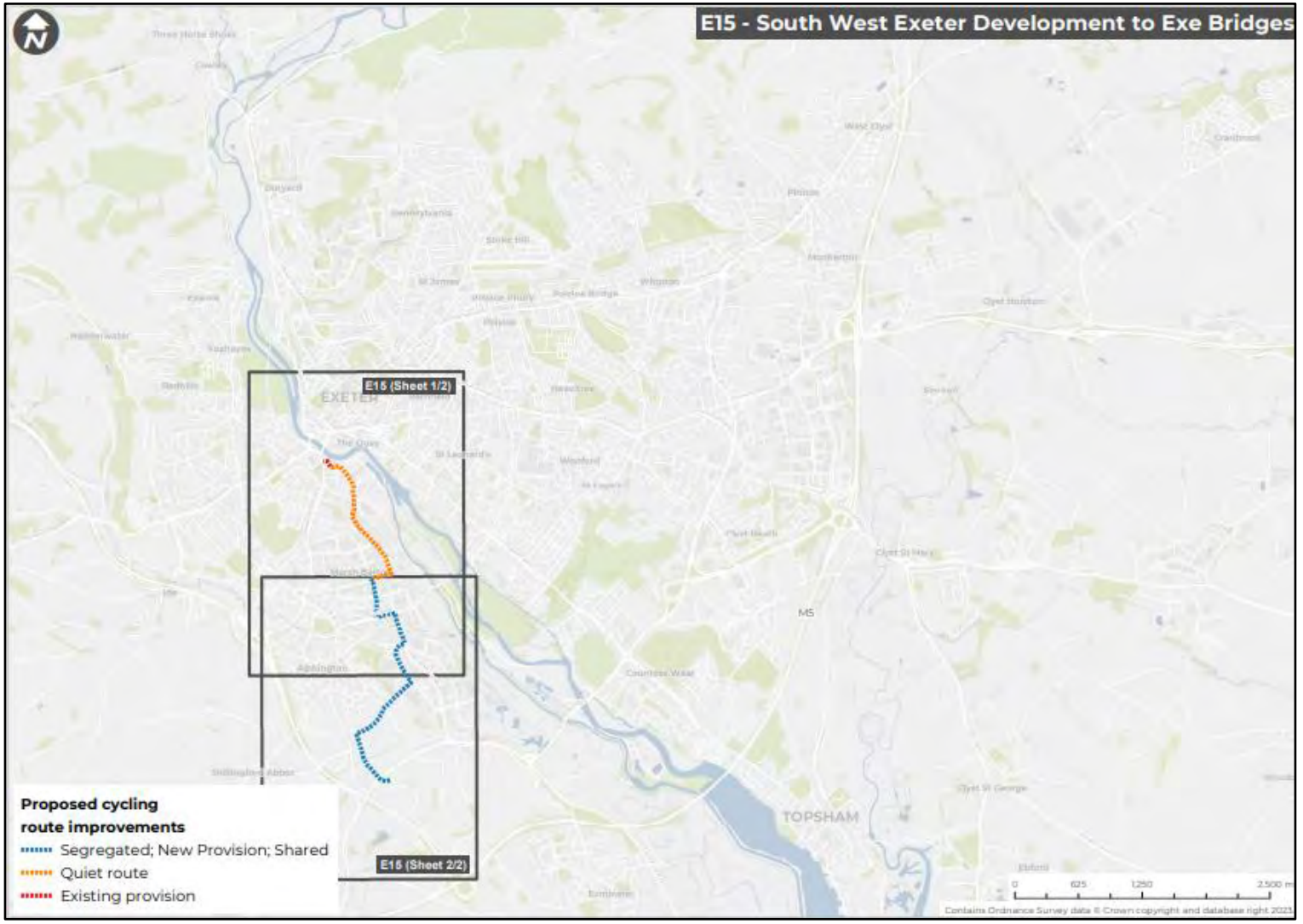


E15 - South West Exeter development to Exe Bridges

Estimated Construction Cost - £2,125,000 (Medium cost)

E15 will connect from the new school and residential development at South West Exeter via a new pedestrian / cycle bridge over the A379 through Alphington and the Marsh Barton Industrial Estate to the cycle network at Exe Bridges. The route will also link through the proposed Marsh Barton Liveable Exeter site.

The route will comprise of a new bridge over the A379 and off-road cycle routes to the bridge as well as some junction improvements to provide protected cycling provision linking into segregated cycle lanes. Sections of the route will also be on carriageway quiet lanes where traffic volumes and speeds are low.

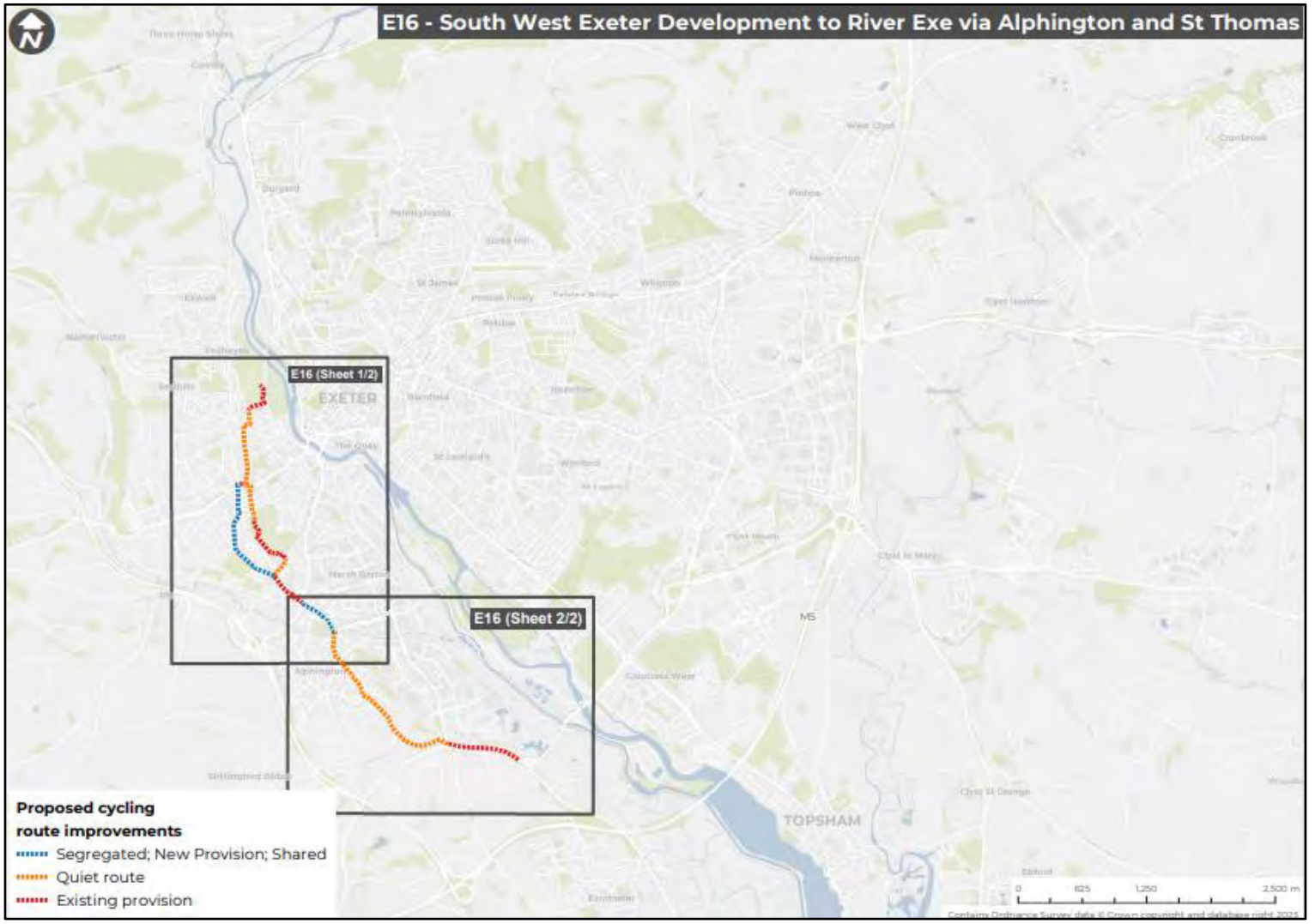


E16 - South West Exeter development to River Exe via Alphington and St Thomas

Estimated Construction Cost - £2,100,000 (Medium cost)

Route E16 connects the new South-West Exeter residential development at Matford to the Exe cycle route (E1) at Flower Pots playing fields via the existing residential communities of Alphington and St Thomas as well as passing West Exe College.

The proposed route links together existing sections of shared use provision with new sections of protected cycle lanes on Cowick Lane and quietways on Dawlish Road and Wardrew Road made possible by modal filters. An alternative alignment is also possible via the existing cycle route through Cowick Barton Playing Fields and Barton Road.

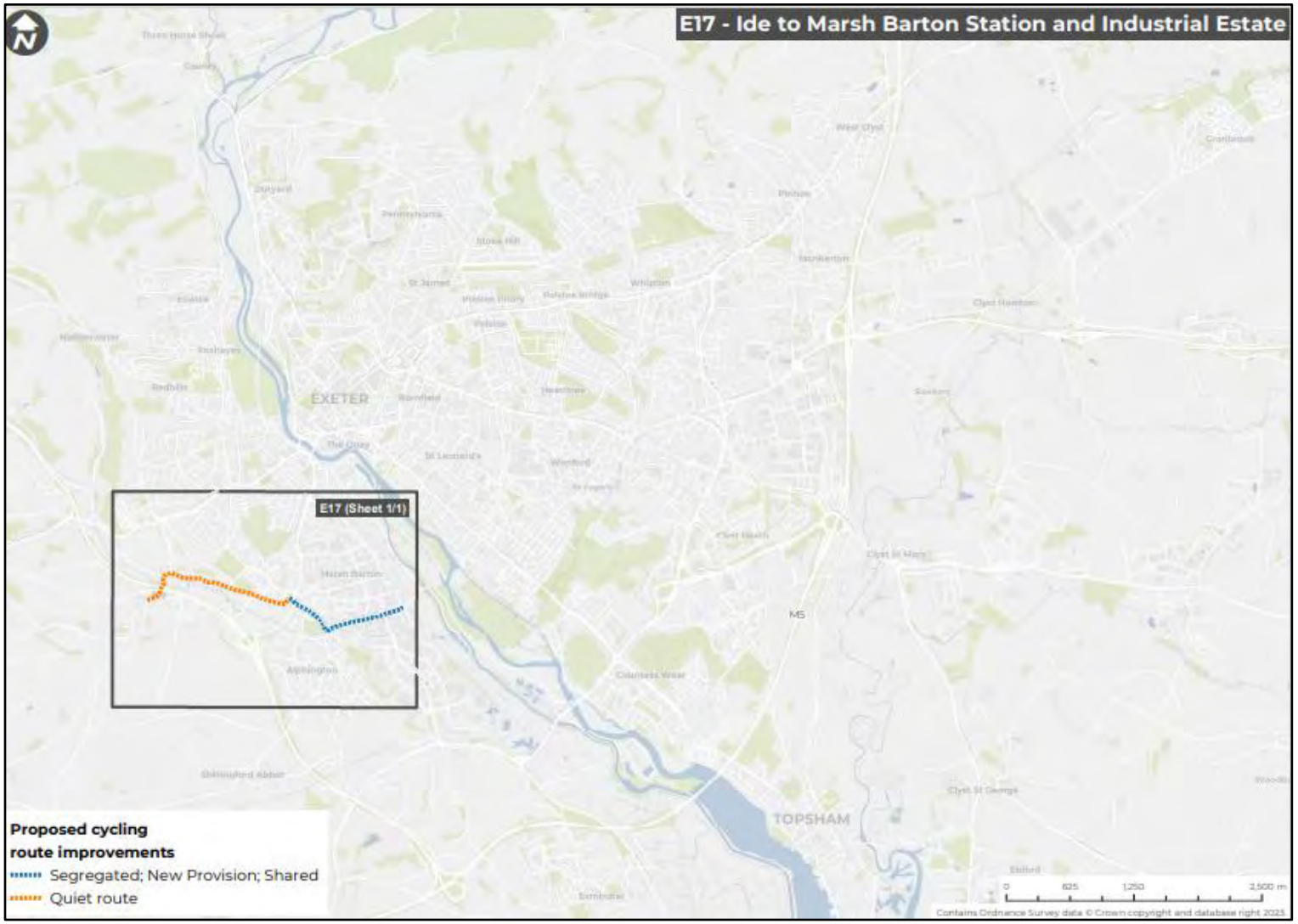


E17 - Ide to Marsh Barton Station and Industrial Estate

Estimated Construction Cost - £3,650,000 (Medium cost)

E17 connects the village of Ide to employment at Marsh Barton, the new Marsh Barton railway station and the city network. There is currently a lack of coherent safe cycle provision through Marsh Barton and with high traffic volumes it is off-putting to all but the most confident cyclists.

This route comprises of a recently delivered quiet route made possible with a modal filter on Bulls Farm Road as well as dedicated provision through Alphington and Marsh Barton. Works are likely to comprise a mix of shared use provision and protected lanes through Marsh Barton. Junction improvements are needed throughout Marsh Barton to deliver this route.

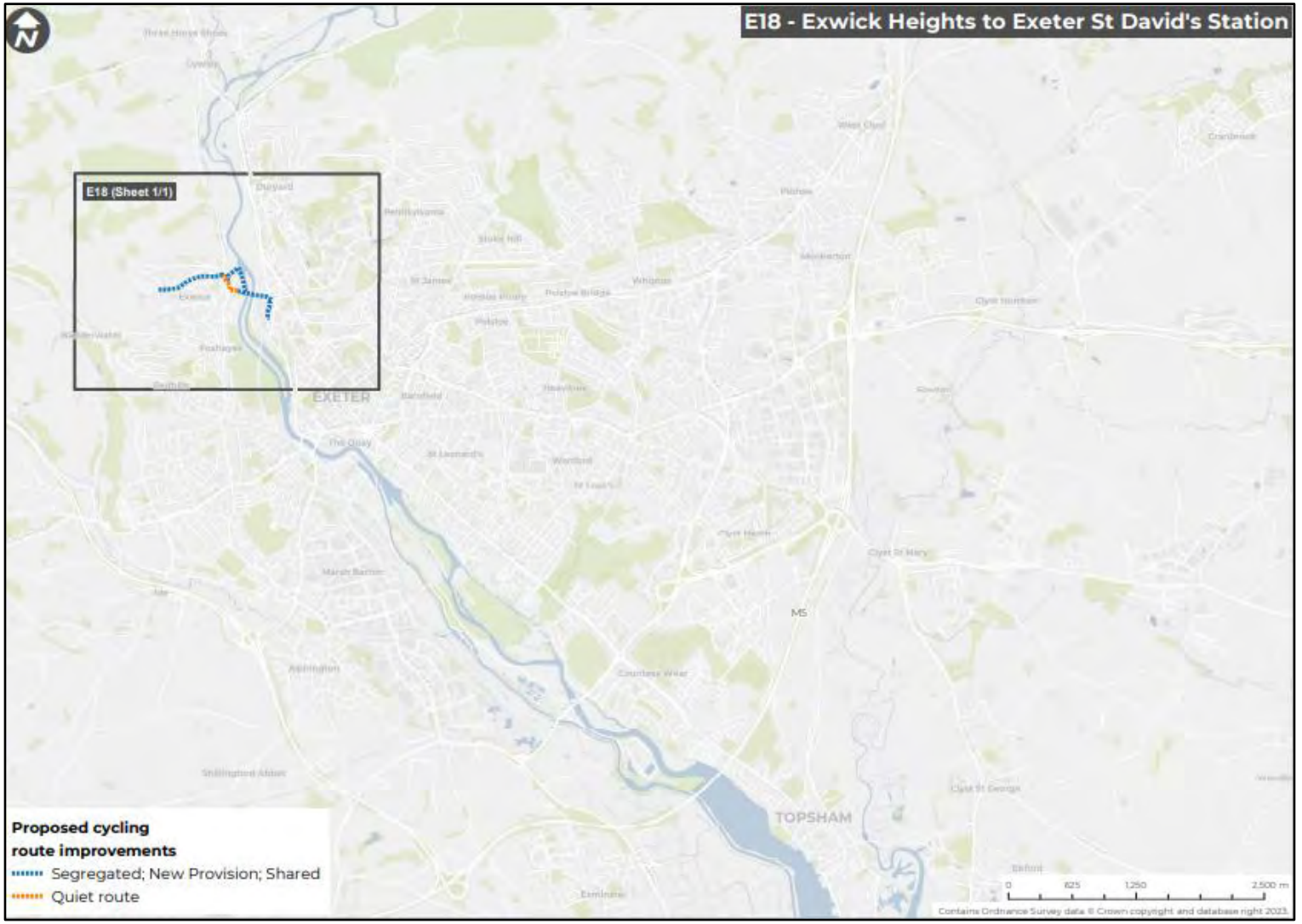


E18 - Exwick Heights to Exeter St David's Station

Estimated Construction Cost - £2,900,000 (Medium cost)

E18 will deliver an improved connection from the Kinnerton Way area of residential area of Exwick to Exeter St David's station and onward journeys on the proposed future cycle network. There is currently a lack of cycling provision in Exwick, in part due to the hilliness of the area. The increasing popularity of E-cycles removes some of the effort needed and presents an opportunity to create some high-quality direct cycle routes.

Opportunities include potential protected cycling provision on Kinnerton Way and an improved off-road connection to Station Road through open space alongside the Exe Flood Defence Scheme. Major works are required on Station Road with the potential for new walking / cycling bridges which will have the added benefit of improving connections from Exeter St David's station to the Exe cycle route / Exe Estuary Trail and the potential future Boniface Trail linking to Crediton.



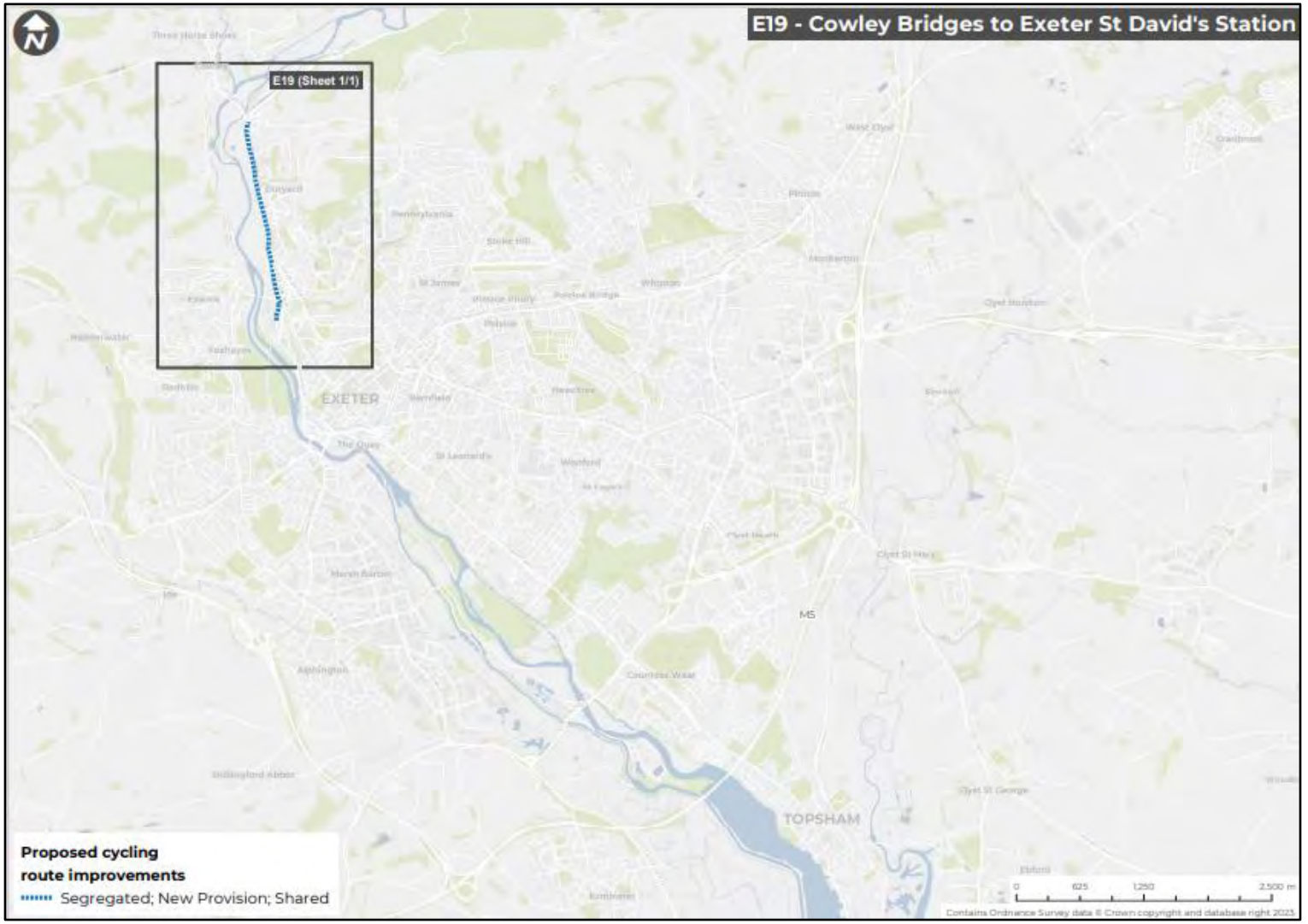
E19 - Cowley Bridges to Exeter St David's Station

Estimated Construction Cost - £800,000 (Low cost)

E19 runs along Cowley Bridge Road from the Cowley Bridge roundabout to Exeter St David's station. This linear route would connect residential and student accommodation as well education sites to the Exeter cycle network

Cowley Bridge Road is a busy strategic route into the city for traffic travelling from the Crediton and Tiverton direction. There are some challenging sections where the highway is narrow and bounded by walls with limited opportunity to deliver high quality provision.

Previous design work has been carried and identified scope for a shared use pedestrian / cycle route along Cowley Bridge Road. This could be reviewed using the latest design guidance to understand what is feasible in this challenging space.

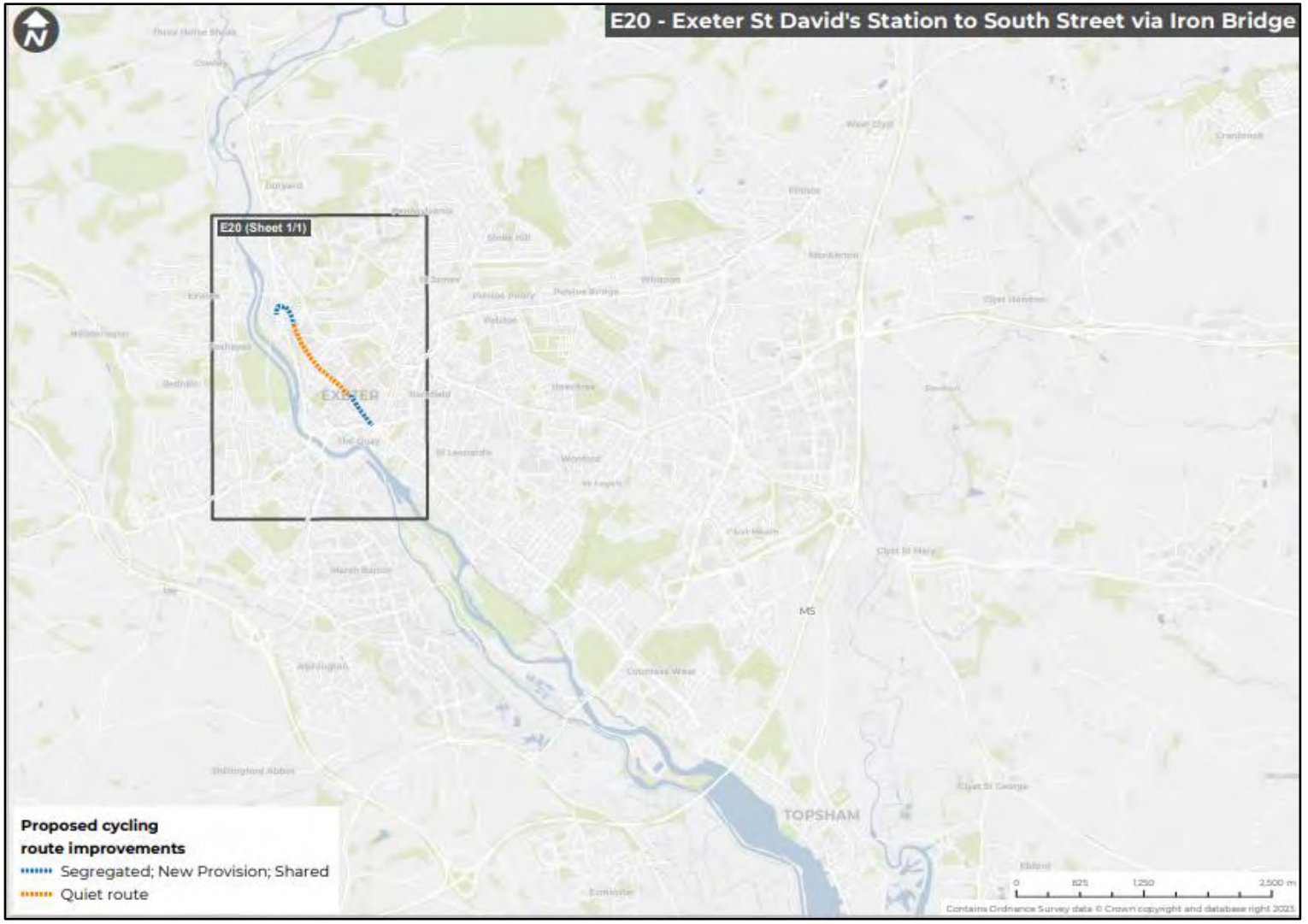


E20 - Exeter St David's Station to South Street via Iron Bridge

Estimated Construction Cost - £2,500,000 (Medium cost)

E20 connects Exeter St David's station to the southern end of the city centre at South Street and the future 'South Gate' Liveable Exeter site. There is also a Liveable Exeter site 'Red Cow' at St David's Station that will also benefit from this route.

Cycling connections from the city centre to Exeter St David's station area are currently poor with high traffic levels in the area. This route will comprise a redesign of the double mini roundabouts at the bottom of St David's Hill as well as protected lanes on St David's Hill itself. Iron Bridge Road has already become a quiet route with the recent modal filter here reducing traffic in the area. A cycle contra-flow on South St will complete this route creating a more direct connection to the city centre than is currently possible.

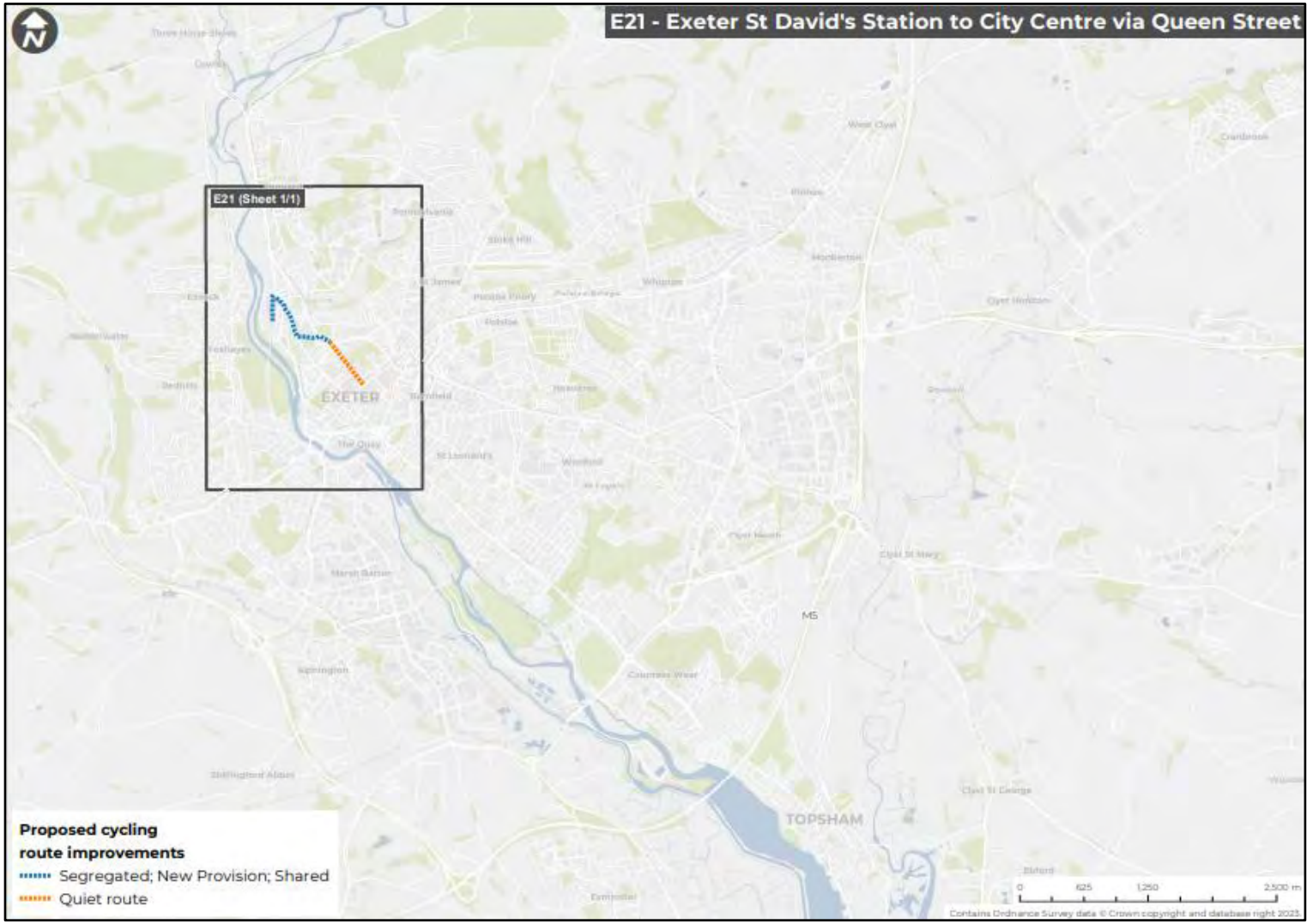


E21 - Exeter St David's Station to City Centre via Queen Street

Estimated Construction Cost - £1,300,000 (Medium cost)

E21 is a spur route off proposed route E20 this route will improve cycling and walking connections from the heart of the city centre to Exeter St David's station. With the future Liveable Exeter site at 'Red Cow' this will be an important link.

Works will provide dedicated provision on Hele Road and a potential remodelling of the Queen St / Clock Tower junction, reclaiming this historic monument to create an improved public space. Queen St has already had some recent improvements as part of DfT Emergency Active Travel Funding, but further work is needed to reduce the dominance of traffic on this environment and provide improved provision for pedestrians and cyclists.

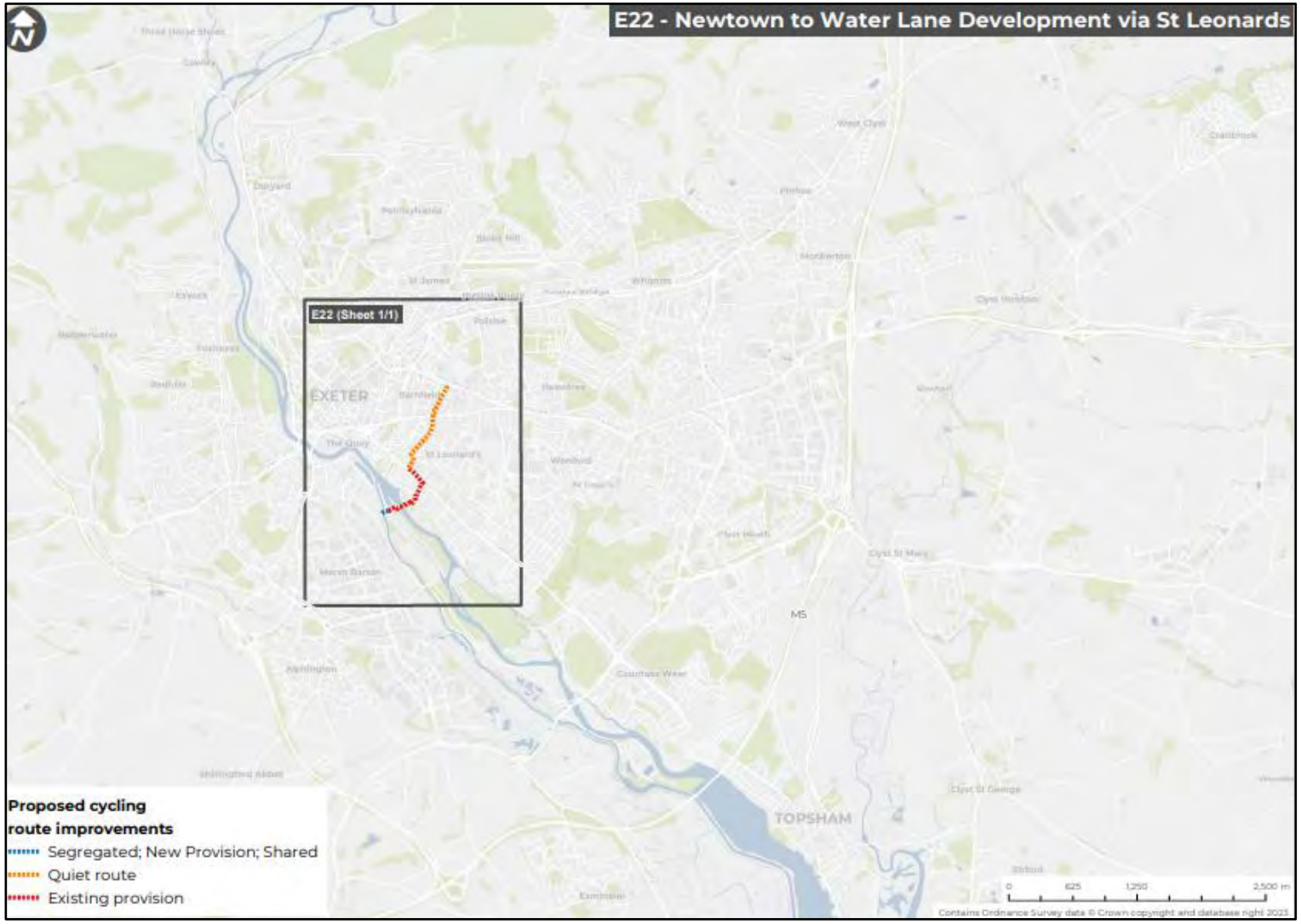


E22 - Newtown to Water Lane development via St Leonards

Estimated Construction Cost - £1,300,000 (Medium cost)

Route E22 will create an improved link from the residential communities of Newtown and St Leonards to leisure opportunities along the River Exe and employment at Marsh Barton. It would also link the future Marsh Barton and Water Lane Liveable Exeter sites to the city centre, St Leonards Primary School and St Luke's University campus.

The main works would be a new bridge over the Exeter Canal to create a more direct link in the area and then some localised improvements along the Exe cycle route. In St Leonards a potential modal filter on St Leonard Road would reduce through traffic in the area and also have scope to reduce school run traffic.



5.5 PRIORITISATION AND ESTIMATED CONSTRUCTION COSTS

5.5.1. The costs of each of these scheme proposals has been estimated based on typical costs per km for linear interventions (such as two-way cycle track or shared-use paths) and typical costs of other non-linear interventions (such as modal filters and signalised crossings).

5.5.2. Given that proposals are at an early stage of development the costs presented are construction only estimates, therefore excluding uplifts and budgeting for uncertainties. Costs were undertaken in March 2022 prior to the UK economy experiencing significant levels of inflation. It is therefore likely that construction costs will be higher than those set out below.

5.5.3. Due to the nature of Local Authority funding, the majority of funding for proposals is likely to be realised through bids to central Government. Funding sources are also likely to include S106 developer contributions and contributions from the Community Infrastructure Levy (CIL).

5.5.4. With an ambitious cycle network proposed, it is important to prioritise investment in the routes which are most effective at meeting Devon County Council's objectives. A multi-criteria prioritisation exercise was undertaken to identify priority schemes from the long list of 20 cycle routes that are deliverable within 10 years, and to highlight key routes for short-, medium- and long-term delivery.

Prioritisation Methodology

5.5.5. Each route was scored against a range of quantitative and qualitative criteria, with the scores compiled to provide an overall ranking of the routes.

5.5.6. The average score for each route was calculated allowing routes to be ranked according to alignment with the criteria. These have then be altered in consideration of public feedback. The final ranking is shown in table below. Schemes higher up the ranking score the best against policy and technical objectives, with those lower down the ranking scoring less well. The ranking should be a key consideration in what schemes get delivered first.

5.5.7. On the basis that one route a year could be constructed, the first 9 or 10 schemes in the ranking list should be delivered during ten-year LCWIP period.

Rank (Ordered)	Route ID	Route Name	Route Cost
1	E9	Topsham/Newcourt to City Centre via Wonford and St Leonards	£3,200,000
2	E3	City Centre to Cranbrook	£1,750,000
3	E1	Exeter St David's Station to Topsham	£750,000
4	E15	South West Exeter development to Exe Bridges	£2,125,000
5	E6	'Nurses Way' Stoke Hill to Marsh Barton Station and Industrial Estate	£4,400,000
6	E14	Marsh Barton Station to city centre via Water Lane development and Exeter Quay	£1,250,000
7	E4	Exeter University to Science Park	£7,500,000
8	E7	Exeter St David's Station to Exeter Quay	£3,300,000
9	E12	Beacon Heath to Marsh Barton Station and Industrial Estate	£1,500,000
10	E20	Exeter St David's Station to South Street via Iron Bridge	£2,500,000
11	E21	Exeter St David's Station to city centre via Queen Street	£1,300,000
12	E10	Pynes Hill Business Park to Sowton Industrial Estate and Exeter Business Park	£3,000,000
13	E5	Stoke Hill to St Thomas	£5,800,000
14	E13	Clyst St Mary to Topsham via Clyst Road	£900,000
15	E17	Ide to Marsh Barton and Industrial Estate	£3,650,000
16	E19	Cowley Bridges to Exeter St David's Station	£800,000
17	E16	South West Exeter development to River Exe via Alphington and St Thomas	£2,100,000
18	E22	Newtown to Water Lane development via St Leonards	£1,300,000
19	E8	Wonford to Sowton Industrial Estate	£1,600,000
20	E18	Exwick Heights to Exeter St David's Station	£2,900,000

5.5.8. Other routes can be considered for delivery should the context changes, for example if new development comes forward and developer funding is secured.

5.6 POTENTIAL WIDER CYCLE CONNECTIONS

5.6.1 As part of the Exeter LCWIP potential opportunities for cycling connections to the wider villages and settlements and growth areas that are outside the city of Exeter have been proposed. This will support active travel access from areas on the edge of the city through new infrastructure links and/or creation of green lanes; and provide strategic connections to existing settlements and areas of future development within cycling distance of Exeter.

5.6.2 Potential opportunities are shown in Figure 6. These have been derived from an initial review of priorities, in combination with professional judgement by officers about the likely feasibility of these.

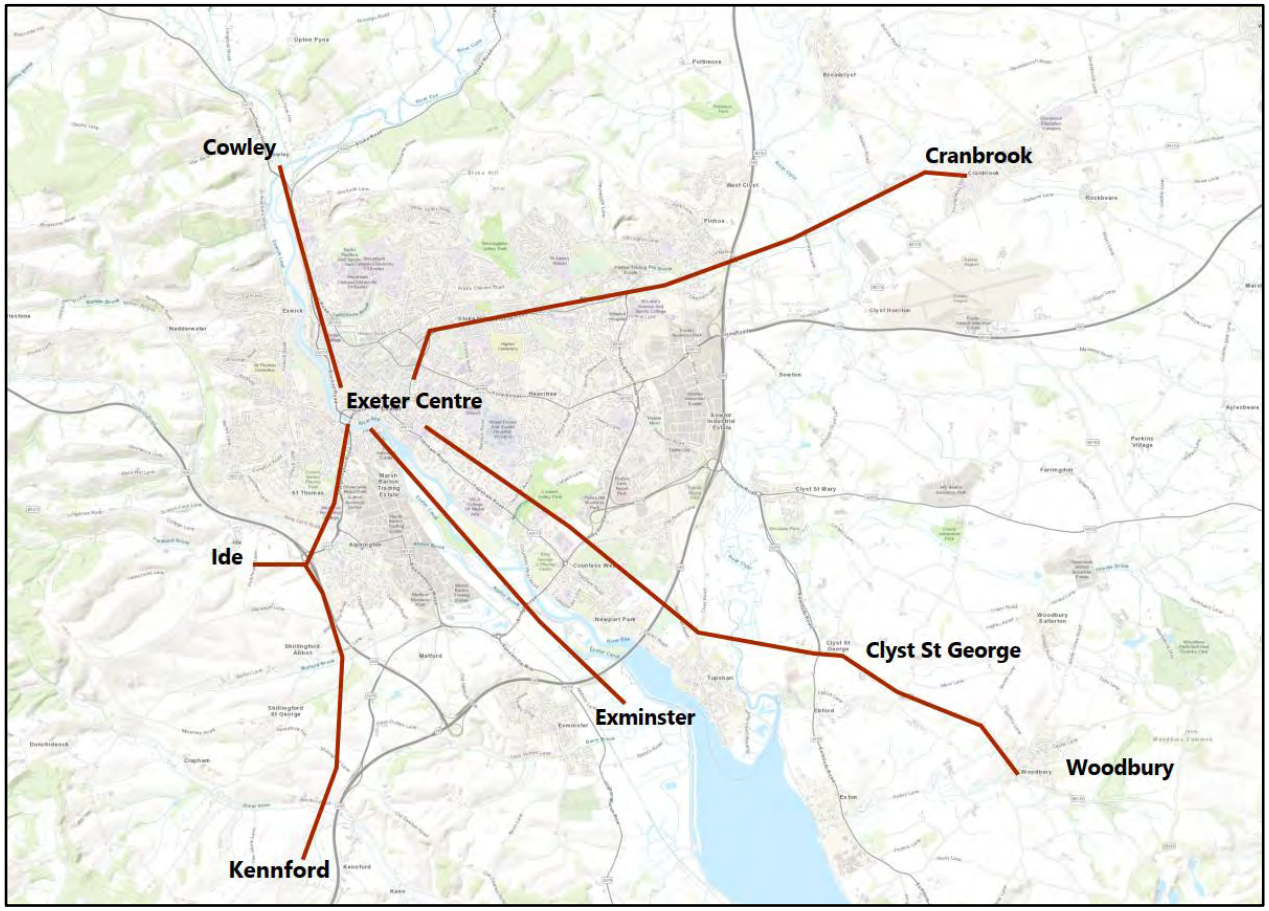


Figure 6: Potential opportunities for wider cycle connections outside of Exeter

ACCESS TO CYCLES AND SUPPORTING MEASURES

5.5.9. The development of the LCWIP primarily focuses on the development of cycling and walking infrastructure. Opportunities for the development of cycle parking, cycle training, changing, and washing facilities and bike maintenance areas will also need to be considered to maximise sustainable, long-term modal shift.

RESIDENTIAL CYCLE PARKING

5.5.10. This LCWIP also recognises that storage of cycles at home can sometimes be a barrier to cycling, particularly for flats or houses that lack outdoor storage space. The needs for residential cycle parking often differ to destination cycle parking, with many cycles parked for long periods of time, exposed to the elements.

5.5.11. Removal of a single parking space can facilitate the installation of multiple cycle parking spaces, making an efficient use of kerb space. Different parking solutions should be further explored before being rolled out across Exeter, but on-street Sheffield stands, or cycle hangers could prove part of the solution.

6 Network Planning Walking

6.1 EXISTING WALKING TRIPS & ISSUES

6.1.1. Walking is the second most popular mode of travel to work in Exeter, with volumes steadily increasing from 18% in 1991 to 22% in the 2011 census – accounting for approximately 12,500 daily trips. The highest numbers of people walking to work live in central areas of the city. These high levels of walking in the central area are reflected in higher numbers of pedestrian casualties in the central area and along main roads.

6.1.2. There are several key employment hotspots within the city, namely: the city centre, Exeter University (Pennsylvania), the RD&E (Wonford / Heavitree) and Marsh Barton and Sowton Industrial Estates. Some of these areas, such as the city centre and the RD&E, boast some of the highest levels of commuting via walking in the city (between 32% to 40% of total commuters).

6.1.3. Other areas, particularly Marsh Barton and Sowton Industrial Estates, show significantly poorer levels of walking as a method of commuting (between 8% to 16% of total commuters). Despite the fact that commuting via private vehicle may be higher in these areas due to the nature of the job and requiring a vehicle for the transportation of equipment and goods, there remains significant room for improvement.

6.1.4. It is notable that a smaller proportion of employed residents living west of the Exe usually walk to work despite the proximity to the city centre and high density of population. This appears to highlight how major barriers to movement, such as the River Exe and topography, can potentially have an impact on mode choice. There are a limited number of crossing points of the river and railway which can make walking routes significantly longer.

6.1.5. There are key movements in the city less than 2.5km with a lower-than-average proportion of walking trips. The five worst routes all have a walk mode share which is 20% or less than the average walk mode share. The worst commuter walking routes highlight links between Sowton and, Whipton, Wonford, and Topsham, which is likely to be due to a range of factors including, greater severance due to barriers including A roads, rail line, and the river, less attractive walking routes and lower density development with free and relatively unconstrained parking. This evidence indicates that there is an opportunity to improve walking conditions in these areas.

6.1.6. Pedestrian intercept surveys in the city centre were carried out in 2010, enabling mapping of the journey origins and identification of the method of travel used for those journeys. While this data is now very dated, it still offers a useful insight in to walking trips to the city centre.

6.1.7. Most people travelling shorter distances (<2km) walk to the city centre, with the survey identifying a concentration of walking trips originating from the north and east of the city centre. However, the Topsham Road corridor, St Thomas, and Exwick have much lower levels of walking to the city centre, with the bus being a much more popular option for shorter trips for these residents. This may be due to less attractive walking routes and barriers caused by the River Exe and Western Way.

6.1.8. Analysis undertaken of commute mode splits from St Thomas to inform the Water Lane development, identified that despite the reasonably short distances of some of these trips, the car is still the main method of travel for trips to the RD&E Hospital, St Leonards, and the University of Exeter. The lack of direct and attractive routes across the river, resulting in much longer walk and cycle distances would seem like a likely contributory factor in this.

IDENTIFYING CORE WALKING ZONES

6.1.9. The next stage of the LCWIP process is to identify “Core Walking Zones”, normally consisting of walking trip generators that are located close together – such as town centres or business parks.

6.1.10. The district centres identified in the Exeter Local Plan (Core Strategy Development Plan Document, 2012) have been used to form the basis of the Core Walking Zones. In addition to these district centres, Exeter St David’s has also designated as a Core Walking Zone, in acknowledgement of its importance as a transport interchange and in recognition of the high numbers of people continuing their journeys by foot.

6.1.11. A 400m and 2km isochrone has been drawn around the centre point of each district centre as shown in Figure 7, to help identify typical walking distances from the centre points. These are:

- Exeter City Centre
- St Thomas
- Heavitree
- Topsham
- Exeter St David’s

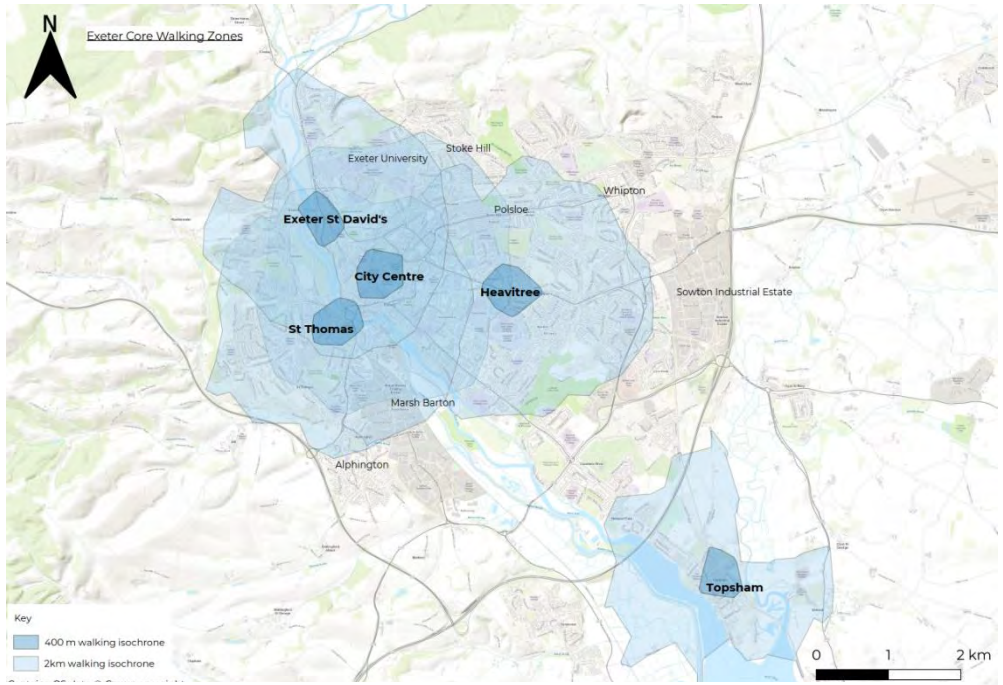


Figure 7: Core walking zones identified

6.1.12. From this long-list of potential options for the Core Walking Zones, Exeter City Centre has been selected as the initial priority of focus given that it is the focal point for Exeter with the highest levels of footfall.

EXETER CITY CENTRE CORE WALKING ZONE

6.1.13. Proposed walking routes have been identified within the Exeter City Centre Core Walking Zone itself, as well as the connections to it from surrounding origin points, such as the neighbouring residential areas. These have been categorised into primary and secondary networks to help identify which routes should be prioritised for improvement (see Figure 8). Figure 9 then shows the routes which have been selected as the initial priorities, based on officer assessment of the key routes requiring improvement. In some cases, these will complement or enhance the cycle routes proposed in the previous chapter.

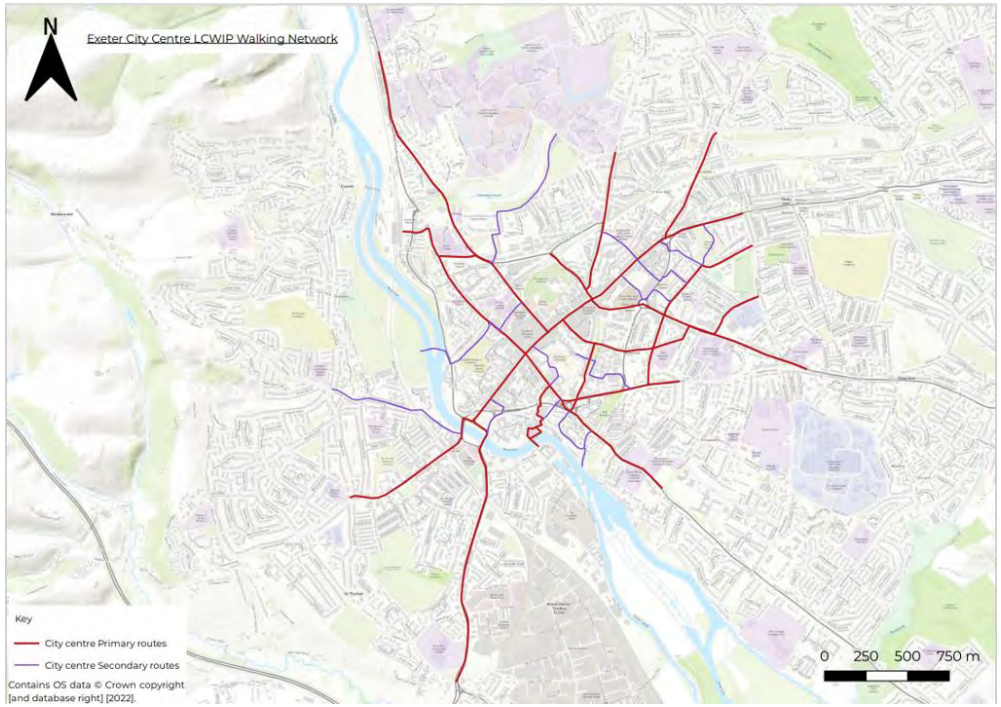


Figure 8: Exeter City Centre proposed walking improvements

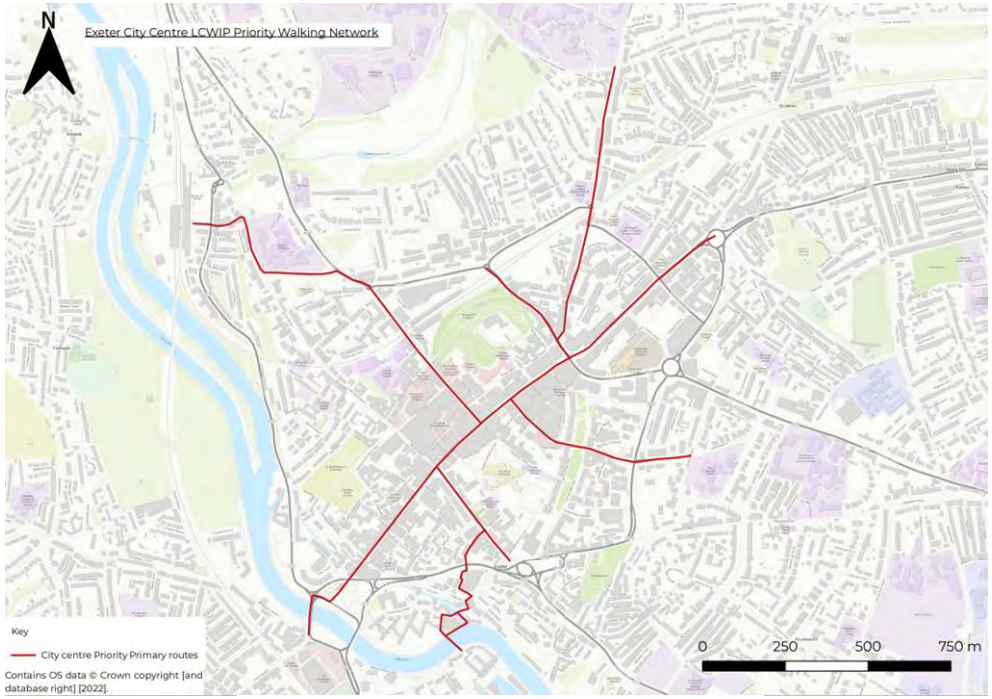


Figure 9: Prioritised city centre walking routes

LCWIP Proposed Improvements

6.1.14. High level infrastructure plans have been identified for the proposed primary walking network. These improvements have been designed to improve the safety, ease, and attractiveness of walking as a mode. Aside from these proposals, pedestrians will also benefit from many of the cycling improvements such as junction improvements or shared used paths.

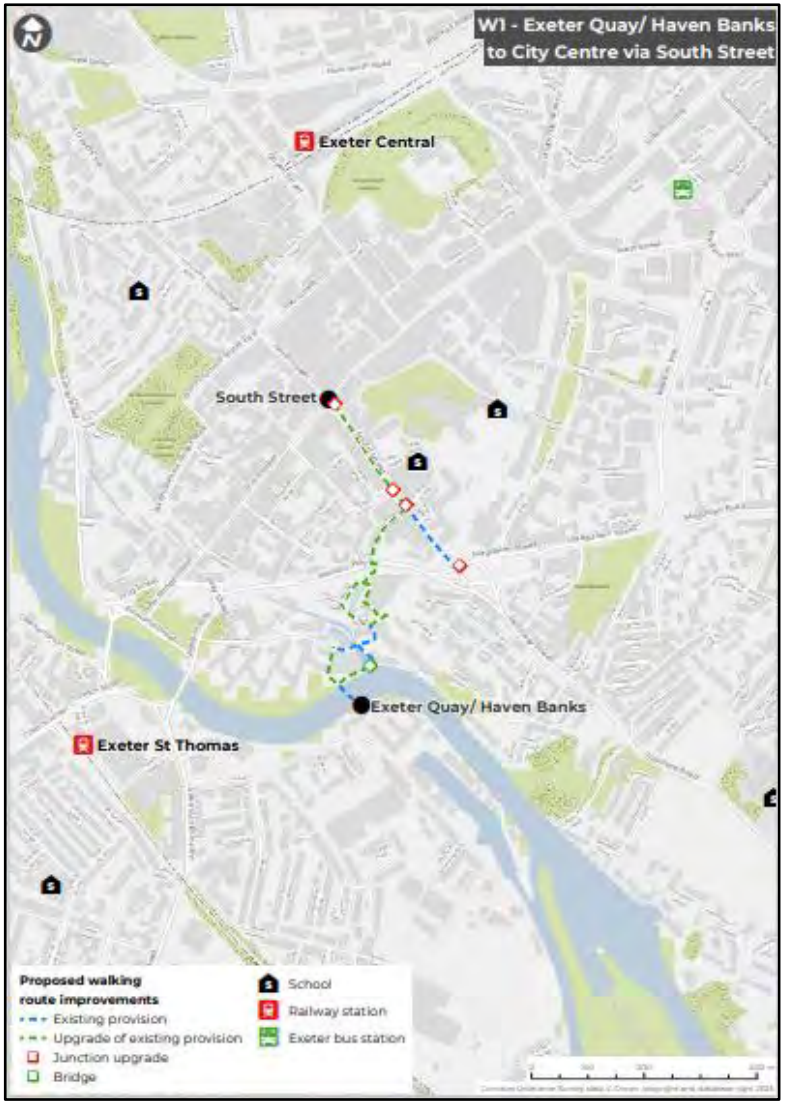
6.1.15. These routes are detailed, with maps, on the next pages.

W1 – Exeter Quay / Haven Banks to city centre via South Street

This route is focused on improving the connection between Exeter's historic Quayside and the city centre. With major new residential development proposed at Water Lane and Exeter Quay's status as one of the city's top visitor destinations, it's important that there is an easy to use, coherent, safe and attractive route for people to walk and wheel.

At the Quay, proposals include upgrading the connection from Cricklepit Bridge to Commercial Road and the replacement of Mallison Bridge. An environmental enhancement is recommended to refresh the connection from Quay Hill to Coombe Street via the subway improving perceptions of safety and making this important gateway more attractive and intuitive. Junction improvements will make it easier to cross South Street and Market Street and there is scope to investigate an enhancement scheme on South Street, reallocating carriageway space and reducing the dominance of vehicles. This will tie into redevelopment proposed in the South Gate area.

These proposals have synergies with cycling improvements proposed as part of routes **E14** and **E20.**

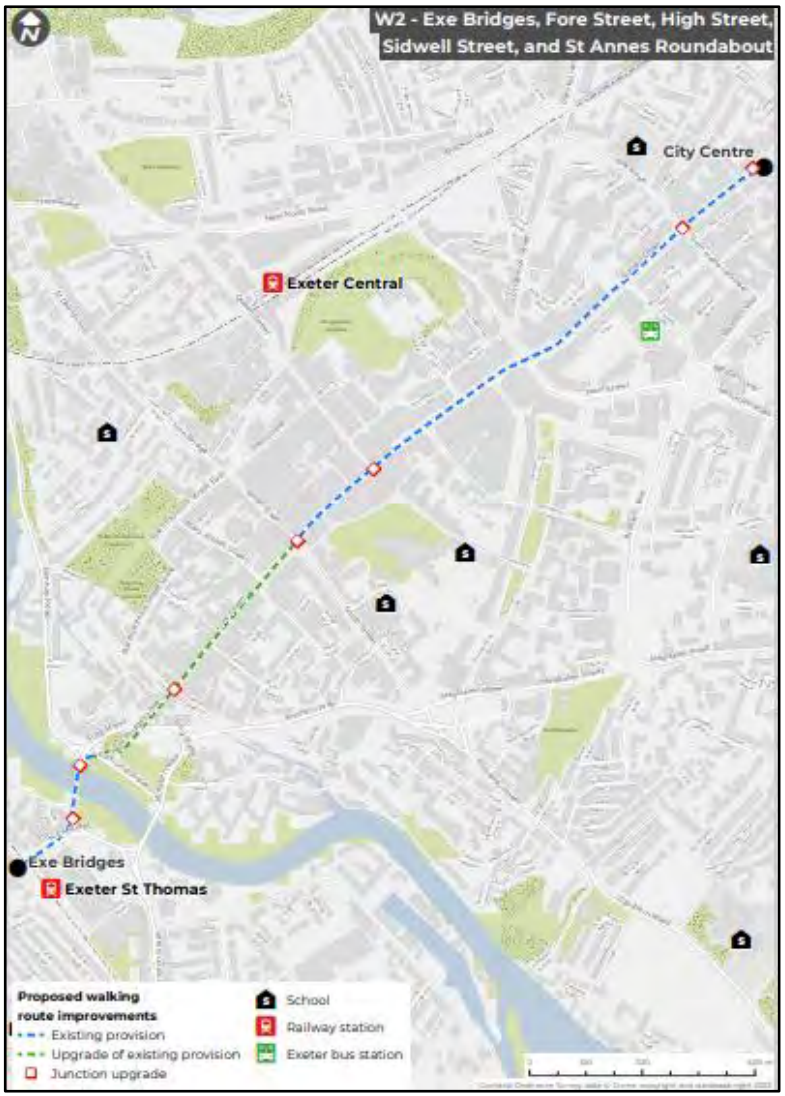


W2 – Exe Bridges, Fore Street, High Street, Sidwell Street and St Annes roundabout

This linear route will improve connections to the city centre from the residential areas of St Thomas and St James as well as making improvements to the retail heart of the city along Fore Street, High Street and Sidwell Street.

At Exe Bridges, pavement level signal crossings allowing people a direct, attractive alternative to the subways are suggested. A major review is also proposed at St Annes roundabout to prioritise and make pedestrian and cycle movements more direct. A number of other junctions have been put forward to review including at Mary Arches Street, North St / South St and at York Road. On Fore St there is scope to improve side road priority for people walking and wheeling and for a wider review of traffic circulation that could allow carriageway space to be reallocated to widen footways.

These proposals have synergies with cycling improvements proposed as part of routes **E5** and **E7.**

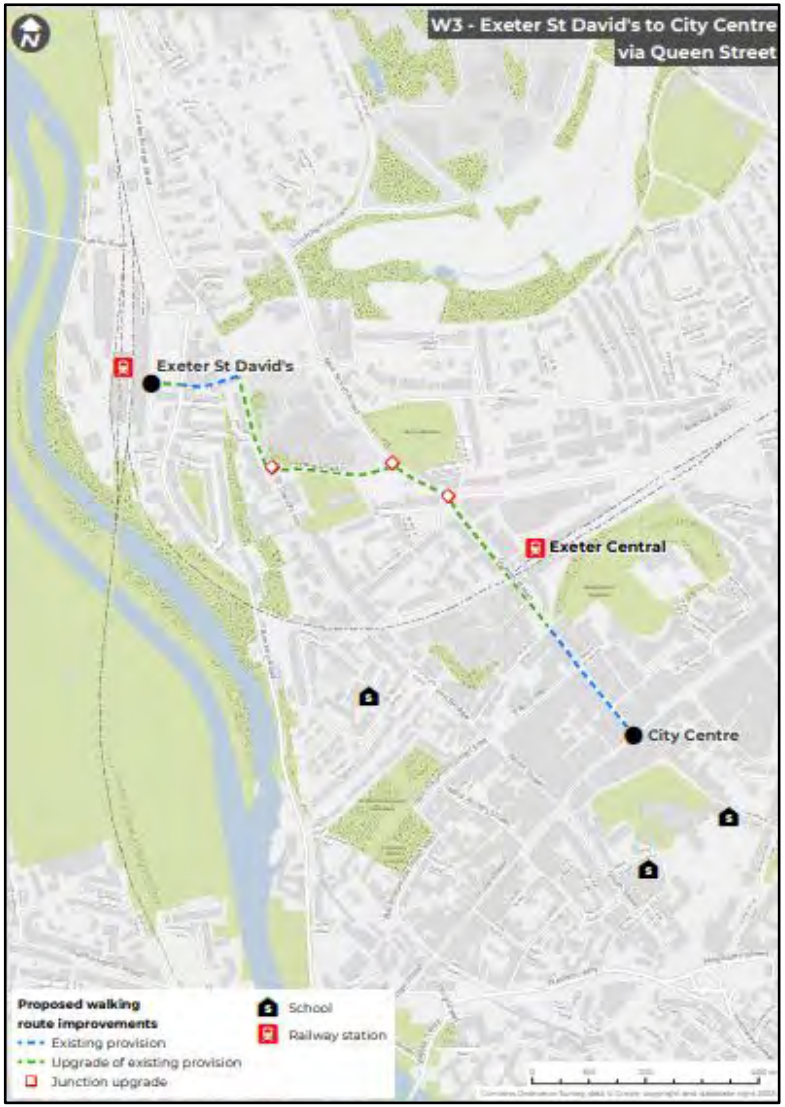


W3 – Exeter St Davids to city centre via Queen Street

Delivering a more attractive and intuitive walking route between Exeter St Davids station and the city centre has been a long-term aspiration in the city. With redevelopment of the Exeter St Davids forecourt incorporated into the Liveable Exeter vision for 'Red Cow Village' there is an opportunity to progress this further. The route also passes the Hele Road and Queen Street campuses of Exeter College which means the area is frequently busy with people walking in the area.

Creating an improved and less car dominated arrival experience at Exeter St Davids station is a core part of this proposal linking with the recently enhanced St Clements Lane. There may be scope to widen footways and provide priority crossings of side roads along St Davids' Hill, Hele Road and Queen Street. A number of junction improvements are proposed to make it easier for people to cross along the route with the main focus on a major enhancement at the Clock Tower roundabout, investigating the scope to reallocate carriageway space and undertake a placemaking scheme in the area. Traffic circulation proposals could also be investigated relating to removal of through traffic on Queen Street that would improve the environment for people walking and cycling.

These proposals have synergies with cycling improvements proposed as part of routes **E21** and **E20.**

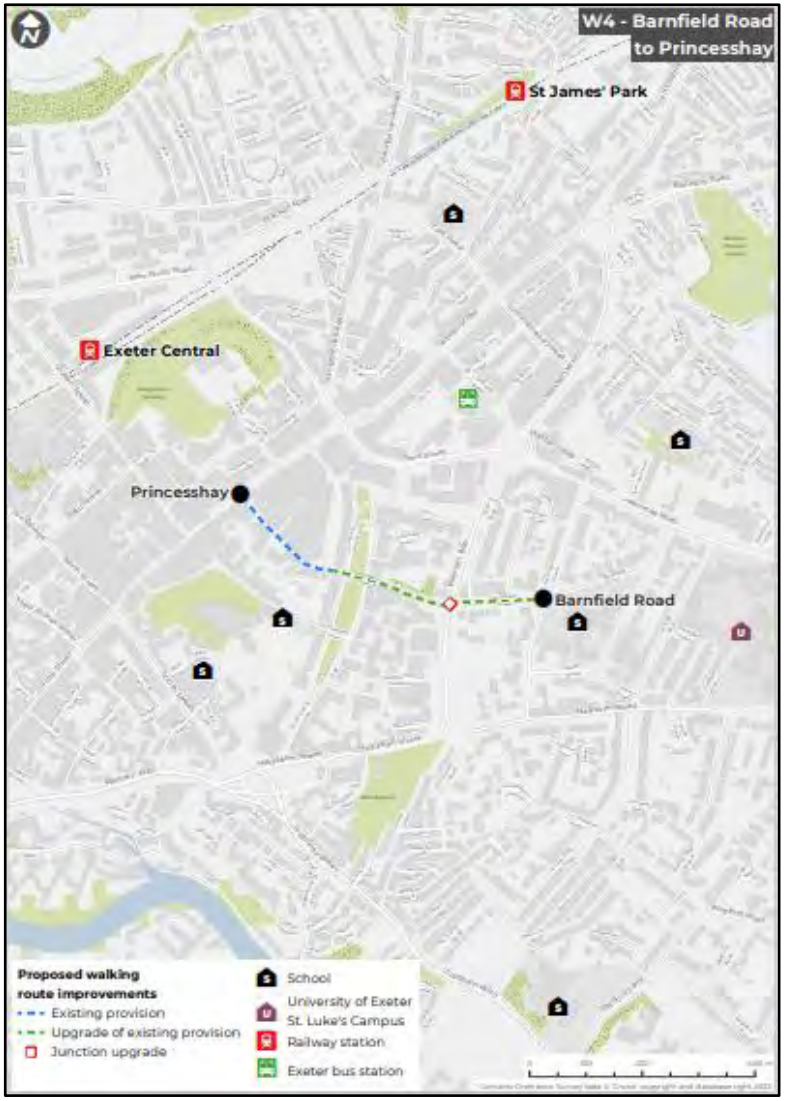


W4 – Barnfield Road to Princesshay

Barnfield Road is an important gateway route into the city centre for residents funnelling in from St Leonards, Newtown and Heavitree. With enhancement schemes underway on Magdalen Road and proposals coming forward in Newtown, this route is likely to get busier with people walking and cycling.

A review of the signalised junction of Barnfield Road and Western Way to make this more intuitive to cross for people walking and cycling is an important focus on this scheme. There may also be scope to reallocate road space to widen footways from Western Way up to Princesshay, incorporating side road priority crossings. A review of traffic circulation around Southernhay may also allow additional space to be reclaimed between Southernhay East and Southernhay West. This will all improve the walking, wheeling and cycling arrival experience into the city centre.

These proposals have synergies with cycling improvements proposed as part of routes **E3** and **E9**.

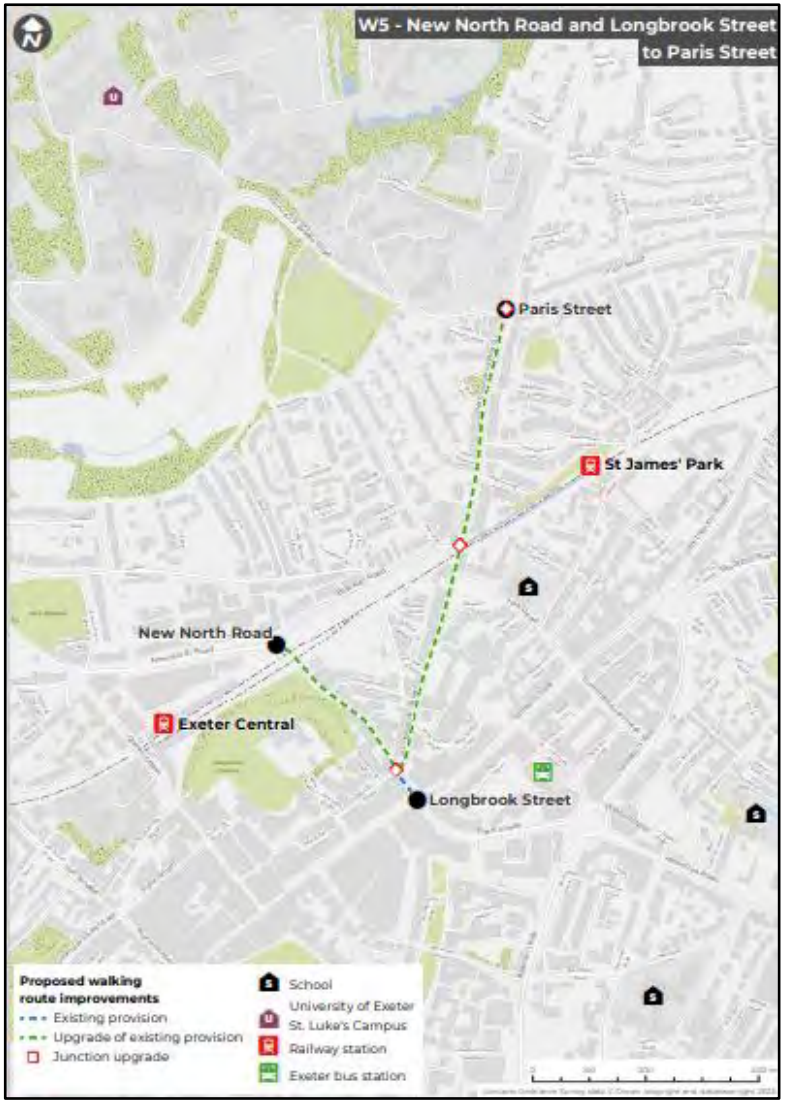


W5 – New North Road and Longbrook Street to Paris Street

This route will improve the connectivity between the busy residential areas of St James and Duryard with the city centre as well as improve linkages for people walking back and forth to the University of Exeter Streatham campus.

Recommended works will focus on investigating the possibility of changes to improve pedestrian priority at the junctions of New North Road with Longbrook, Blackall Road with Longbrook Street and Pennsylvania Road with Union Road. Along the length of New North Road, Longbrook Street and Pennsylvania Road opportunities will be sought to widen footways and deliver junction narrowings with side road priority making it easier for people to walk or wheel for their everyday journeys.

These proposals have synergies with cycling improvements proposed as part of routes **E4**.



6.2 WALKING INFRASTRUCTURE

6.2.1. The potential for improvements on the identified routes has been reviewed in line with the latest government guidance on the design of pedestrian facilities. Some examples of the type of infrastructure considered as part of this process are outlined below.

Crossings

Where traffic volumes and speeds are high, pedestrian crossing facilities to improve connections and safety for vulnerable road users would be proposed. Due consideration would be made regarding where the key trip attractors and locations/ desire lines where people would expect to cross the road. In some cases, upgrades to existing crossings would be proposed to make them more attractive and safer for pedestrians.

Signals

6.2.2. Where traffic volumes and speeds are highest, new, or upgraded signalised crossings at junctions and at regular intervals along a route would be proposed. These will seek to minimise wait times and crossing distances for pedestrians where possible.

Priority crossings

6.2.3. Where traffic flows and speeds are lower, priority crossings such as zebra or parallel crossings where possible to provide priority to vulnerable road users would be proposed.

Side roads

6.2.4. As with the cycling infrastructure plans, the introduction of continuous footways at some locations on our routes would be proposed. This is where the footway would continue uninterrupted across the junction. This gives priority to those on foot and is designed to make walking easier and safer. The image below shows an example of this in a location with a cycle track.

Wayfinding

It is proposed that wayfinding within the core walking zones and along walking routes is improved to assist in navigation and to highlight route/journeys possible by walking. This could also be applied to cycling routes. Street signs are placed in carefully selected locations to provide awareness and connectivity.

7 Liveable Neighbourhoods

INTRODUCTION

7.1.1. Towns and cities across the UK are creating 'Liveable Neighbourhoods' (LN) or 'Low-Traffic Neighbourhoods' (LTN). Liveable Neighbourhoods are areas in which motorised through-traffic is eliminated or restricted.

7.1.2. This is typically achieved by installing physical measures which retain motor vehicle access to properties (including access for delivery vehicles and emergency services) within an area but prevent or strongly discourage motor traffic from driving through areas on their way to somewhere else.

7.1.3. LNs aim to deliver safer, quieter, less polluted, and more pleasant streets whilst providing the opportunity to create space for social activity, play and greening.

7.1.4. Local consent and the approval of HATOC (Highway and Traffic Order Committee) and Cabinet members (where appropriate) will be necessary for such schemes including considerations to forthcoming guidance from Government as well as any relevant issues such as wider strategic alignment of the scheme with local policy including the County Council's carbon reduction and public health objectives.

7.1.5. Elements used to support the implementation of LN's include:

- Filtering achieved by bollards, gates, or planters
- School Streets
- Controlled Parking Zones
- Bus Gates
- Road closures and banned turns
- Parklets and cargo bike storage,
- Continuous footways, cycle tracks and crossings.

7.1.6. Although a Liveable Neighbourhood is a relatively new term, physical measures such as cul-de-sacs and 'modal filters' have been used widely in the UK historically.

Principles of a Liveable Neighbourhood

7.1.7. London Cycling Campaign and Living Streets developed a guide to low traffic neighbourhoods, suggest the following key principles for a successful Liveable Neighbourhood.

Principle 1: Size

- LNs should be implemented over a wide enough area which enables an overall reduction in motor traffic and disincentivises short car trips in favour of active travel.
- LNs should include a group of residential streets, bordered by a main road. Ideally these streets should be walkable within 15 minutes (approximately 1km^2). The main roads bordering the area should be suitable for through traffic, buses, and HGVs.
- An area that is too small could push through traffic onto other unsuitable roads within a neighbourhood.
- Where neighbouring LN 'cells' are separated by main through roads, it is vital to provide high-quality pedestrian and cycling crossings to connect them.

Principle 2: Location

- Successful LNs are often near key amenities and services, and where possible these should serve as the focus of the area. The identification of these elements within an area is crucial to understand travel patterns within a neighbourhood.
- Key amenities and services include locations such as: schools, doctors/hospitals, high streets, employment, sporting facilities, railway stations, supermarkets, places of worship, and community centres.

Principle 3: Infrastructure and interventions

- The types of traffic management controls typically used in LNs do not stop residents from being able to access their homes, nor delivery and service vehicles accessing dwellings and businesses when required. It is however likely to mean a slightly more indirect route if travelling by cars.

Interventions can be implemented on a trial or permanent basis.

Principle 4: Community engagement

- The local community should be actively engaged from the start of the process, including identifying issues and opportunities, through to co-designing elements and active feedback and monitoring.
- Engagement with “harder to reach” groups within a community is particularly important as they are often underrepresented. Groups may include young people, older people, families with young children, unemployed, disabled people, and people for who English is not their first language.
- Engagement can also be led by the community, as was undertaken in St Leonards. The St Leonards Neighbourhood Association have set up a webpage with a “traffic puzzle”, asking residents to identify modal filters and one-way streets they’d like to see on a simple map of the area.

CASE STUDY: LAMBETH’S Liveable NEIGHBOURHOODs

Plans for some LNs were in place before the coronavirus pandemic under the banner of Brixton’s “Liveable Neighbourhood”. In early 2020, a Commonplace site was launched, and consultation events were held to gather views on this.

In May 2020, Lambeth Council published plans for five emergency coronavirus-response LTNs – some in the areas from the Brixton Liveable Neighbourhood consultation but also further afield in Oval Triangle and Streatham Hill. Commonplace sites launched for each LTN as they are implemented, accompanied by a thorough monitoring strategy

- Lambeth Council continues engaging with residents across a variety of media and sends out regularly letters to residents with important information about the scheme, informing them of any changes and the results of monitoring.
- The monitoring found that for the Railton Low Traffic Neighbourhood:
- Motor vehicle traffic fell by 63 per cent inside the LTN and by 18 per cent when including boundary roads. It fell by 67 per cent on Shakespeare Road and by around 3,000 cars per day on Railton Road.
- Traffic on boundary roads generally reduced, a reduction that has been sustained throughout 2021, after the recovery from the pandemic.
- Cycling rates were high before the LTN and have stayed that way. But on Railton Road they have nearly doubled, increasing by 92 per cent.
- Cycling has slightly increased on routes such as Milkwood Road, Dulwich Road and Brixton Water Lane.

7.1.8. LNs are a simple and cost-effective way to reduce through-traffic while maintaining vehicle access to homes and businesses. They try to enable and prioritise walking, cycling, wheeling and public realm improvements and can unlock streets in different ways of using of these public spaces. For the last fifty years or so, 'modal filters' have been a fundamental tool to reduce the amount of public space given over to the movement of cars and vans and increase space available for more traditional uses of our streets: for community interaction, for children to play out, for neighbourly conversation, placemaking, public health and enjoyment.

7.1.9. Key benefits of implementing LNs in Exeter could include reduced road danger, increased social inclusion, greater public access to our streets and public spaces, increased levels of active travel, increased support for local businesses.

7.1.10. Any Liveable Neighbourhood or Low Traffic Neighbourhood schemes in Exeter would only be designed or implemented based on local consent and the approval of HATOC (Highway and Traffic Order Committee) and Cabinet members (where appropriate), including consideration to forthcoming guidance from Government as well as any relevant issues such as wider strategic alignment of the scheme with local policy including the County Council's carbon reduction and public health objectives.

7.1.11. Introducing LNs in Exeter could therefore help to increase the levels of active travel, improve physical health & wellbeing, and provide greater opportunities for social interactions. For example, a strategic east-west cycle route across Exeter (E9) was delivered in 2020 as part of the Emergency Active Travel response to the Covid-19 pandemic. This was achieved by introducing three new modal filters at key locations to reduce through traffic in the city. Supported by partners, including the city's biggest single trip generator, the RD&E Hospital, the measures have created a safe and attractive route connecting residential areas with employment, open spaces, and the city centre.

8 WHAT NEXT?

8.1.1. The final stage of the LCWIP process considers how the LCWIP should be integrated into local policy, strategies and plans, as well as practical applications of the outputs of the LCWIP.

8.1.2. Devon County Council are currently reviewing the Local Plan and other major local policy documents and as such this represents an excellent opportunity to fully integrate the outputs from the LCWIP into local policy. This will help ensure that emphasis is given to cycling and walking within both local planning and transport policies, strategies, and delivery plans. Reflecting the LCWIP in local policy will also help make the case for central government funding.

8.1.3. The LCWIP sets out the case for future funding for cycling and walking infrastructure. As set out in the section above there are a number of compelling reasons for central government to invest in active travel infrastructure in Exeter. In addition, local funding contributions are likely to be available from developer S106 and/or Community Infrastructure Levy (CIL) contributions, other bids, and potentially contributions from limited local authority budgets.

8.1.4. Due to the nature of local authority funding, the majority of funding is likely to come from bids to central government. The future funding streams are therefore unclear, and it would be inappropriate to commit to exact delivery timescales. There will be a need to be flexible, adapting to changing circumstances and opportunities. There may also be opportunities to incorporate cycling and walking improvements as part of other transport schemes.

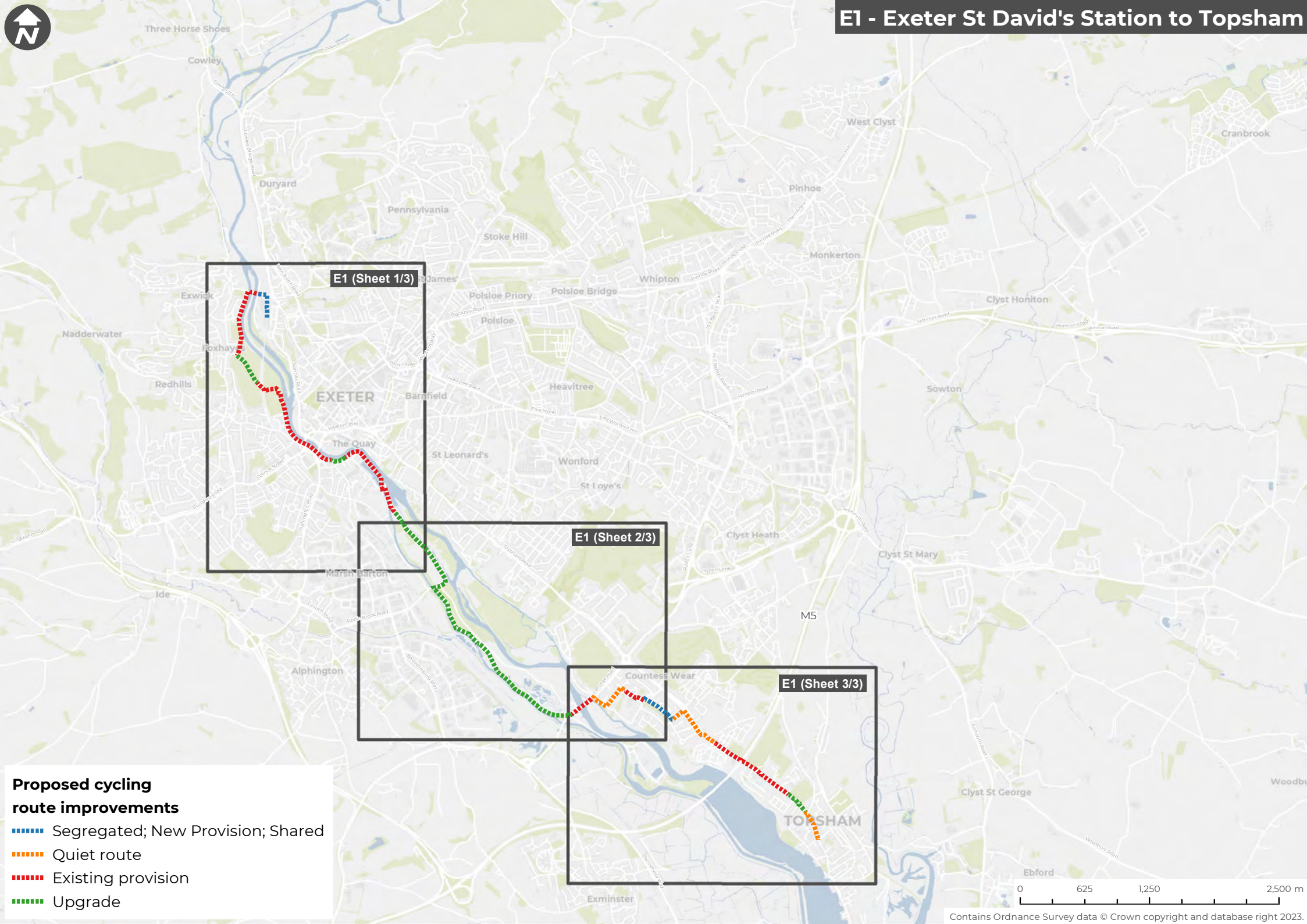
8.1.5. Active Travel England will assess local authorities' performance on active travel, with findings influencing local authority funding for all transport modes.

8.1.6. It is envisaged that delivery of the LCWIP will need to be continuously monitored and reviewed and updates approximately every four to five years to reflect progress made with implementation.

9 APPENDICES

Appendix 1 – All cycling route overview maps, and all route break-downs.

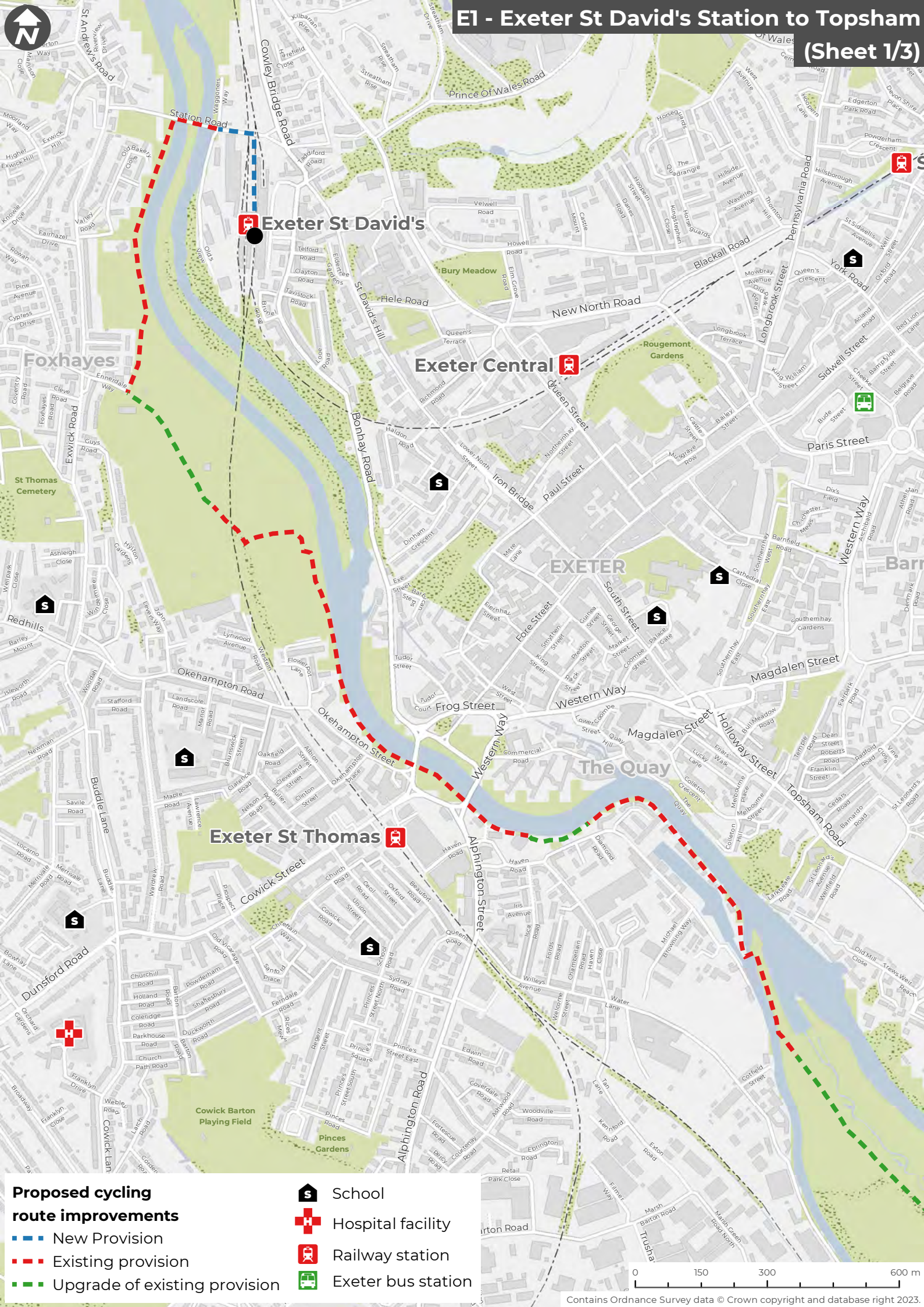
E1 - Exeter St David's Station to Topsham

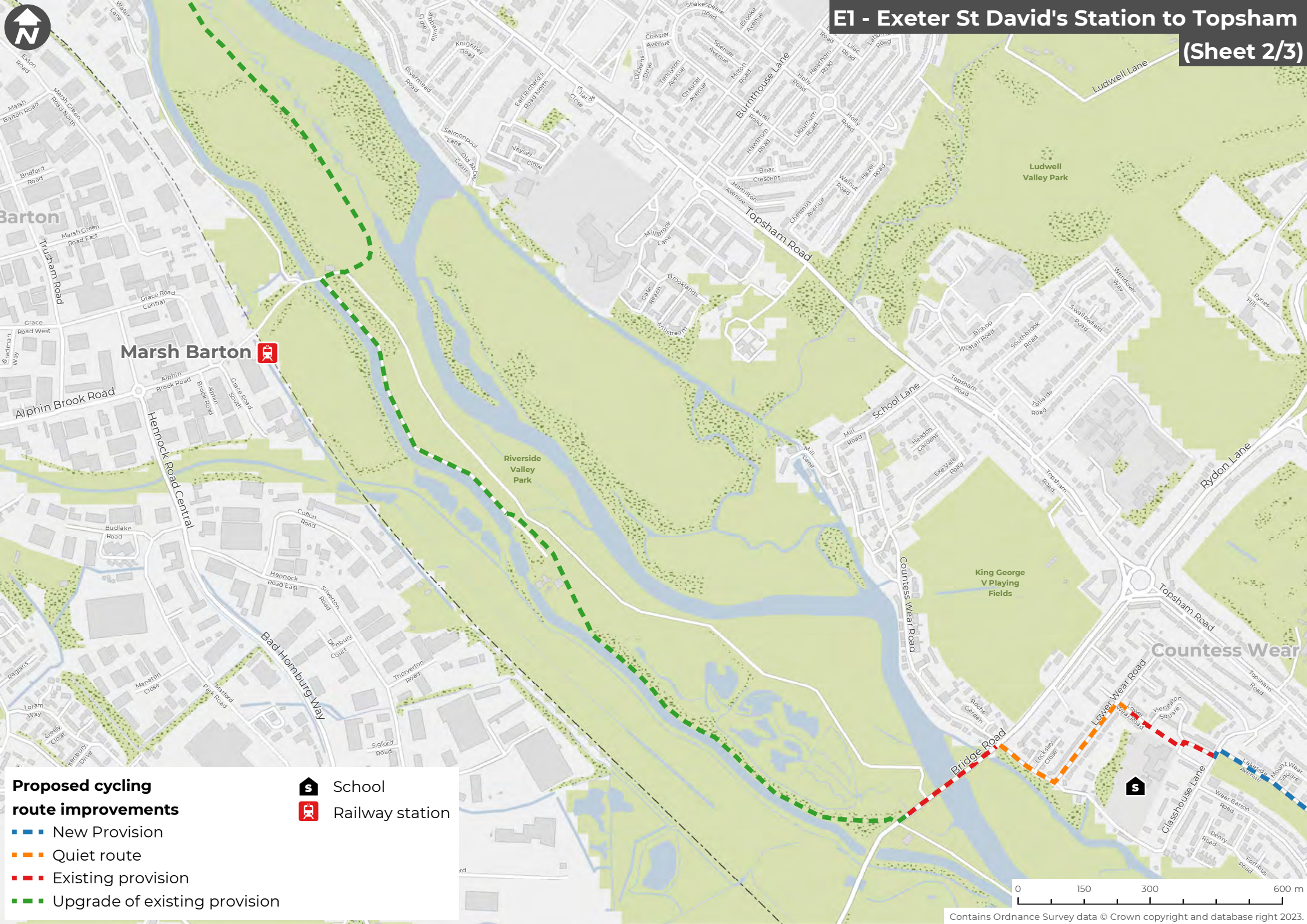


Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision
- Upgrade

E1 - Exeter St David's Station to Topsham (Sheet 1/3)




E1 - Exeter St David's Station to Topsham
(Sheet 2/3)
Marsh Barton
Alphin Brook Road
Hennock Road Central
Bad Homburg Way
Topsham Road
Ludwell Lane
Ludwell Valley Park
Riverside Valley Park
King George V Playing Fields
School Lane
Countess Wear Road
Bridge Road
Lower Wear Road
Countess Wear
Ryton Lane
Classhouse Lane
Burnthouse Lane
Proposed cycling route improvements
New Provision
Quiet route
Existing provision
Upgrade of existing provision
School
Railway station
0
150
300
600 m
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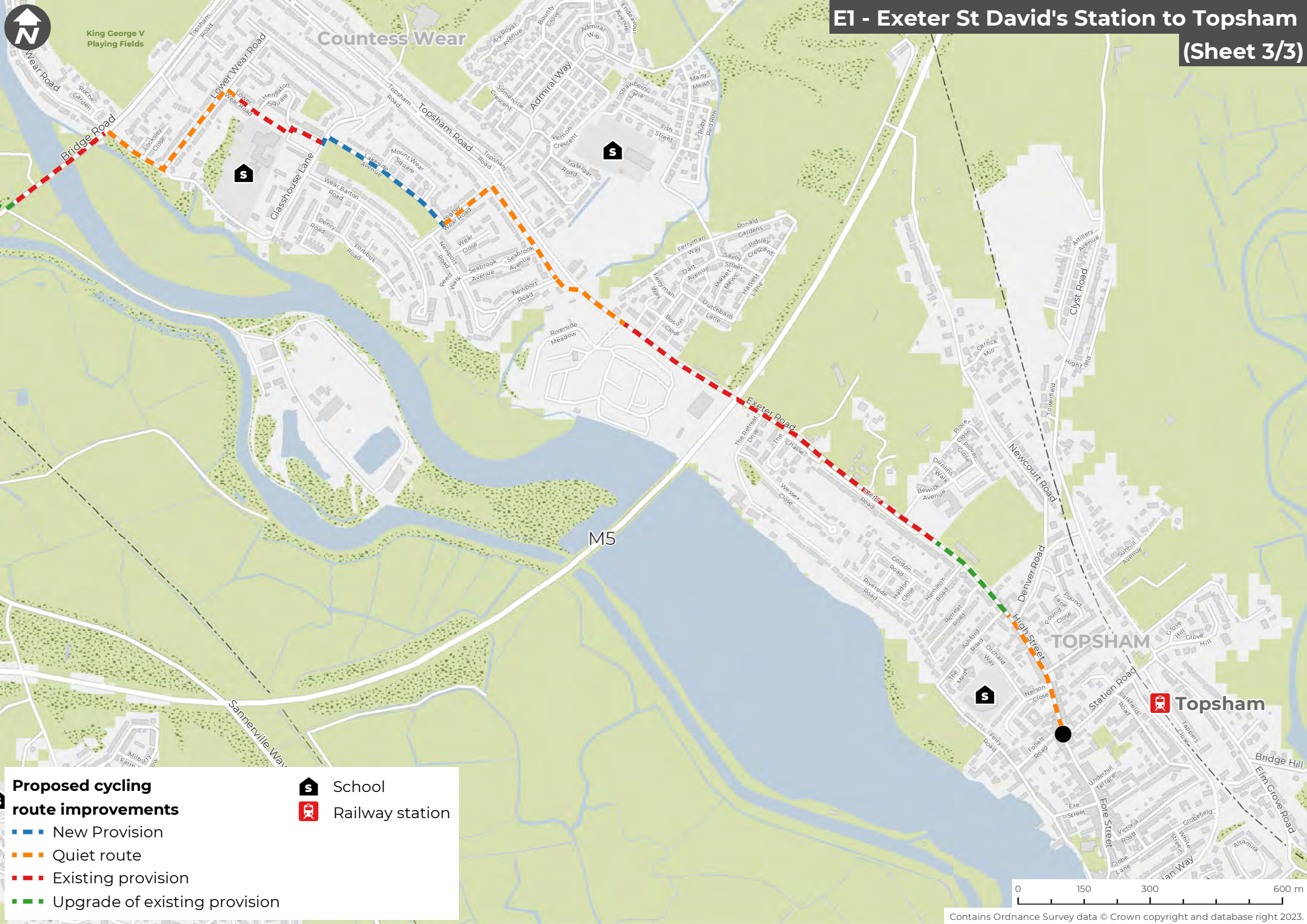
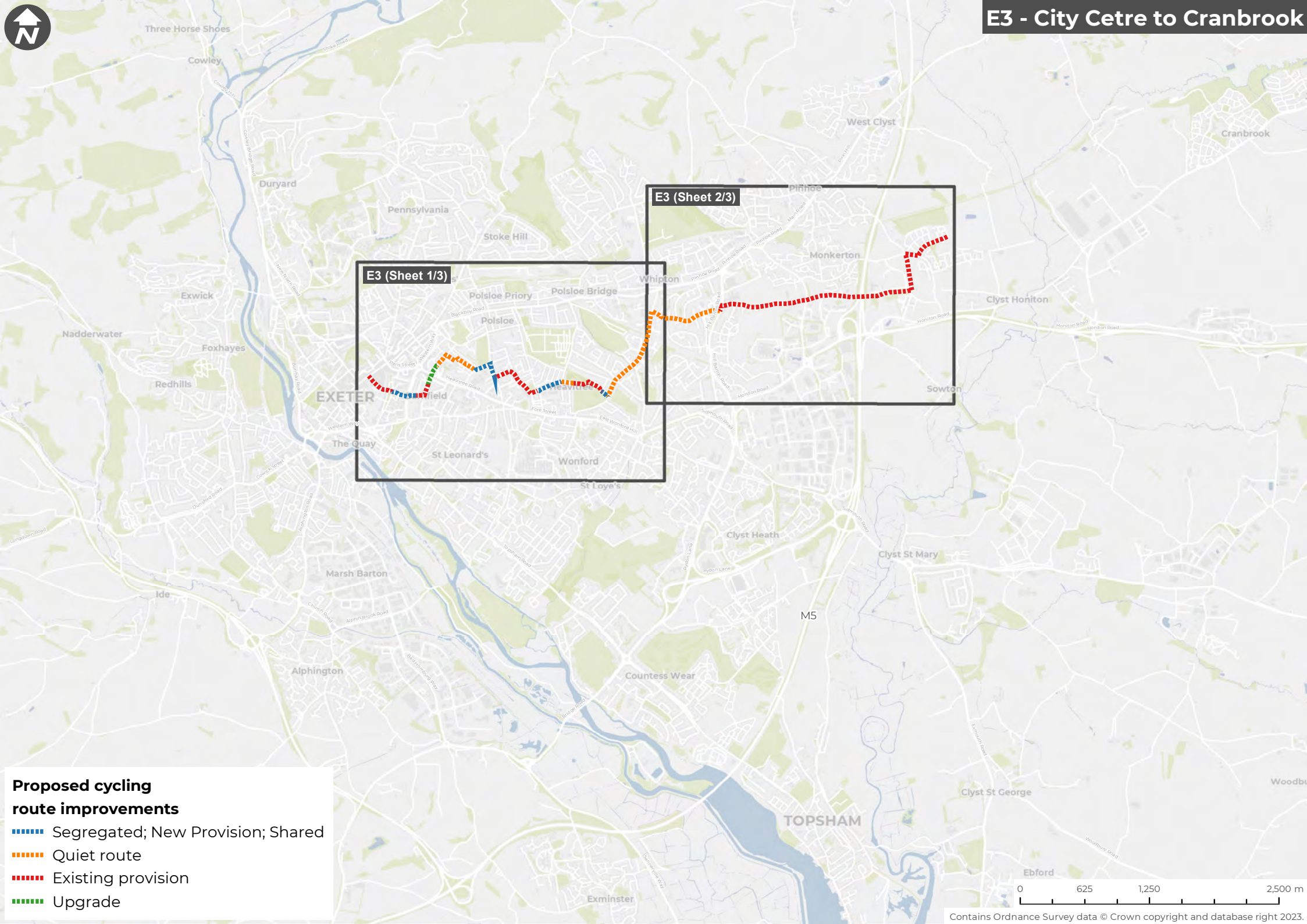
E1 - Exeter St David's Station to Topsham (Sheet 3/3)

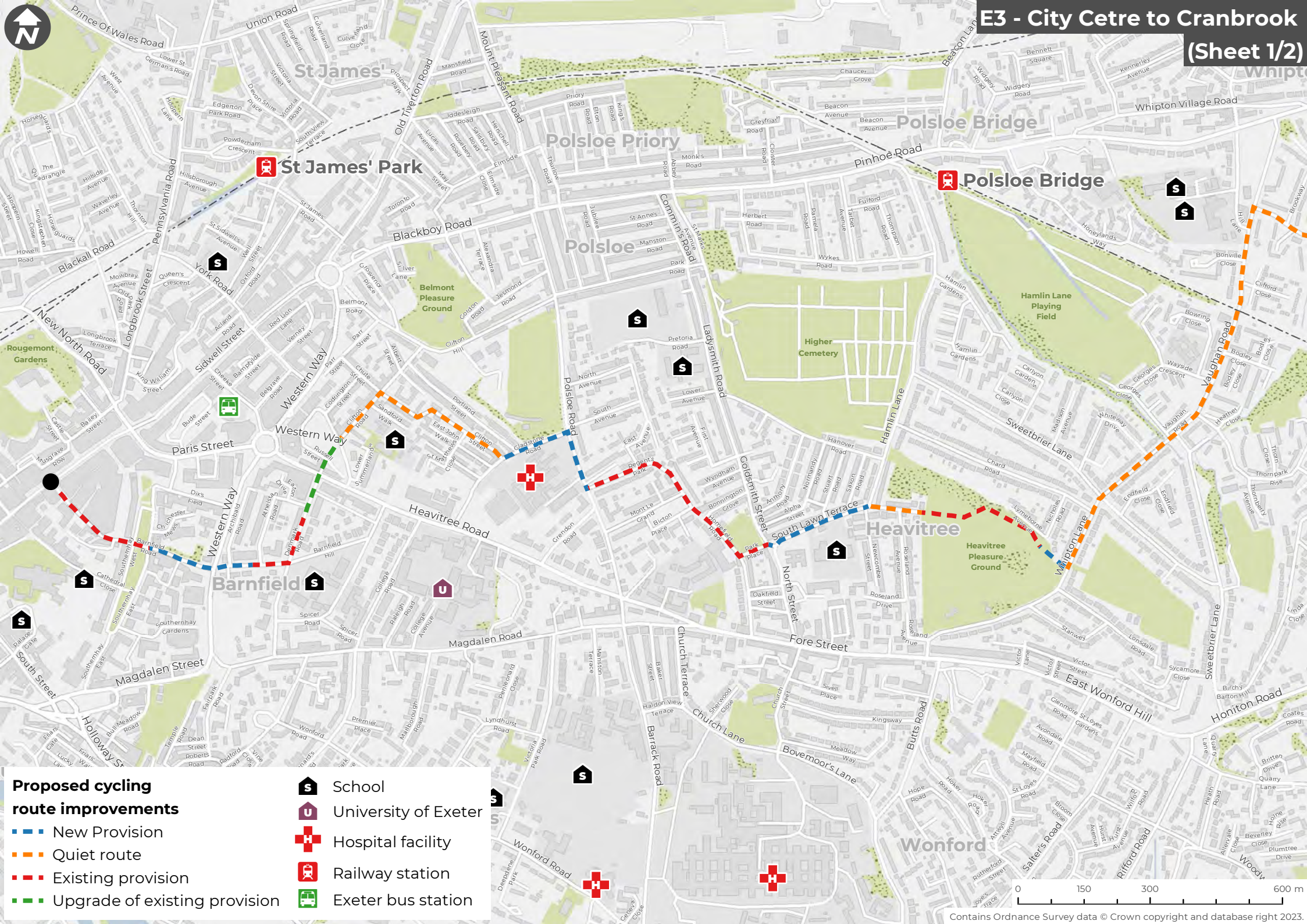


E3 - City Cetre to Cranbrook

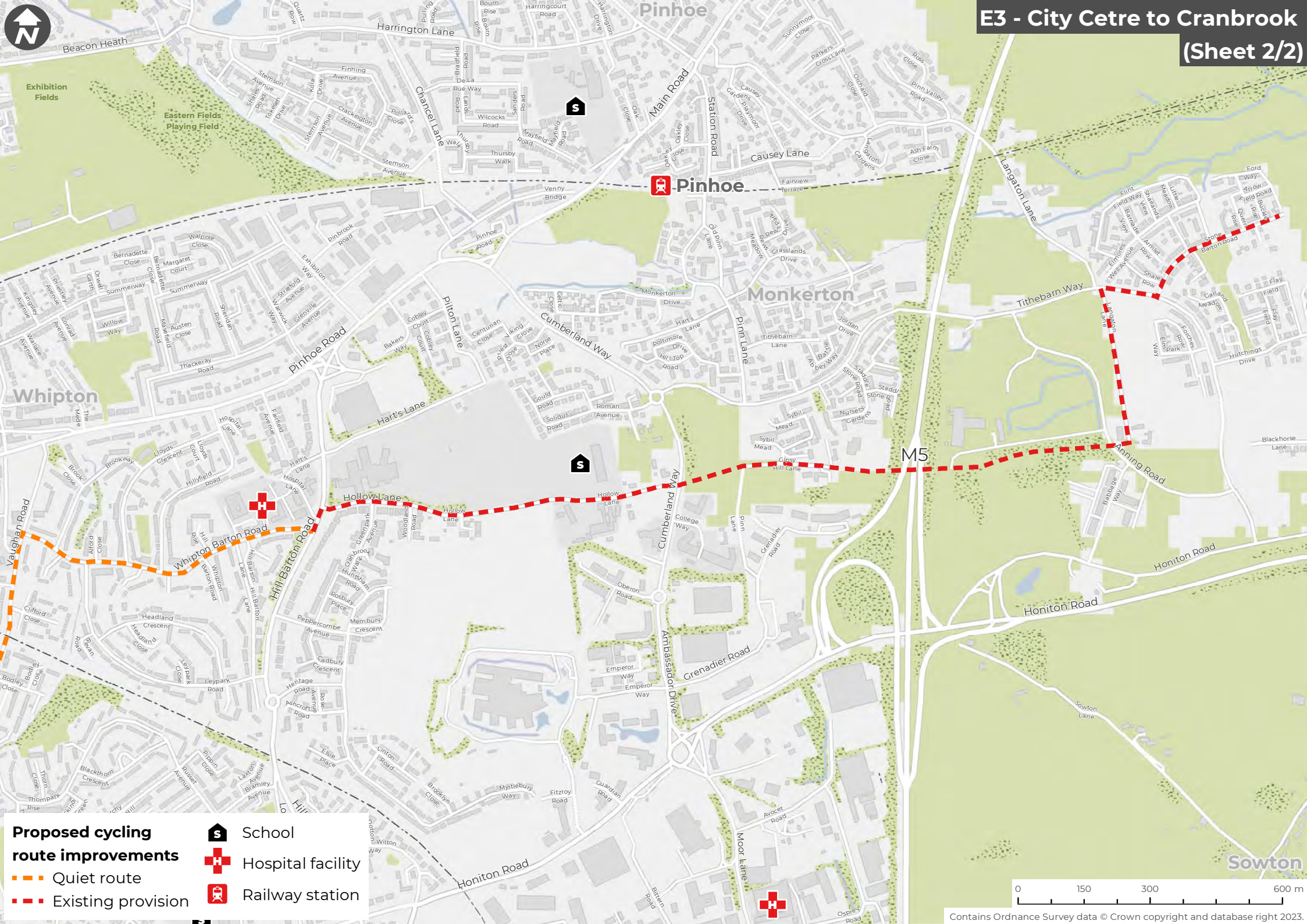


Proposed cycling route improvements

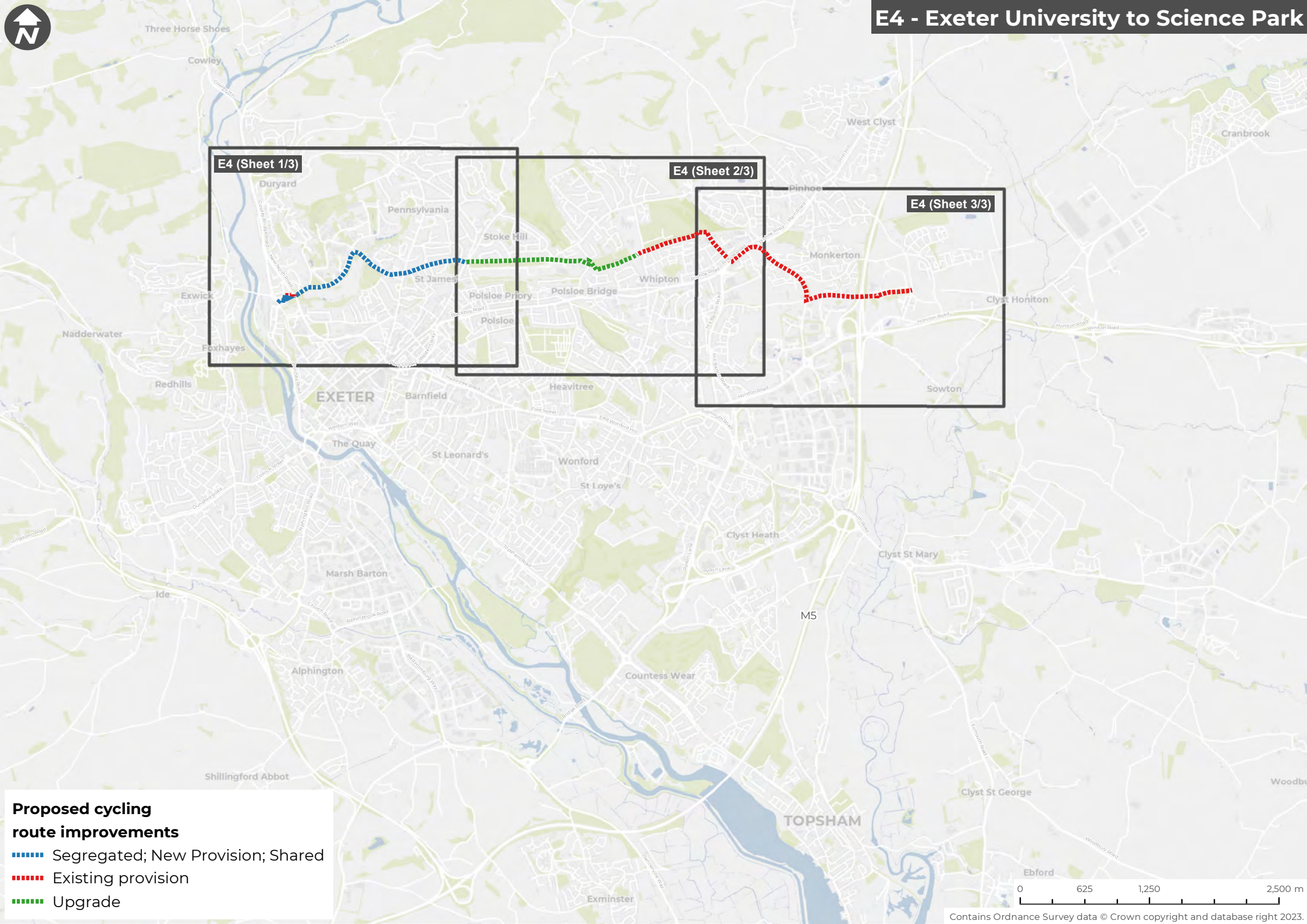
- Segregated; New Provision; Shared
- Quiet route
- Existing provision
- Upgrade


E3 - City Cetre to Cranbrook
(Sheet 1/2)
St James' Park
Polsloe Bridge
Polsloe Priory
Polsloe
Belmont Pleasure Ground
Higher Cemetery
Hamlin Lane Playing Field
Heavitree
Heavitree Pleasure Ground
Barnfield
Wonford
Rougemont Gardens
Proposed cycling route improvements
New Provision
Quiet route
Existing provision
Upgrade of existing provision
School
University of Exeter
Hospital facility
Railway station
Exeter bus station
0
150
300
600 m
Contains Ordnance Survey data © Crown copyright and database right 2023.

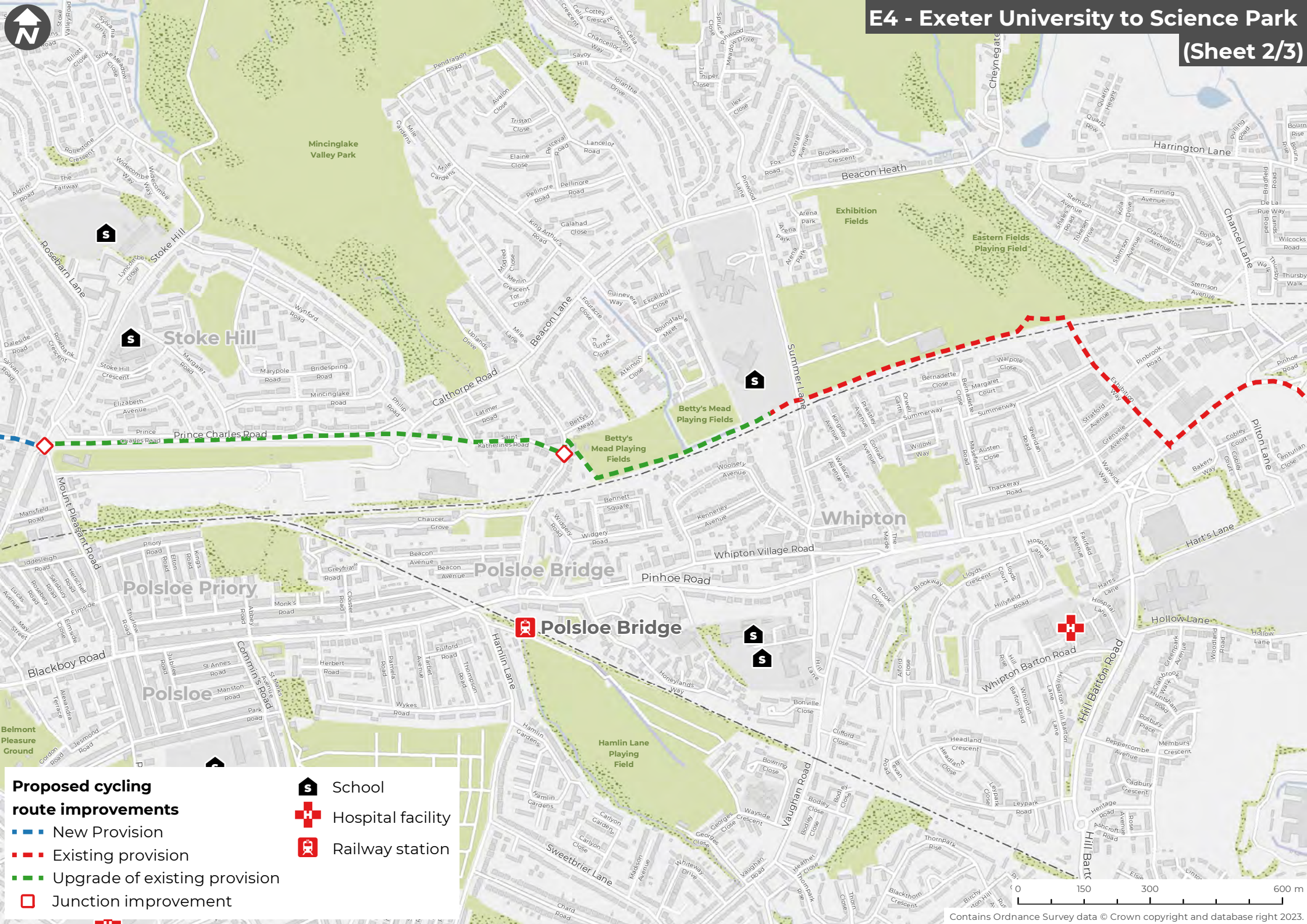
E3 - City Cetre to Cranbrook (Sheet 2/2)



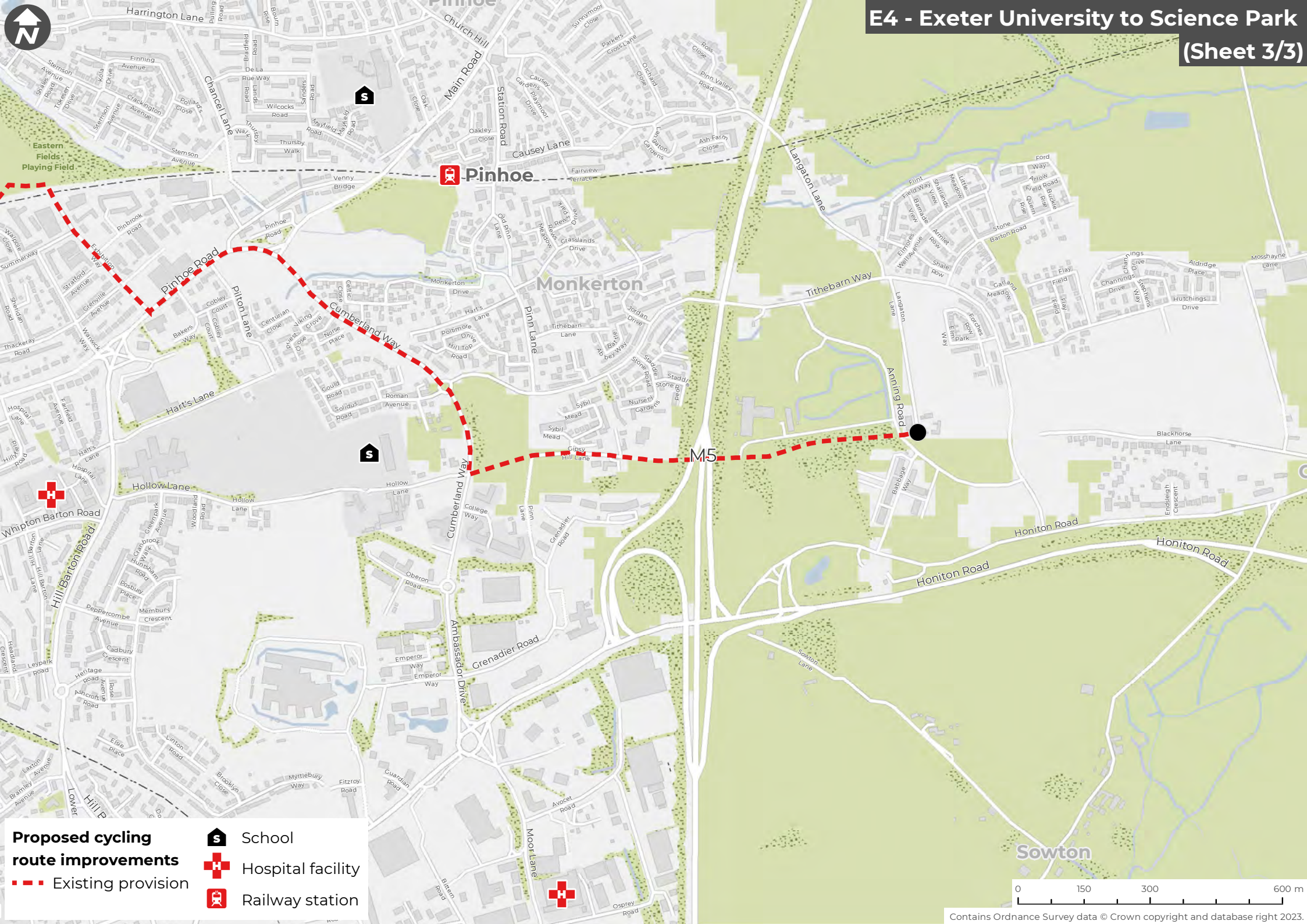
E4 - Exeter University to Science Park



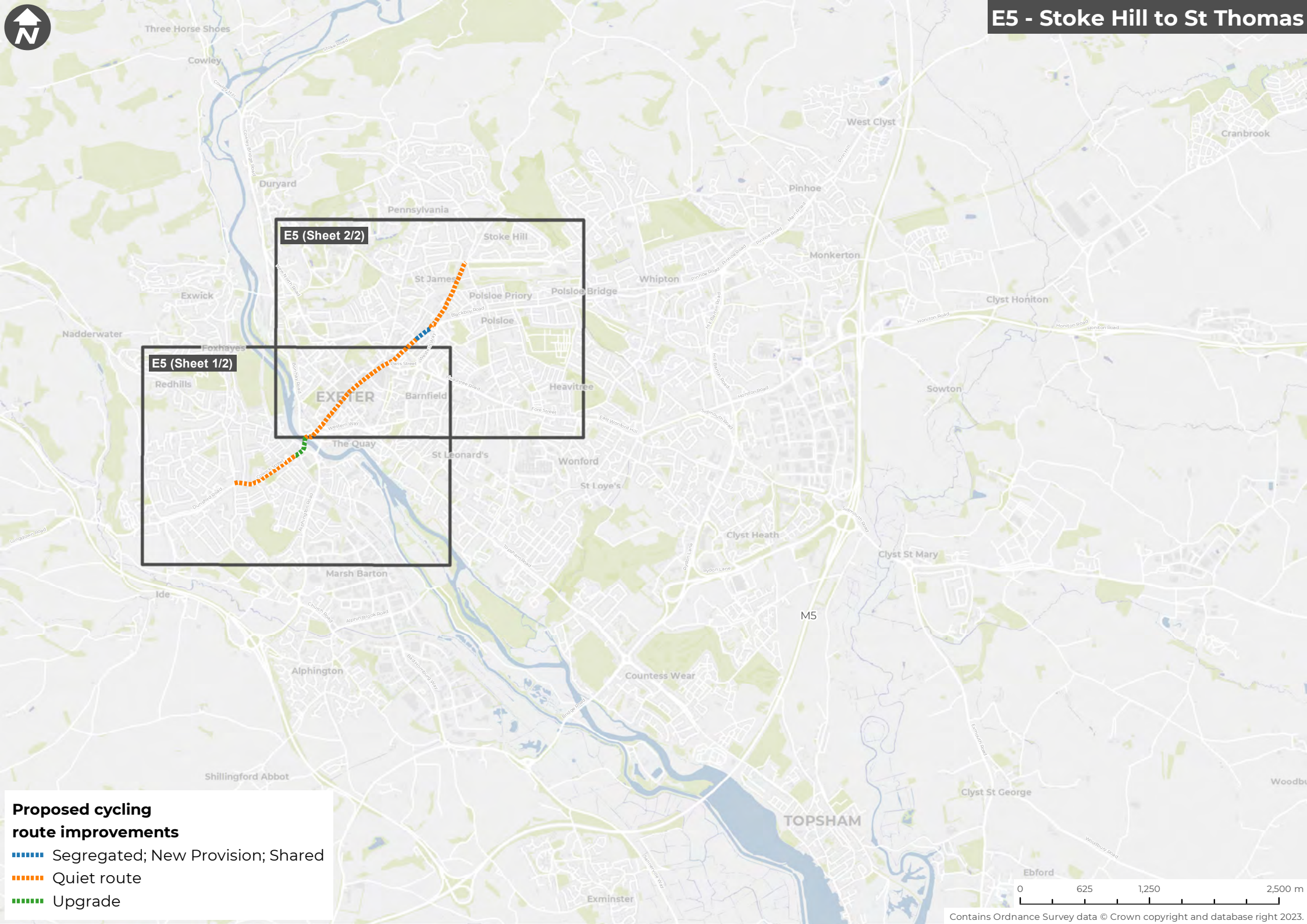
E4 - Exeter University to Science Park (Sheet 1/3)

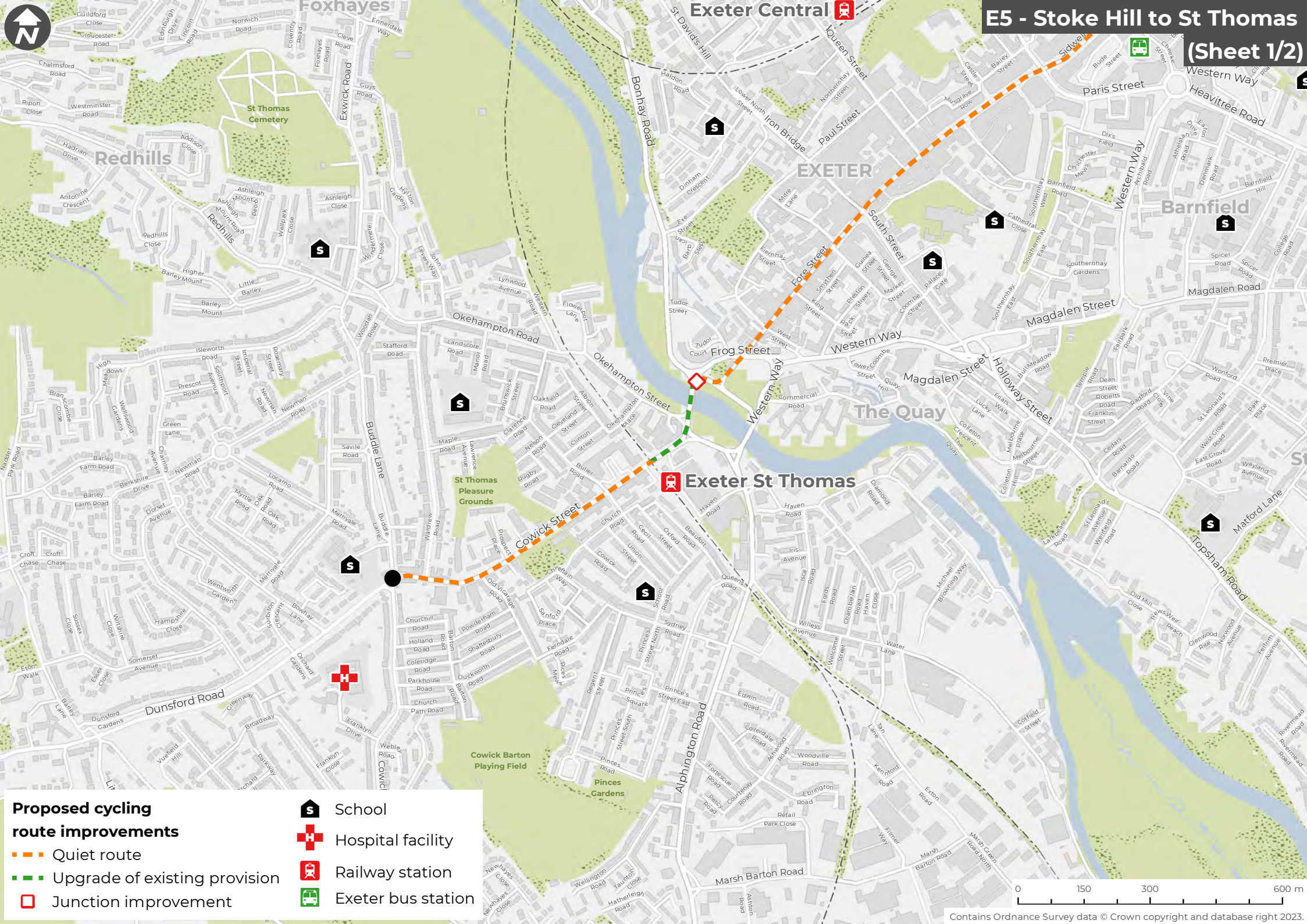

E4 - Exeter University to Science Park
(Sheet 2/3)
Proposed cycling route improvements
New Provision
Existing provision
Upgrade of existing provision
Junction improvement
School
Hospital facility
Railway station
Mincinglake Valley Park
Stoke Hill
Polsloe Priory
Polsloe
Polsloe Bridge
Whipton
Exhibition Fields
Eastern Fields Playing Field
Betty's Mead Playing Fields
Hamlin Lane Playing Field
Belmont Pleasure Ground
Beacon Heath
Harrington Lane
Whipton Village Road
Pinhoe Road
Prince Charles Road
Calthorpe Road
Beacon Lane
Summer Lane
Chancel Lane
Pilton Lane
Hart's Lane
Hollow Lane
Whipton Barton Road
Hill Barton Road
Mount Pleasant Road
Blackboy Road
Commins Road
Hamlin Lane
Vaughan Road
Sweetbrier Lane
Rosebarn Lane
Stoke Hill
0
150
300
600 m
Contains Ordnance Survey data © Crown copyright and database right 2023.

E4 - Exeter University to Science Park (Sheet 3/3)

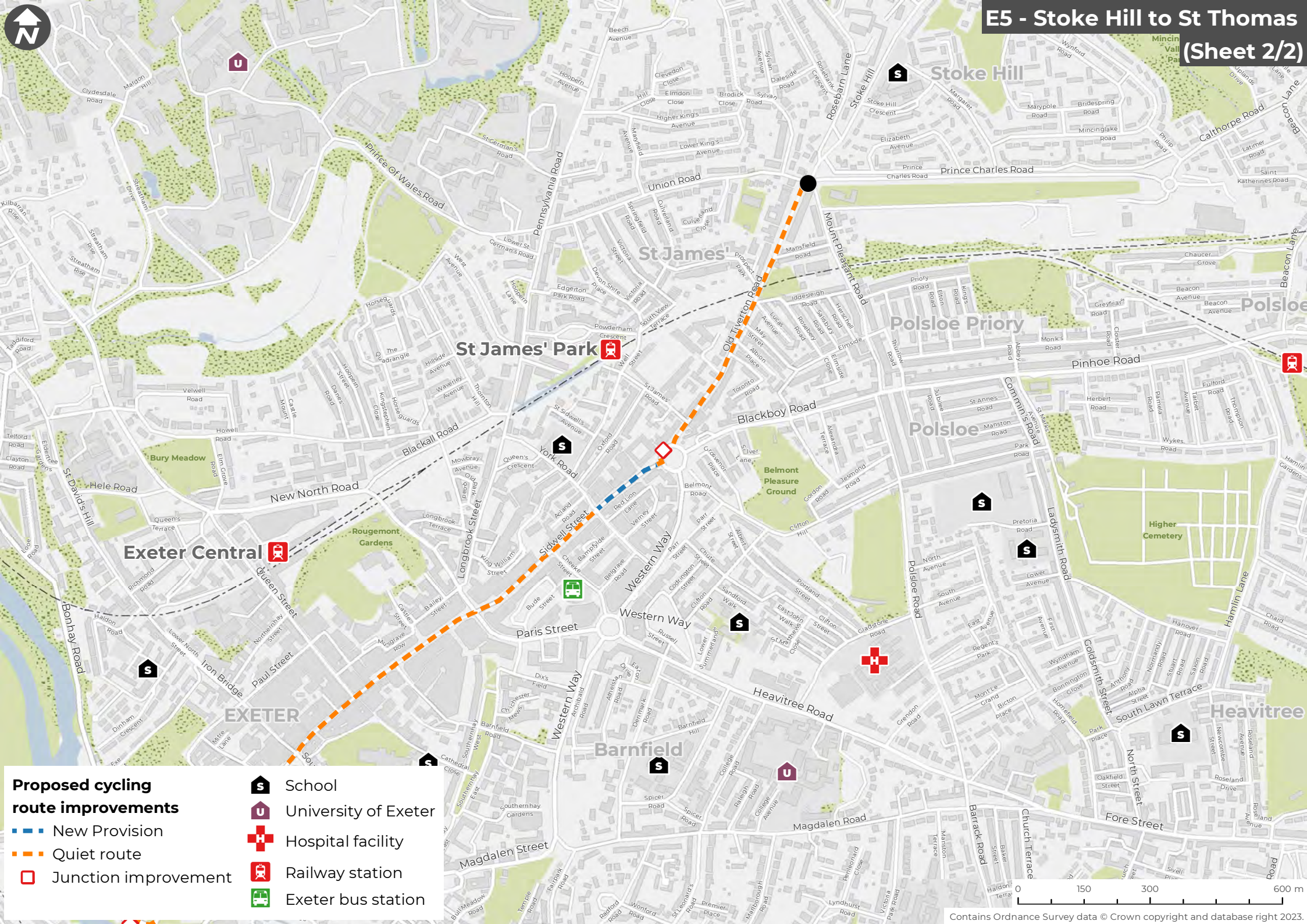


E5 - Stoke Hill to St Thomas

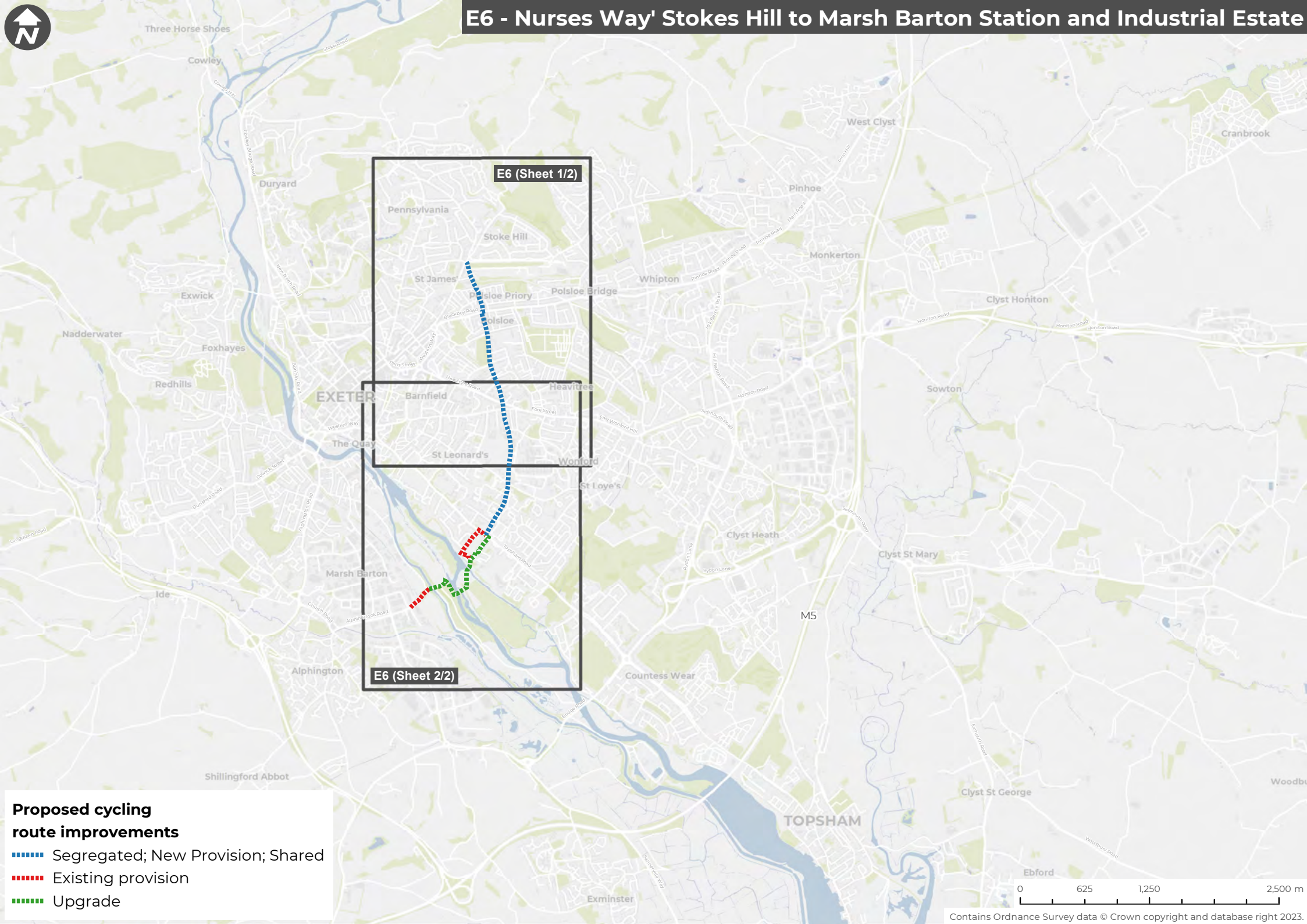



E5 - Stoke Hill to St Thomas
(Sheet 1/2)
Exeter Central
Exeter St Thomas
Foxhayes
Redhills
St Thomas Cemetery
EXETER
The Quay
Barnfield
St Thomas Pleasure Grounds
Cowick Barton Playing Field
Pinces Gardens
Okehampton Road
Okehampton Street
Frog Street
Cowick Street
Western Way
Magdalen Road
Magdalen Street
Holloway Street
Paris Street
Heavitree Road
Queen Street
South Street
Fore Street
Bonhay Road
Iron Bridge
Paul Street
Buddle Lane
Dunsford Road
Alphington Road
Marsh Barton Road
Topsham Road
Matford Lane
Proposed cycling route improvements
Quiet route
Upgrade of existing provision
Junction improvement
School
Hospital facility
Railway station
Exeter bus station
0
150
300
600 m
Contains Ordnance Survey data © Crown copyright and database right 2023.

E5 - Stoke Hill to St Thomas (Sheet 2/2)



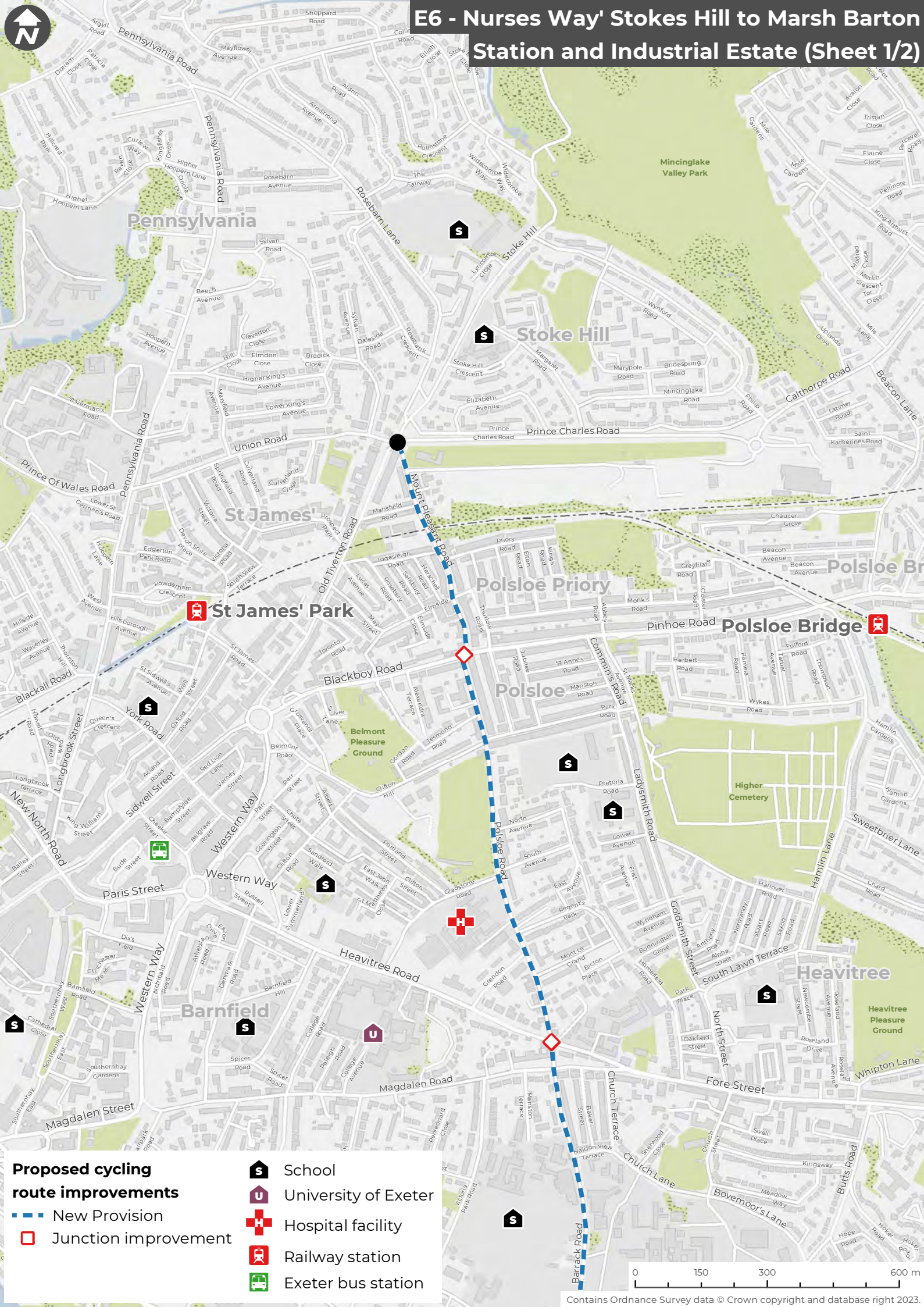
E6 - Nurses Way' Stokes Hill to Marsh Barton Station and Industrial Estate



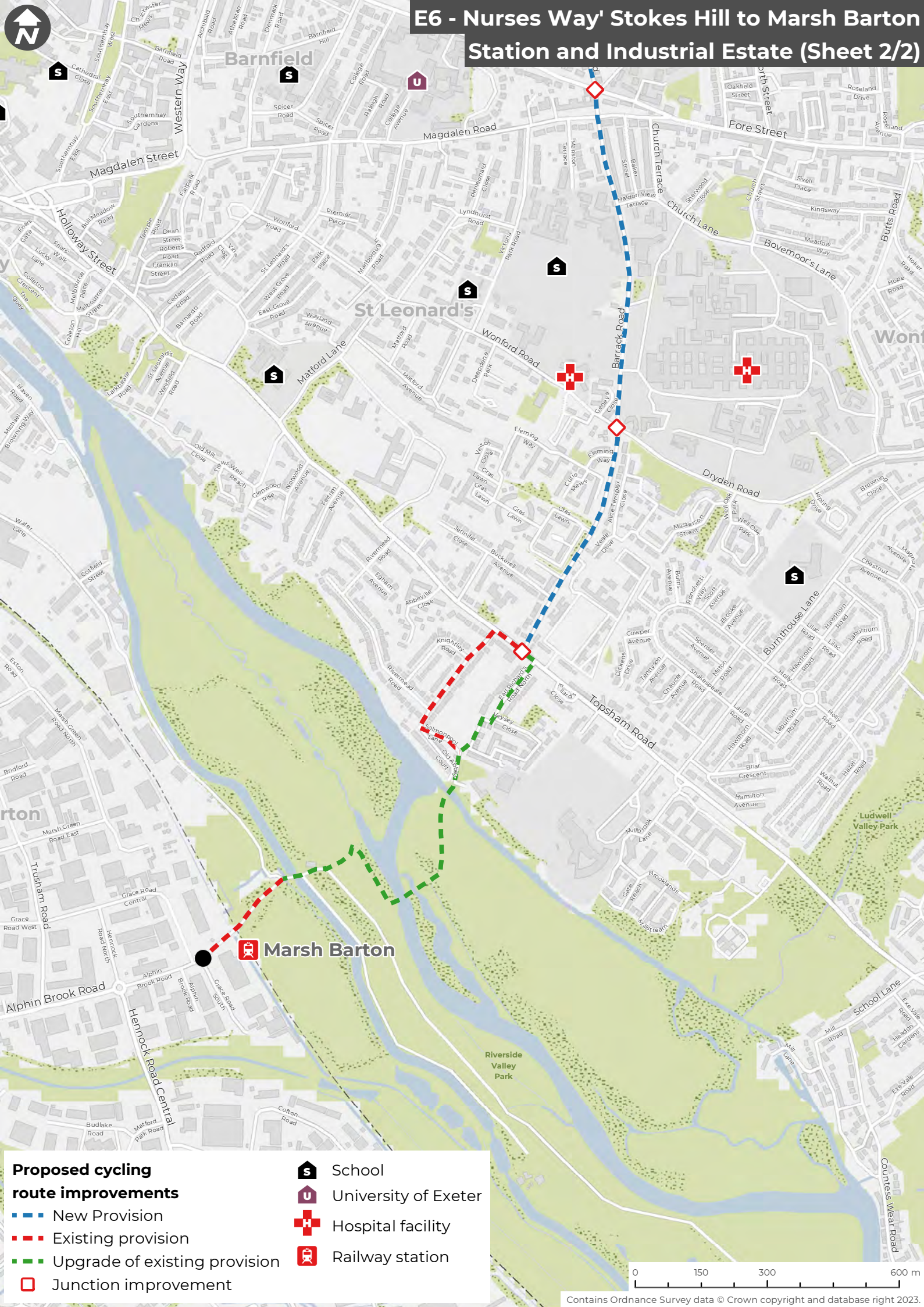
Proposed cycling route improvements

- Segregated; New Provision; Shared
- Existing provision
- Upgrade

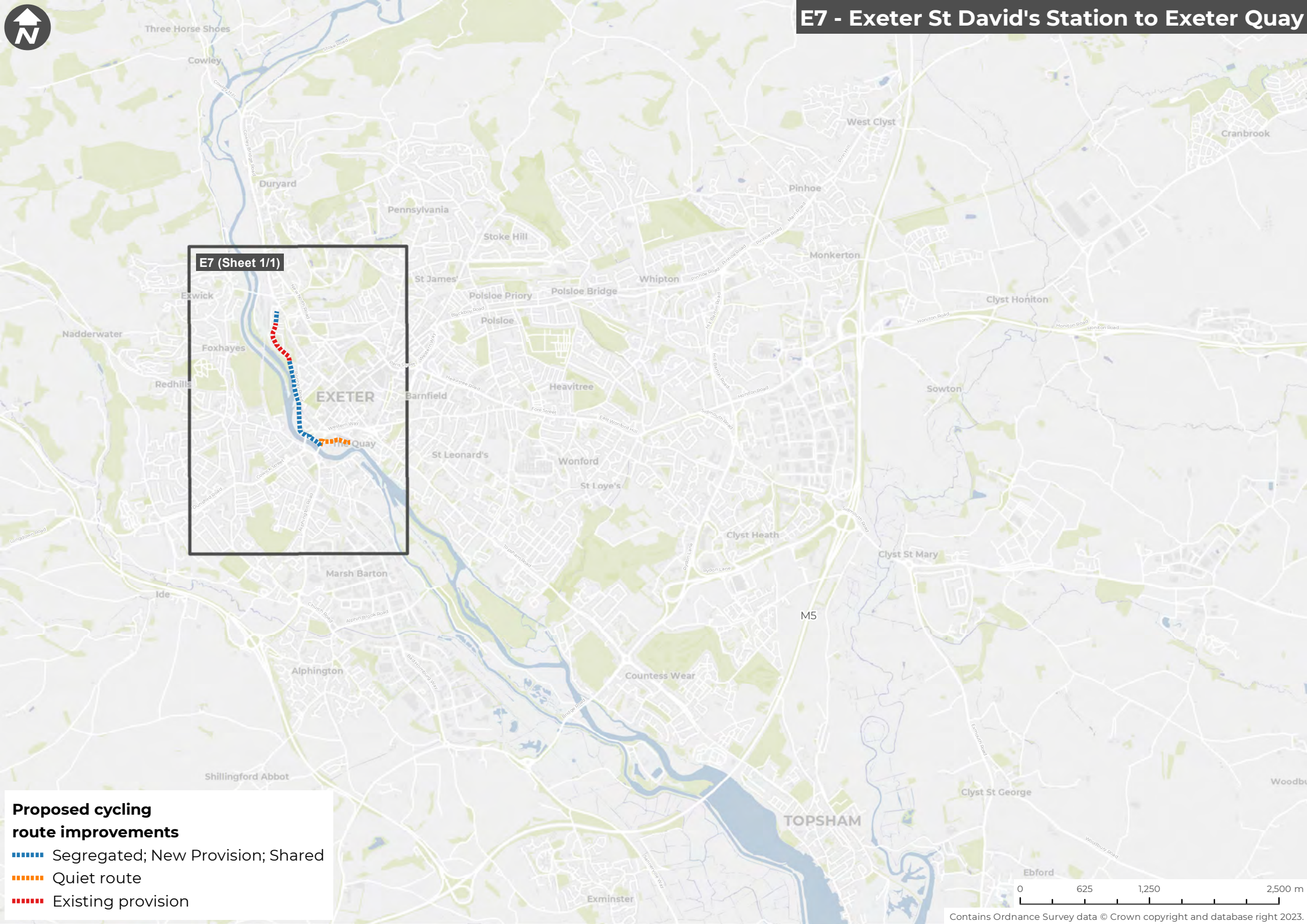
E6 - Nurses Way' Stokes Hill to Marsh Barton Station and Industrial Estate (Sheet 1/2)



E6 - Nurses Way' Stokes Hill to Marsh Barton Station and Industrial Estate (Sheet 2/2)



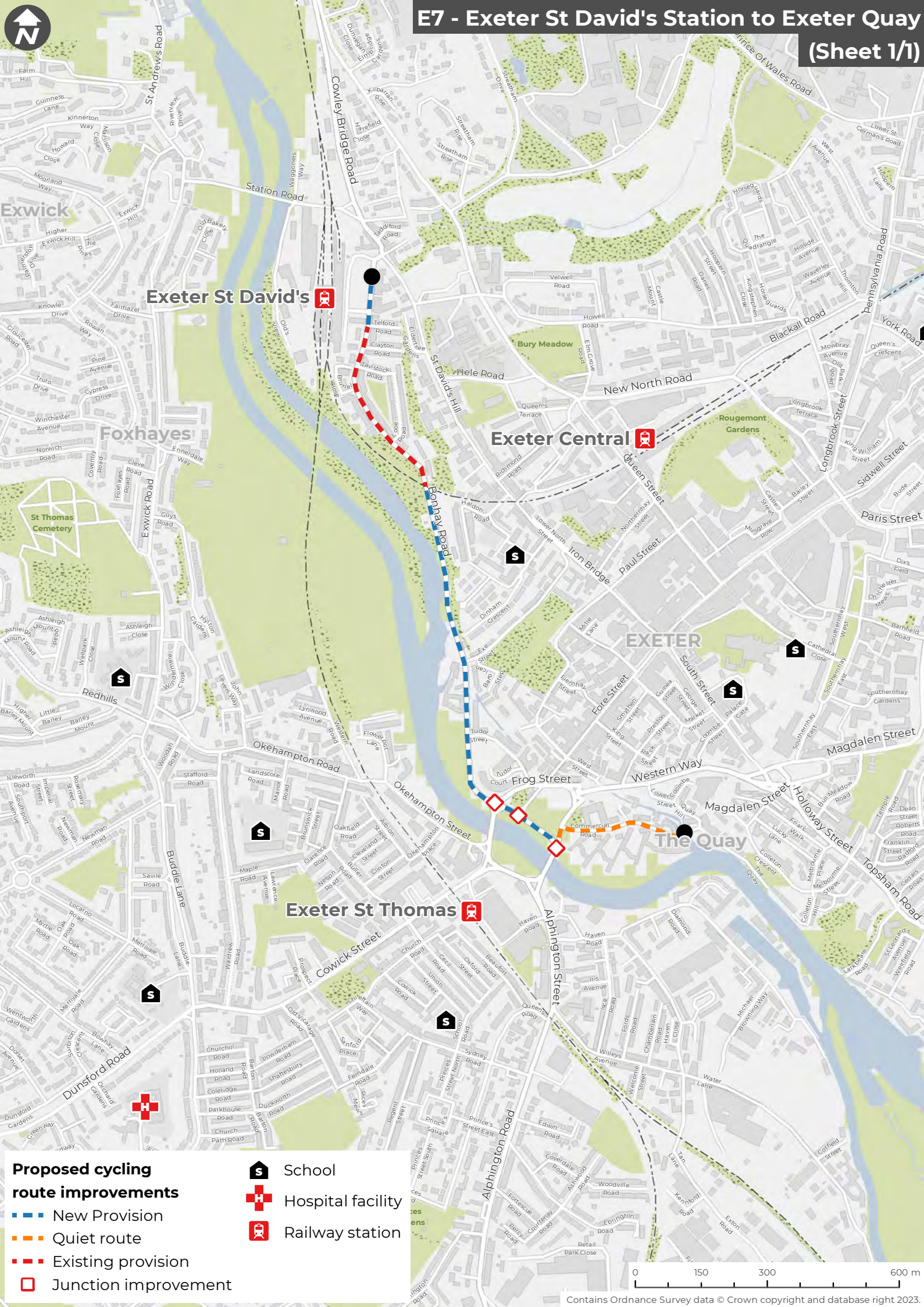
E7 - Exeter St David's Station to Exeter Quay



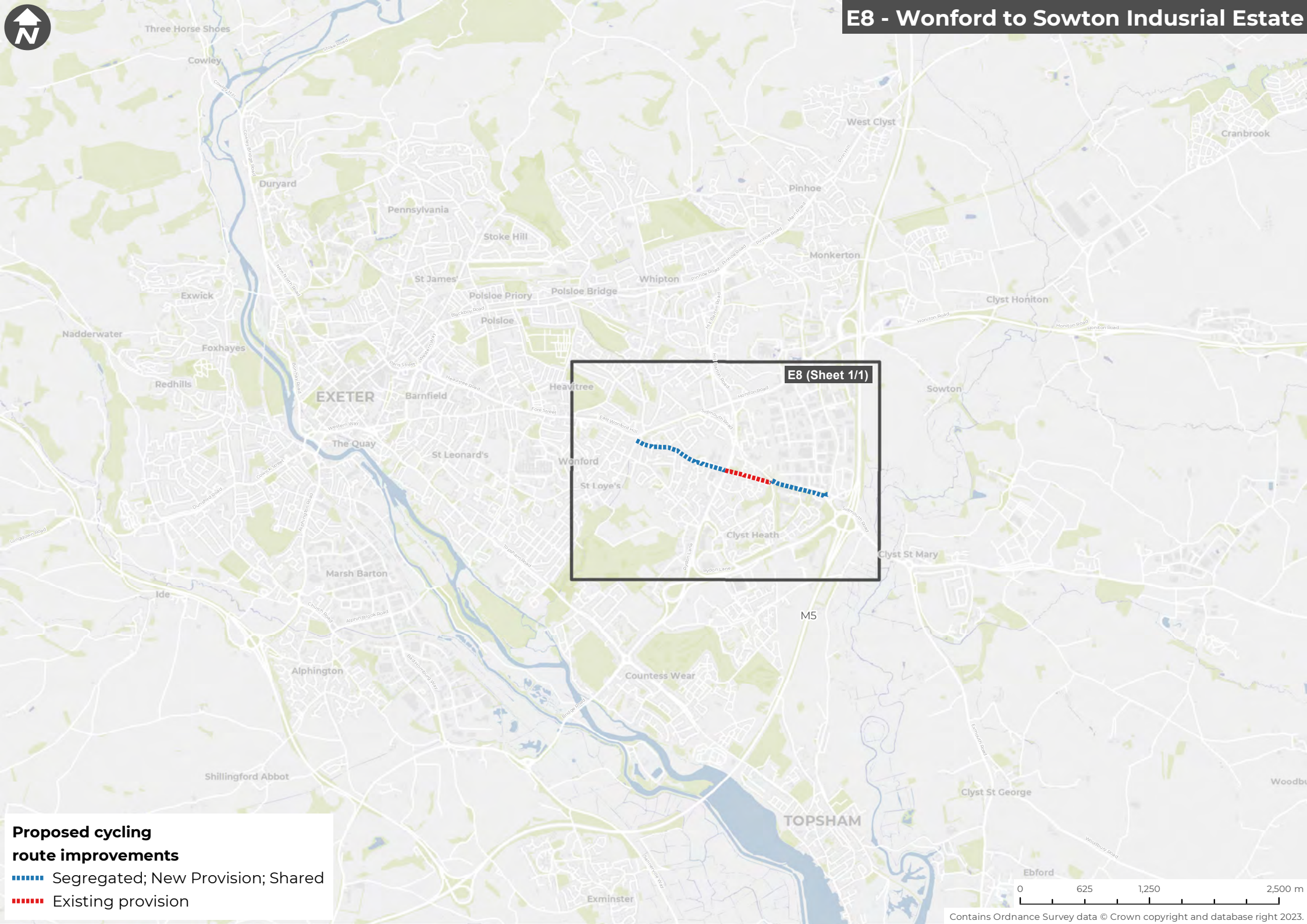
Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision

E7 - Exeter St David's Station to Exeter Quay (Sheet 1/1)



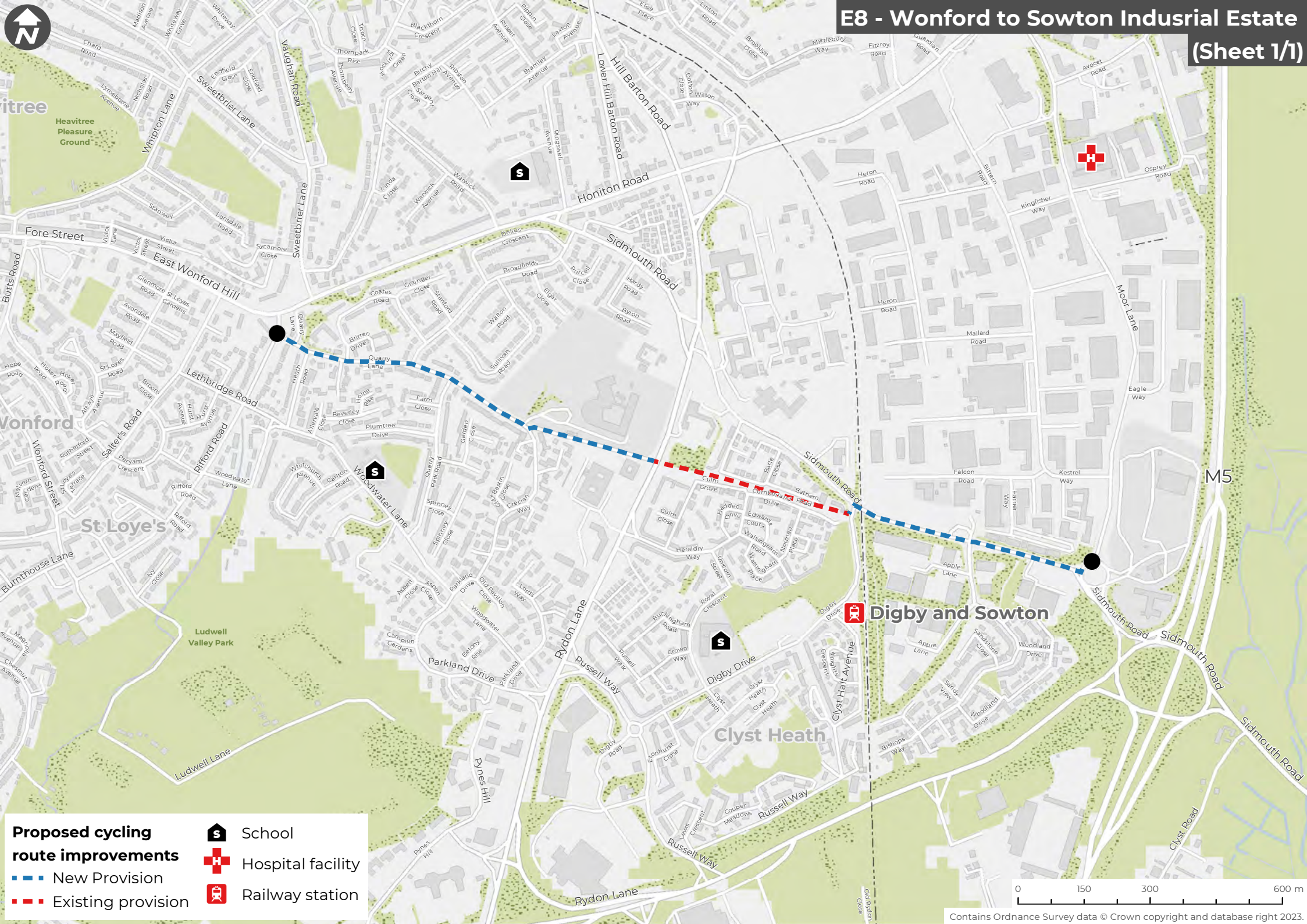
E8 - Wonford to Sowton Indusrial Estate



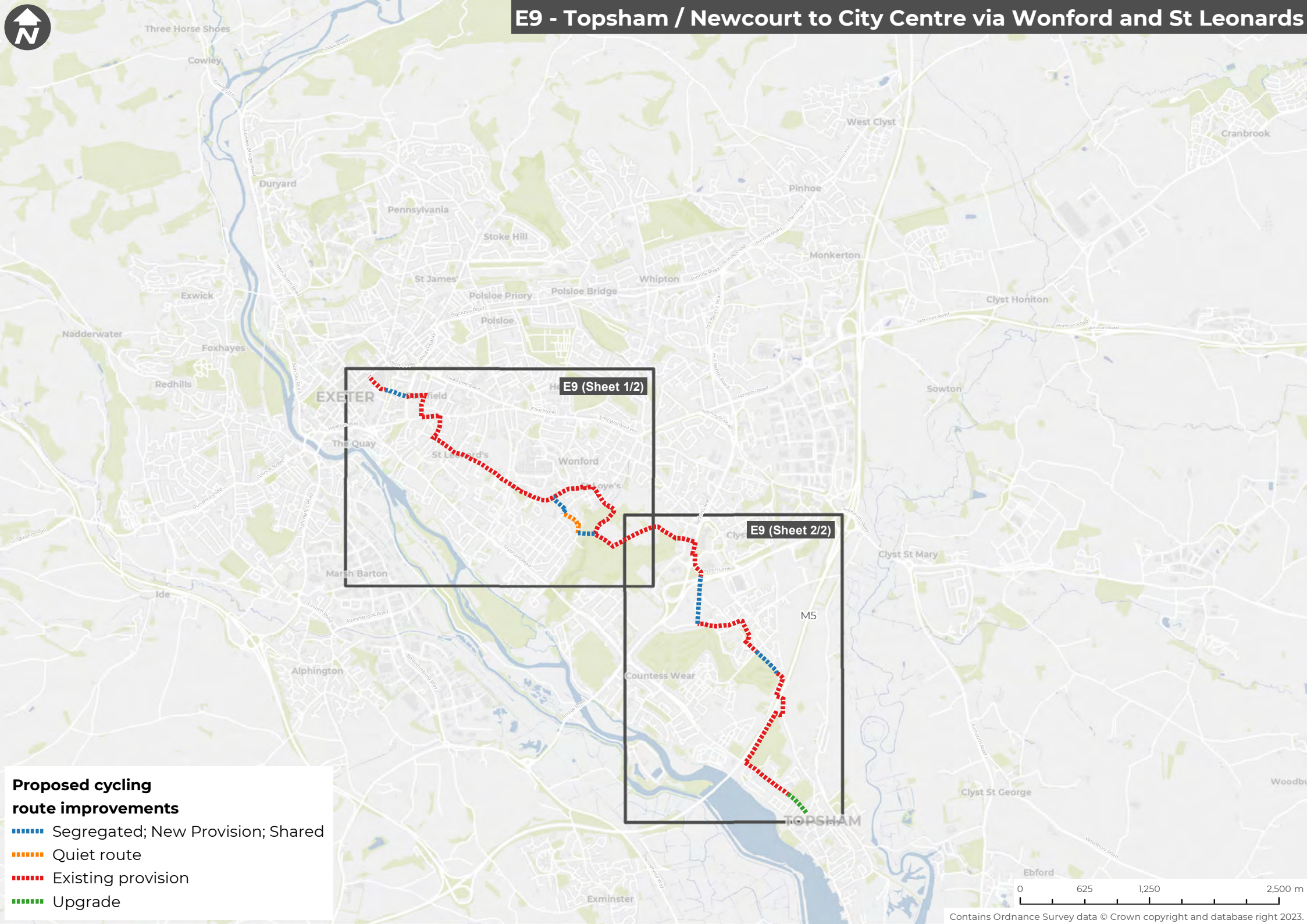
Proposed cycling route improvements

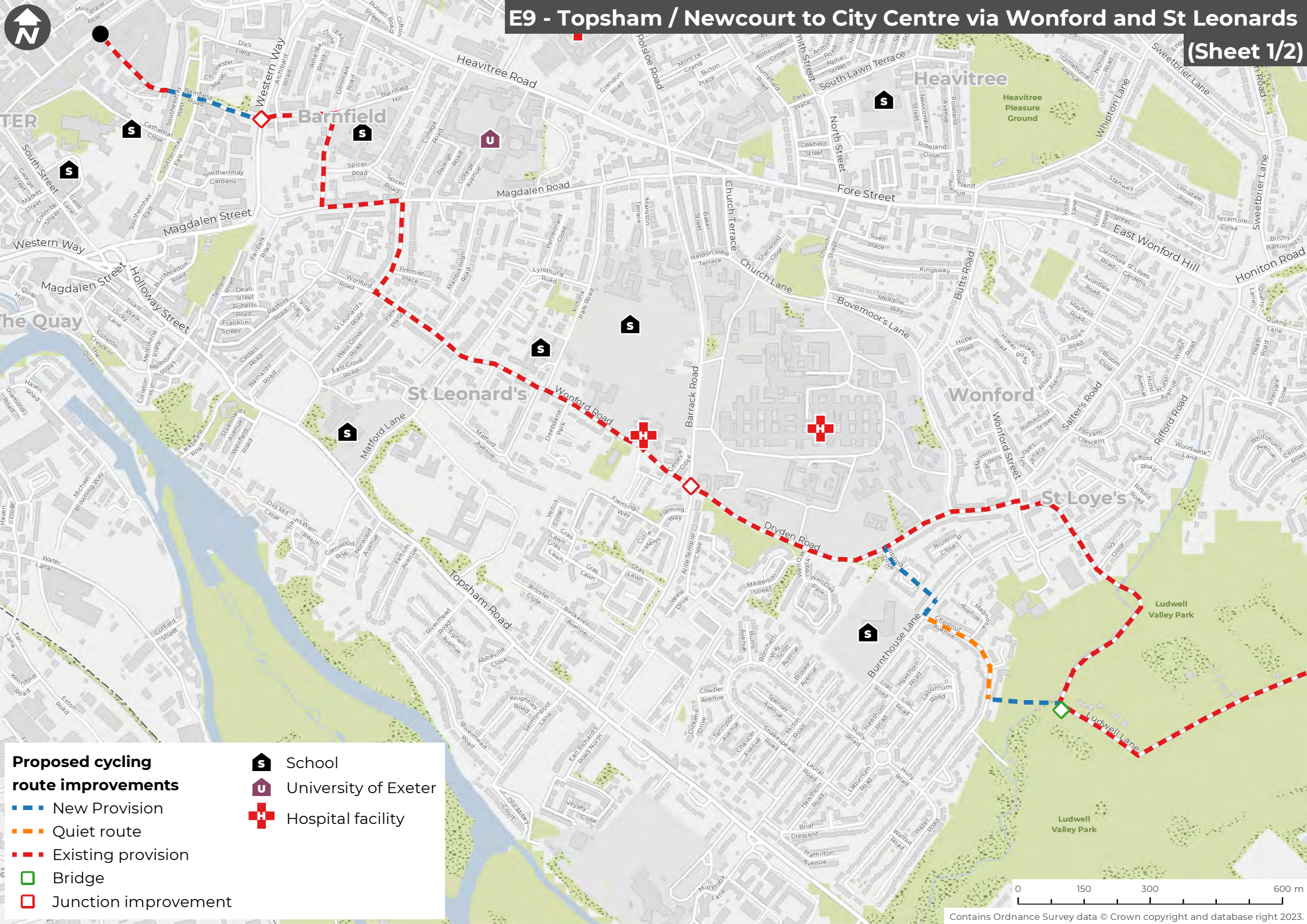
- Segregated; New Provision; Shared
- Existing provision

E8 - Wonford to Sowton Indusrial Estate (Sheet 1/1)



E9 - Topsham / Newcourt to City Centre via Wonford and St Leonards




E9 - Topsham / Newcourt to City Centre via Wonford and St Leonards
(Sheet 1/2)
Proposed cycling route improvements
New Provision
Quiet route
Existing provision
Bridge
Junction improvement
School
University of Exeter
Hospital facility
0
150
300
600 m
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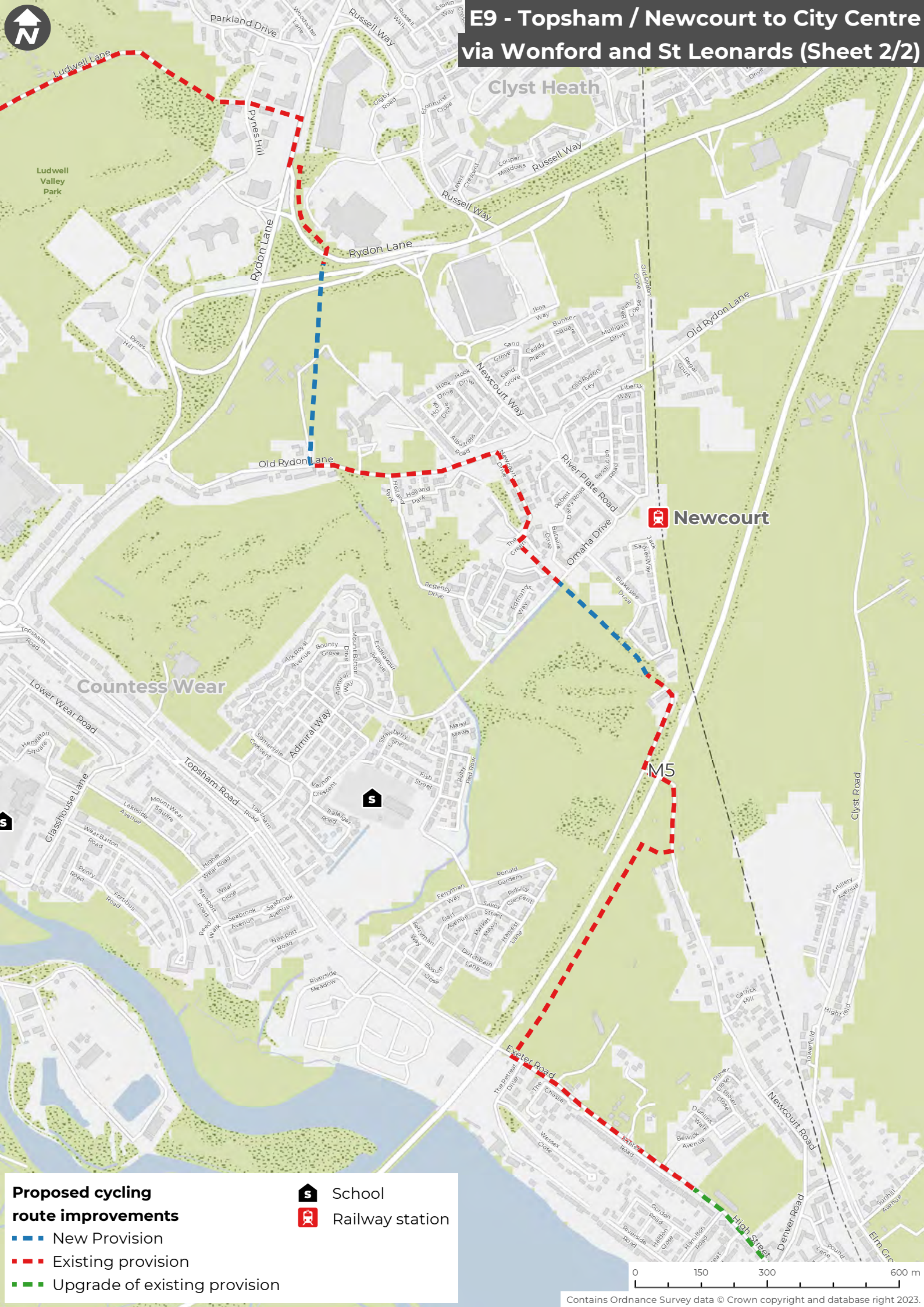
E9 - Topsham / Newcourt to City Centre via Wonford and St Leonards (Sheet 2/2)



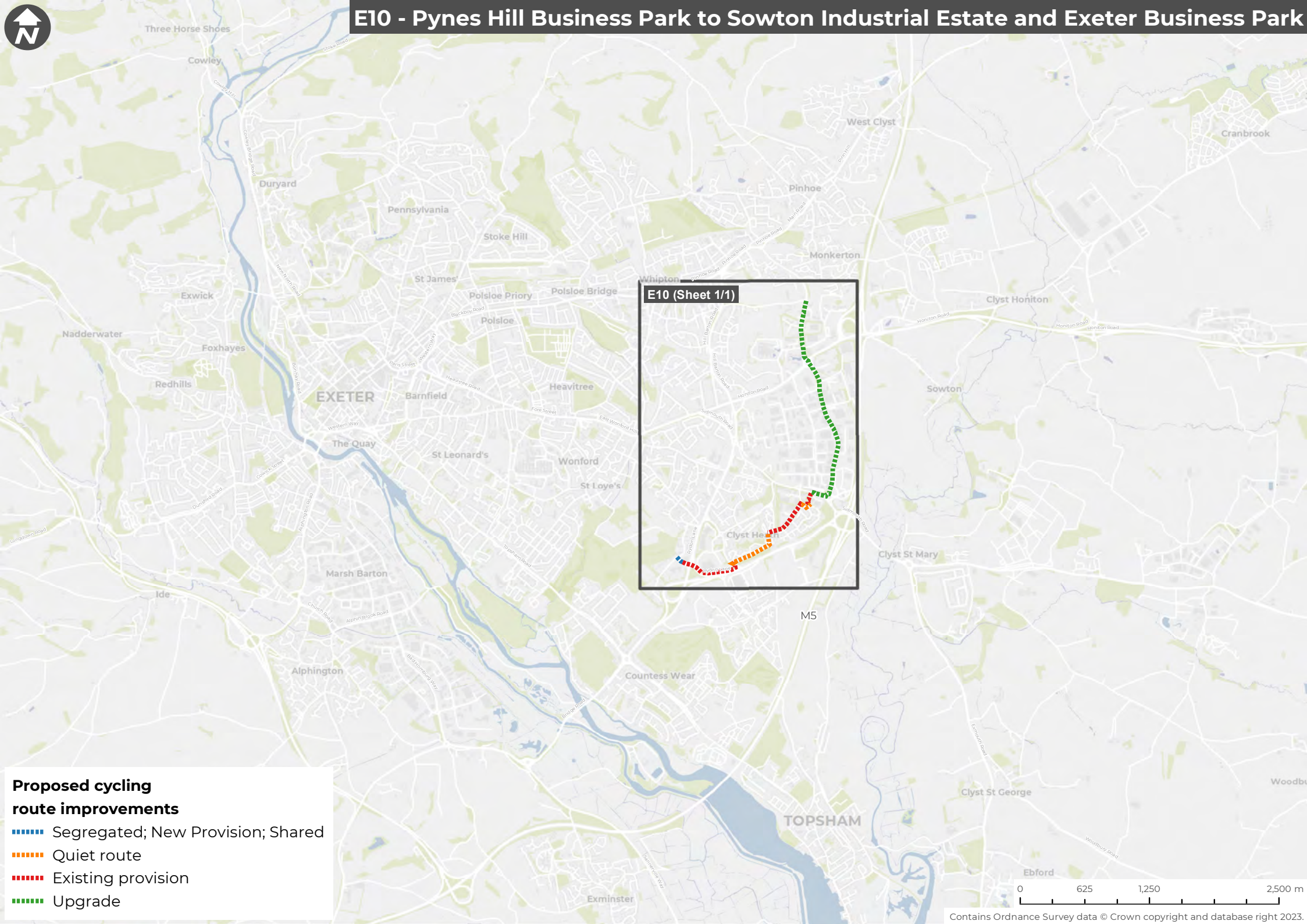
Proposed cycling route improvements

- New Provision
- Existing provision
- Upgrade of existing provision

- School
- Railway station

0 150 300 600 m

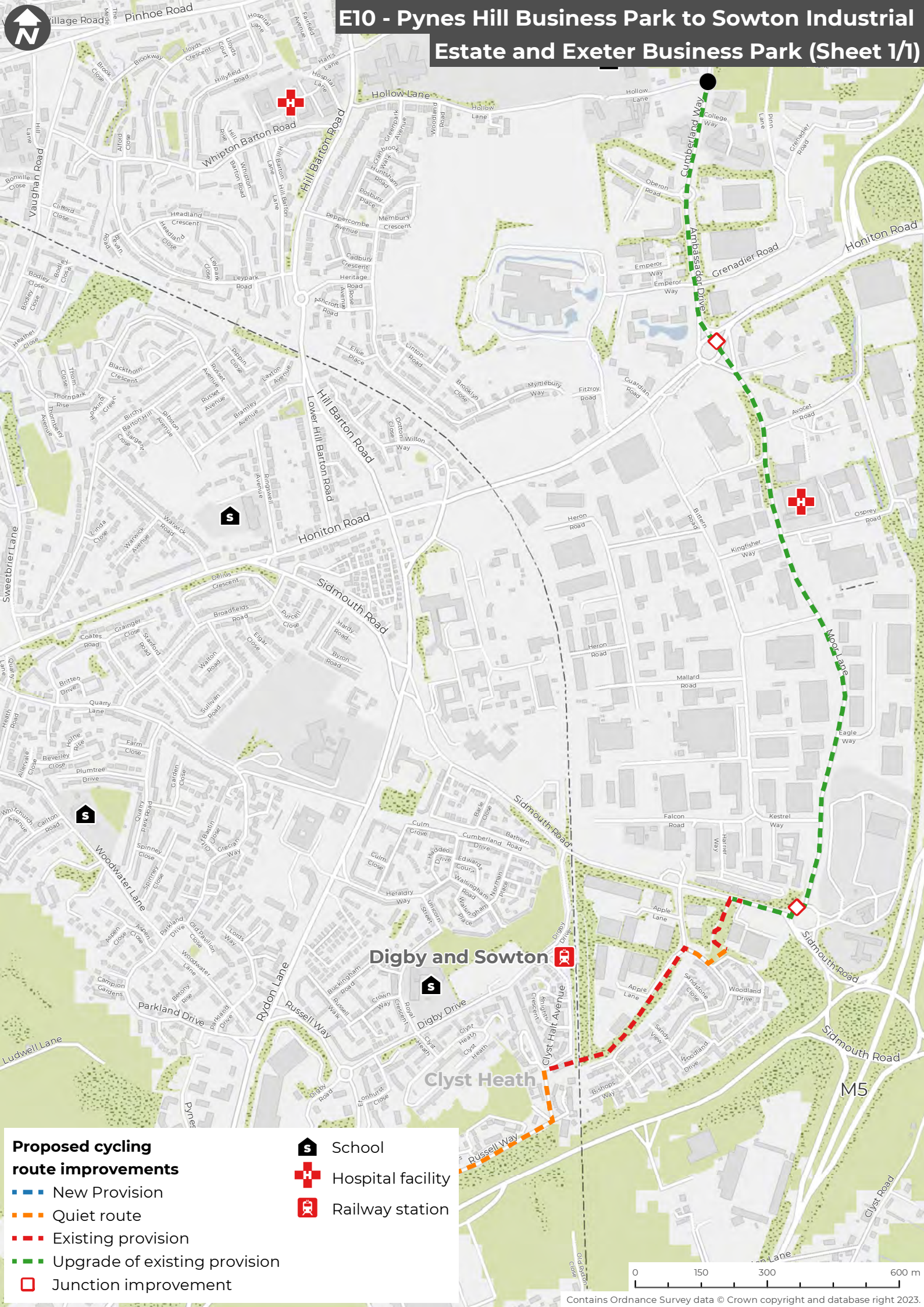
E10 - Pynes Hill Business Park to Sowton Industrial Estate and Exeter Business Park



Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision
- Upgrade

E10 - Pynes Hill Business Park to Sowton Industrial Estate and Exeter Business Park (Sheet 1/1)

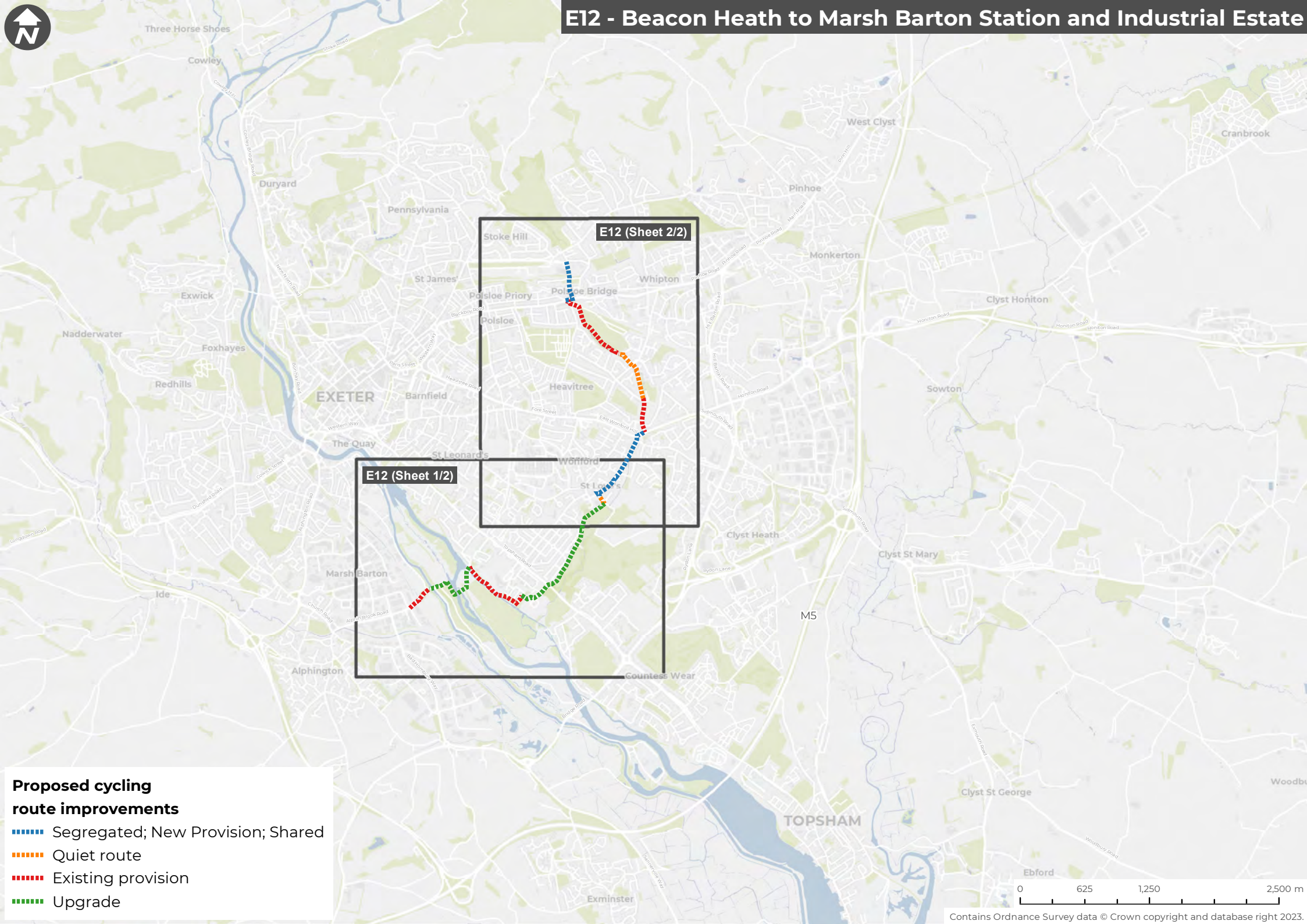


Proposed cycling route improvements

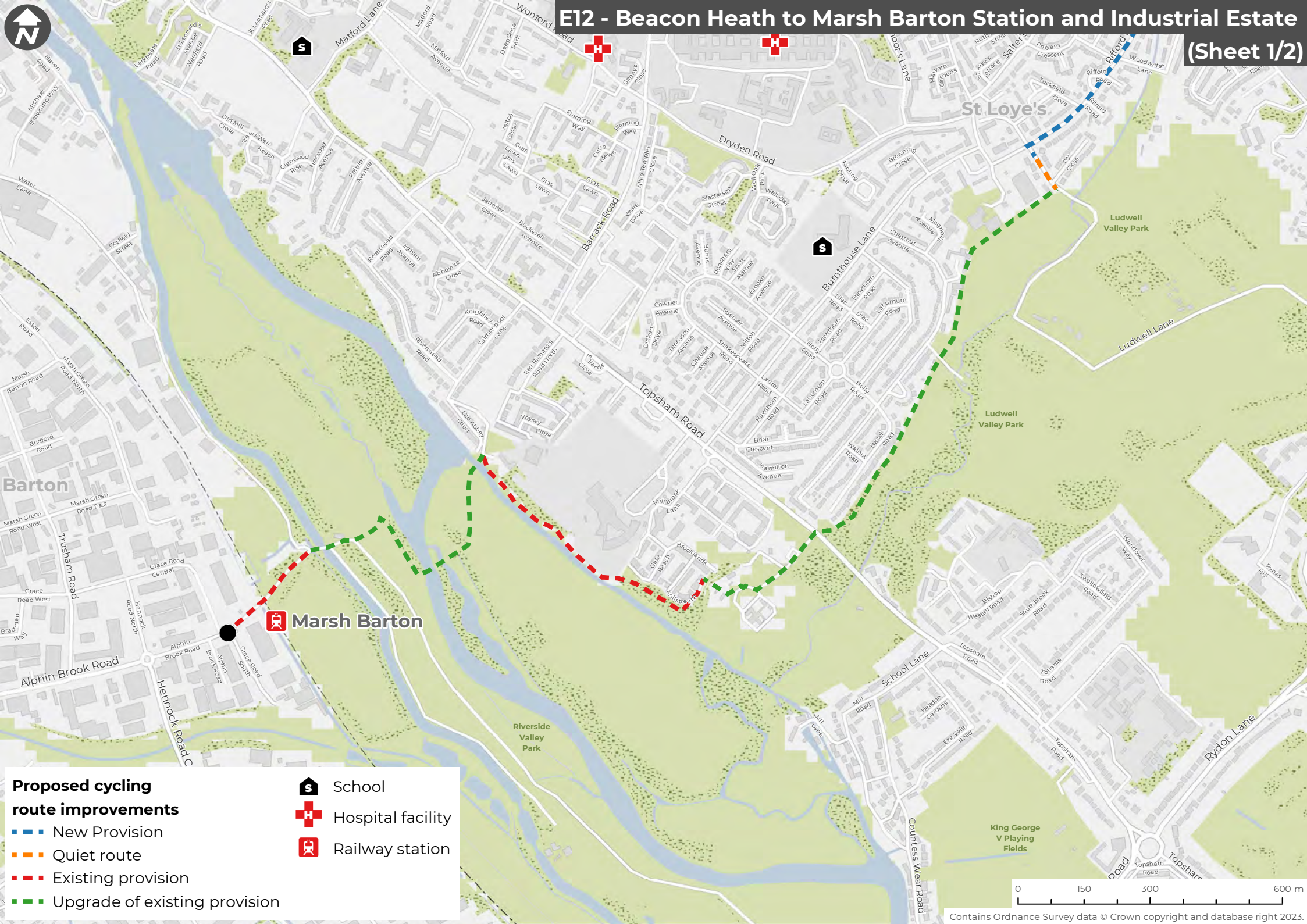
- New Provision
- Quiet route
- Existing provision
- Upgrade of existing provision
- Junction improvement

- School
- Hospital facility
- Railway station

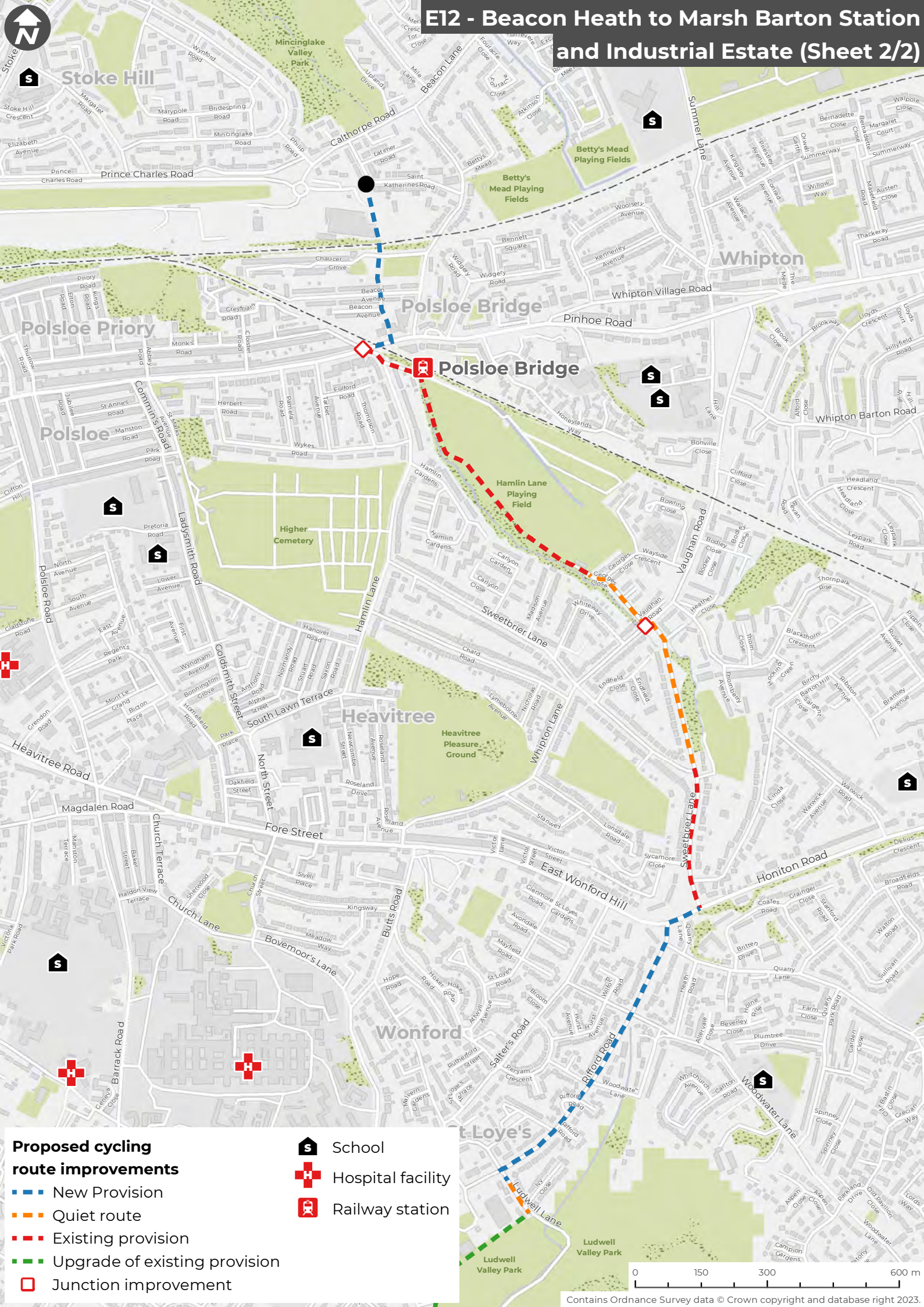
E12 - Beacon Heath to Marsh Barton Station and Industrial Estate



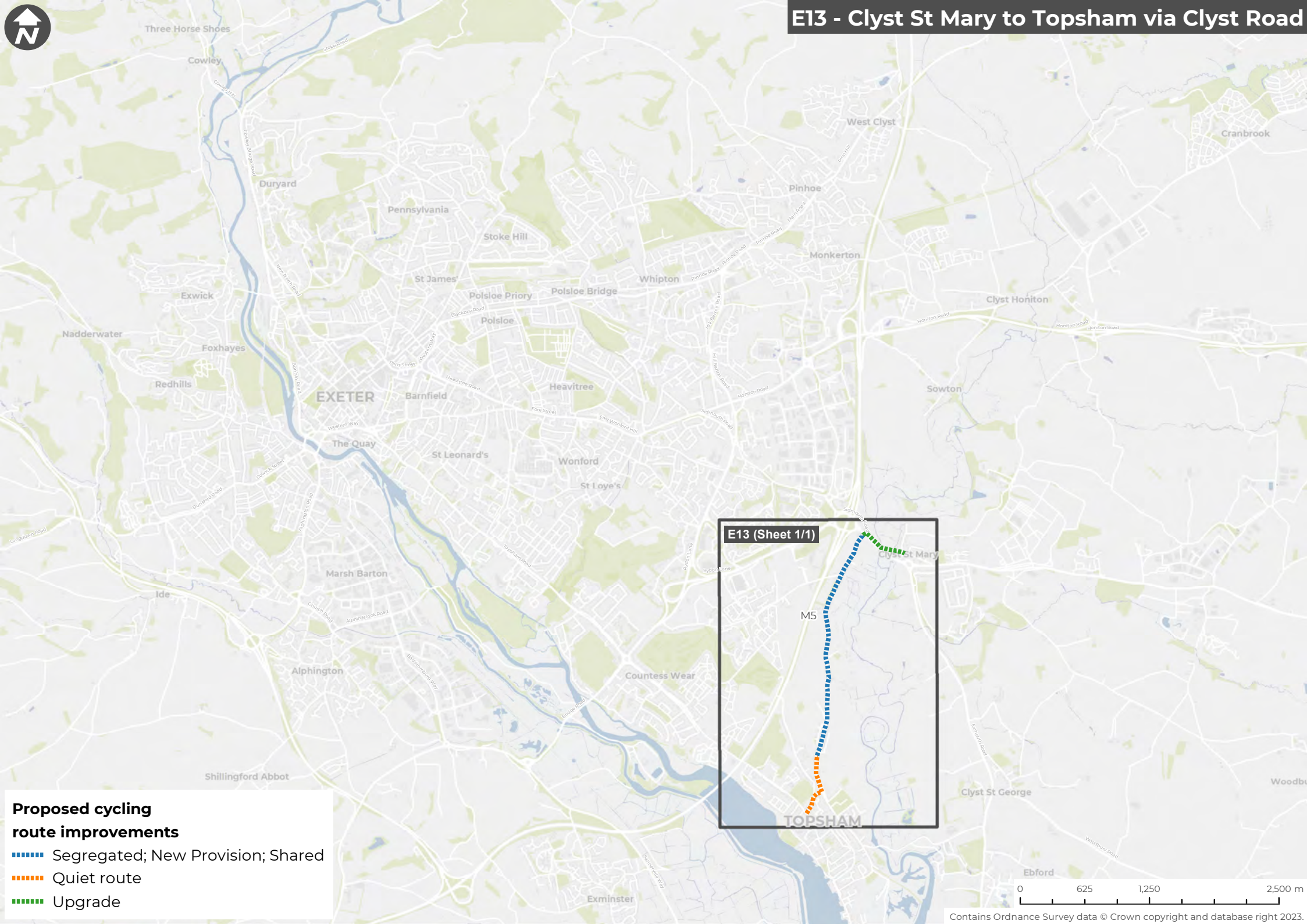
E12 - Beacon Heath to Marsh Barton Station and Industrial Estate (Sheet 1/2)

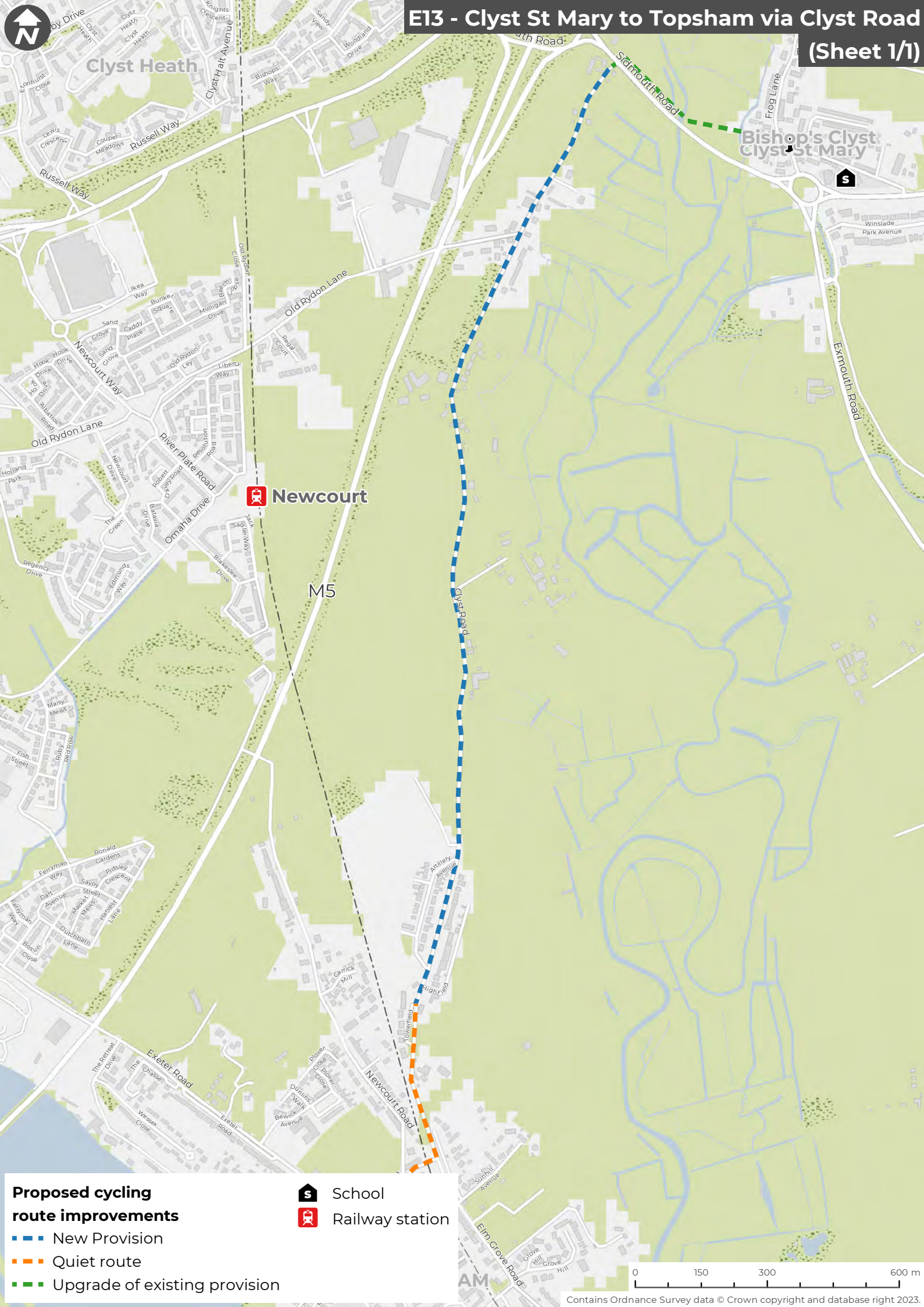


E12 - Beacon Heath to Marsh Barton Station and Industrial Estate (Sheet 2/2)



E13 - Clyst St Mary to Topsham via Clyst Road




E13 - Clyst St Mary to Topsham via Clyst Road
(Sheet 1/1)
Clyst Heath
Clyst Halt Avenue
Russell Way
Old Rydon Lane
Newcourt Way
River Plate Road
Omaha Drive
Newcourt
M5
Clyst Road
Sidmouth Road
Frog Lane
Bishop's Clyst
Clyst St Mary
Exmouth Road
Winslade Park Avenue
Exeter Road
Newcourt Road
Elm Grove Road
Proposed cycling route improvements
New Provision
Quiet route
Upgrade of existing provision
School
Railway station
0
150
300
600 m
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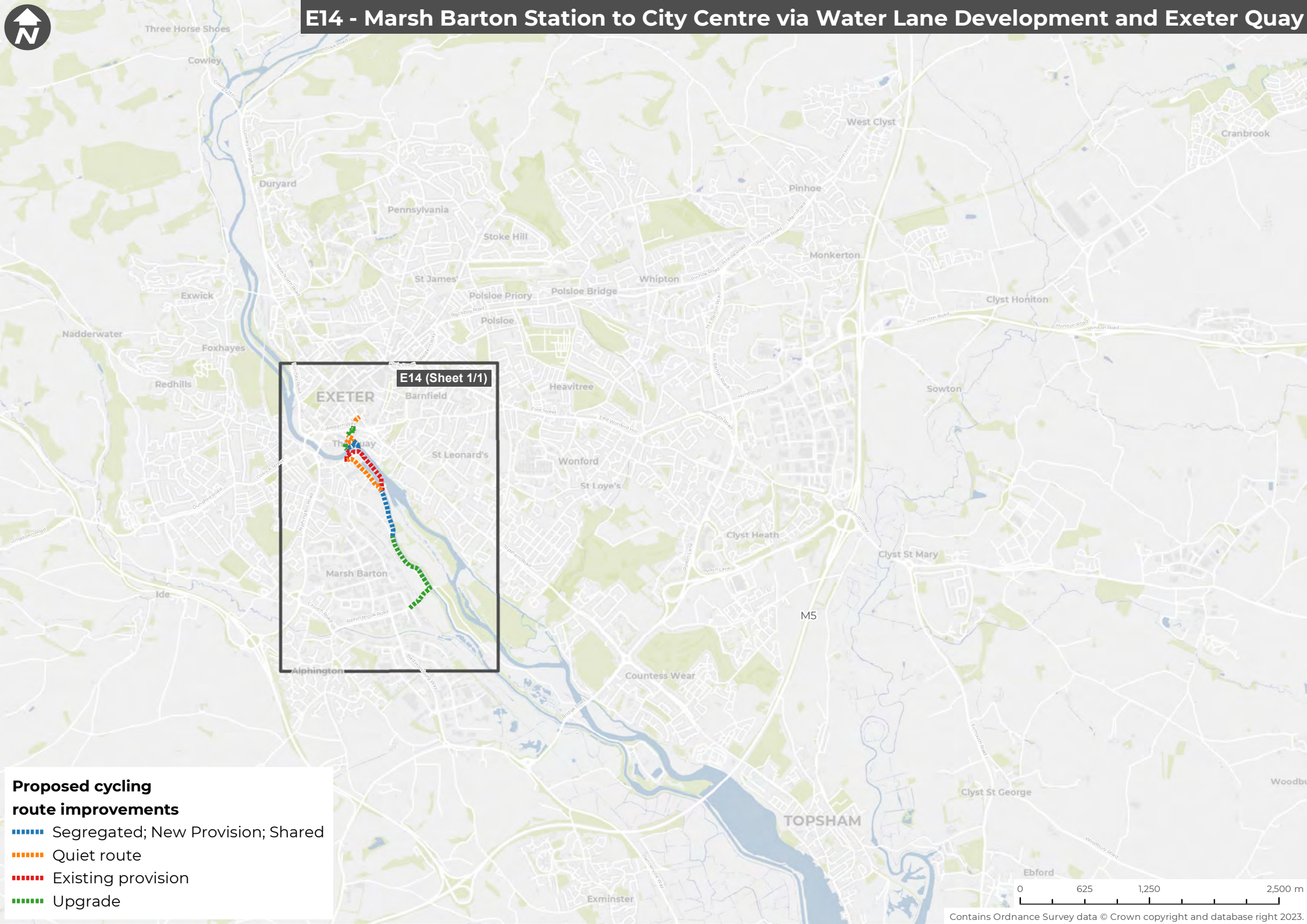
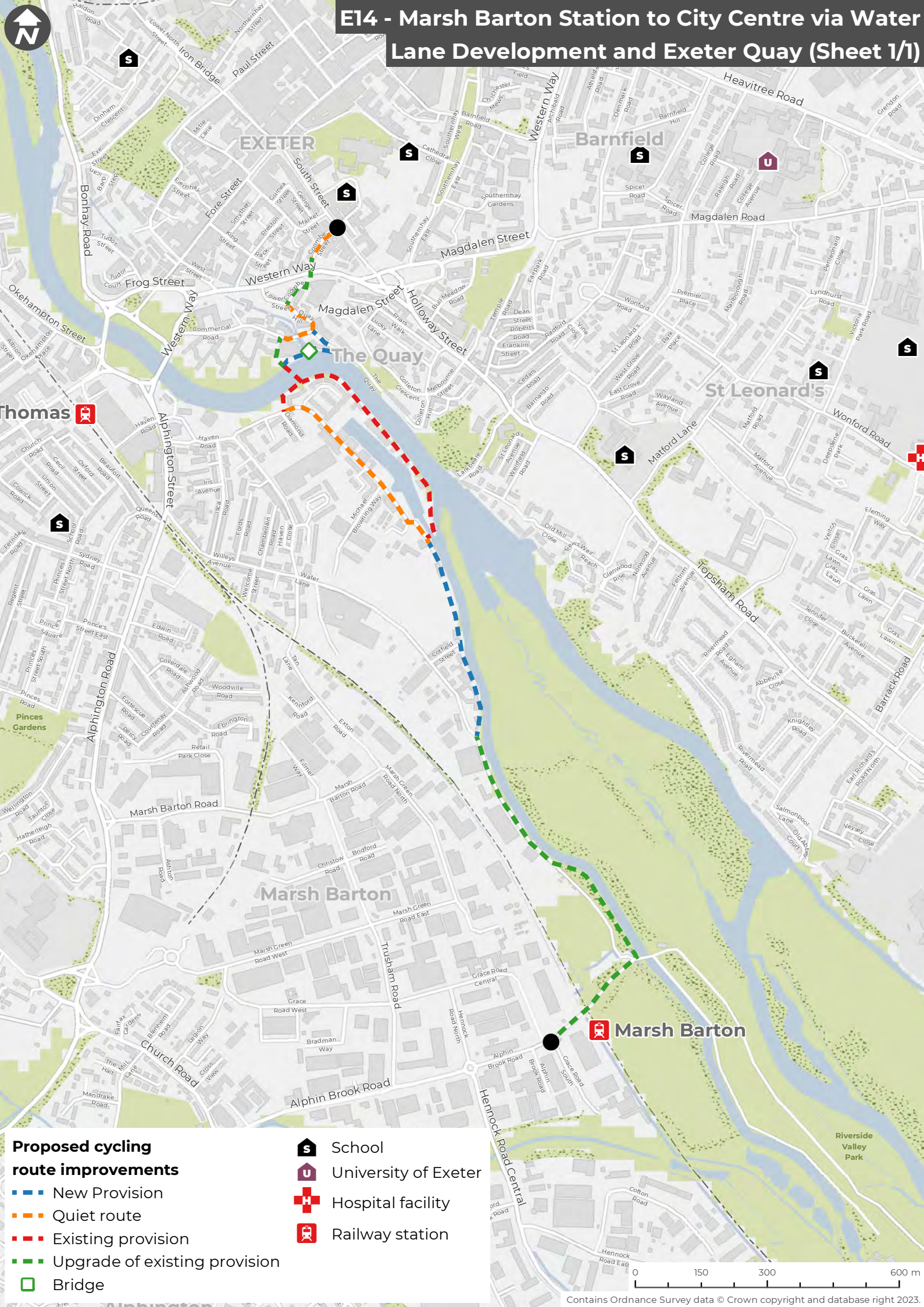
E14 - Marsh Barton Station to City Centre via Water Lane Development and Exeter Quay



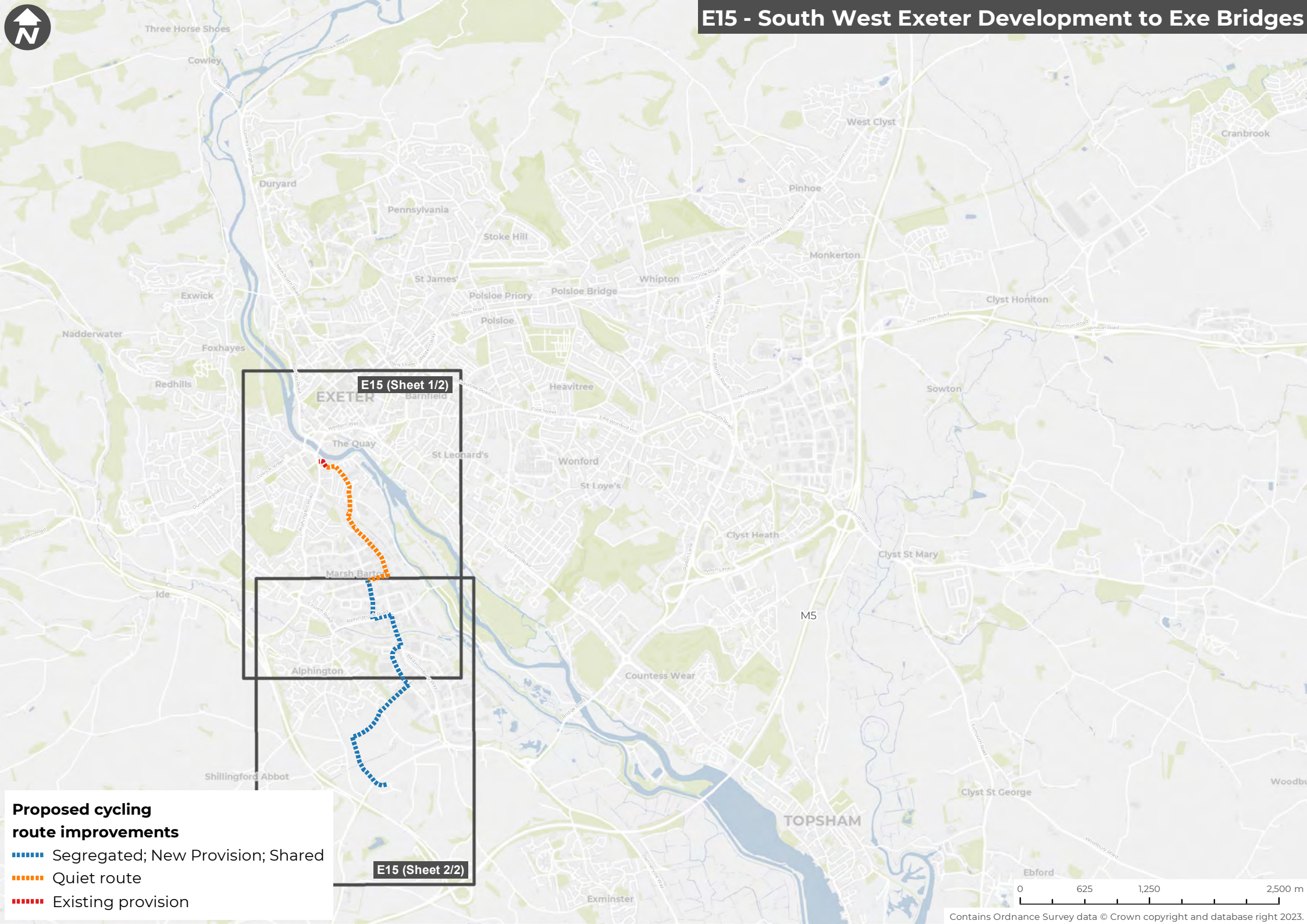
Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision
- Upgrade

E14 - Marsh Barton Station to City Centre via Water Lane Development and Exeter Quay (Sheet 1/1)



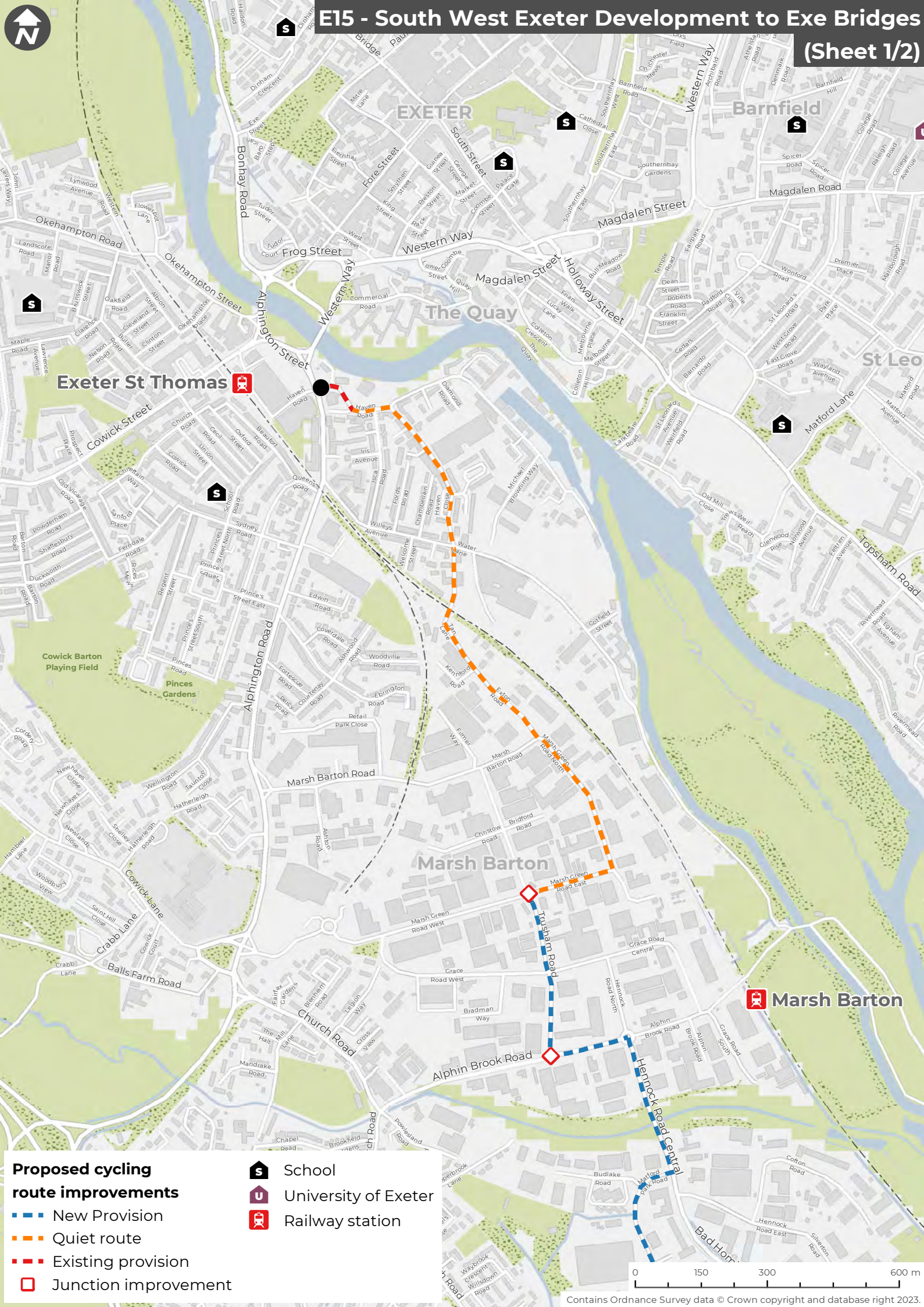
E15 - South West Exeter Development to Exe Bridges



Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision

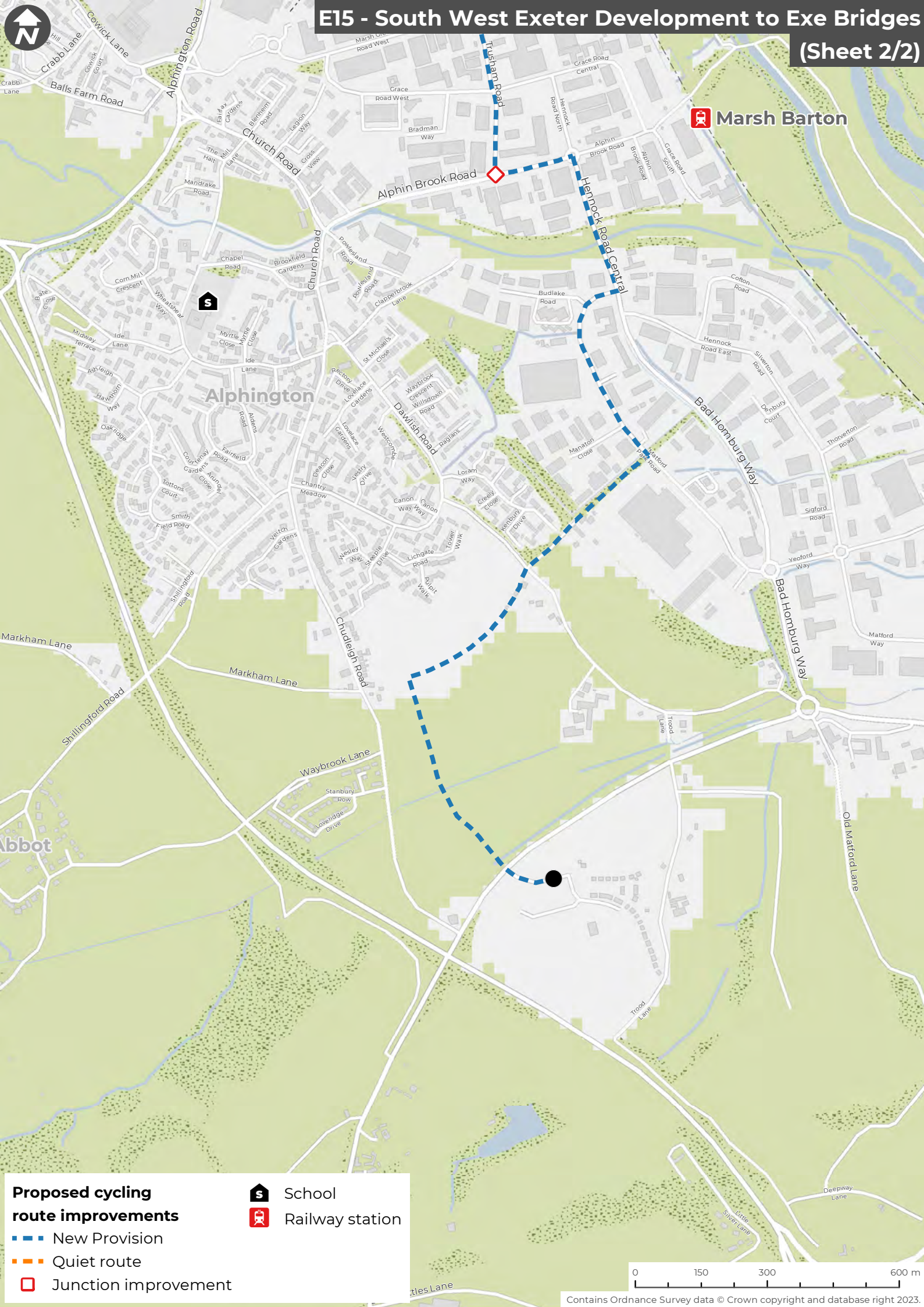
E15 - South West Exeter Development to Exe Bridges (Sheet 1/2)



Proposed cycling route improvements

- New Provision
- Quiet route
- Existing provision
- Junction improvement

- School
- University of Exeter
- Railway station


E15 - South West Exeter Development to Exe Bridges
(Sheet 2/2)
Marsh Barton
Alphington
Abbot
Alphington Road
Church Road
Alphin Brook Road
Hennock Road Central
Bad Hornburg Way
Dawlish Road
Chudleigh Road
Markham Lane
Shillingford Road
Waybrook Lane
Old Matford Lane
Trusham Road
Balls Farm Road
Crabb Lane
Cowick Lane
Proposed cycling route improvements
New Provision
Quiet route
Junction improvement
School
Railway station
0
150
300
600 m
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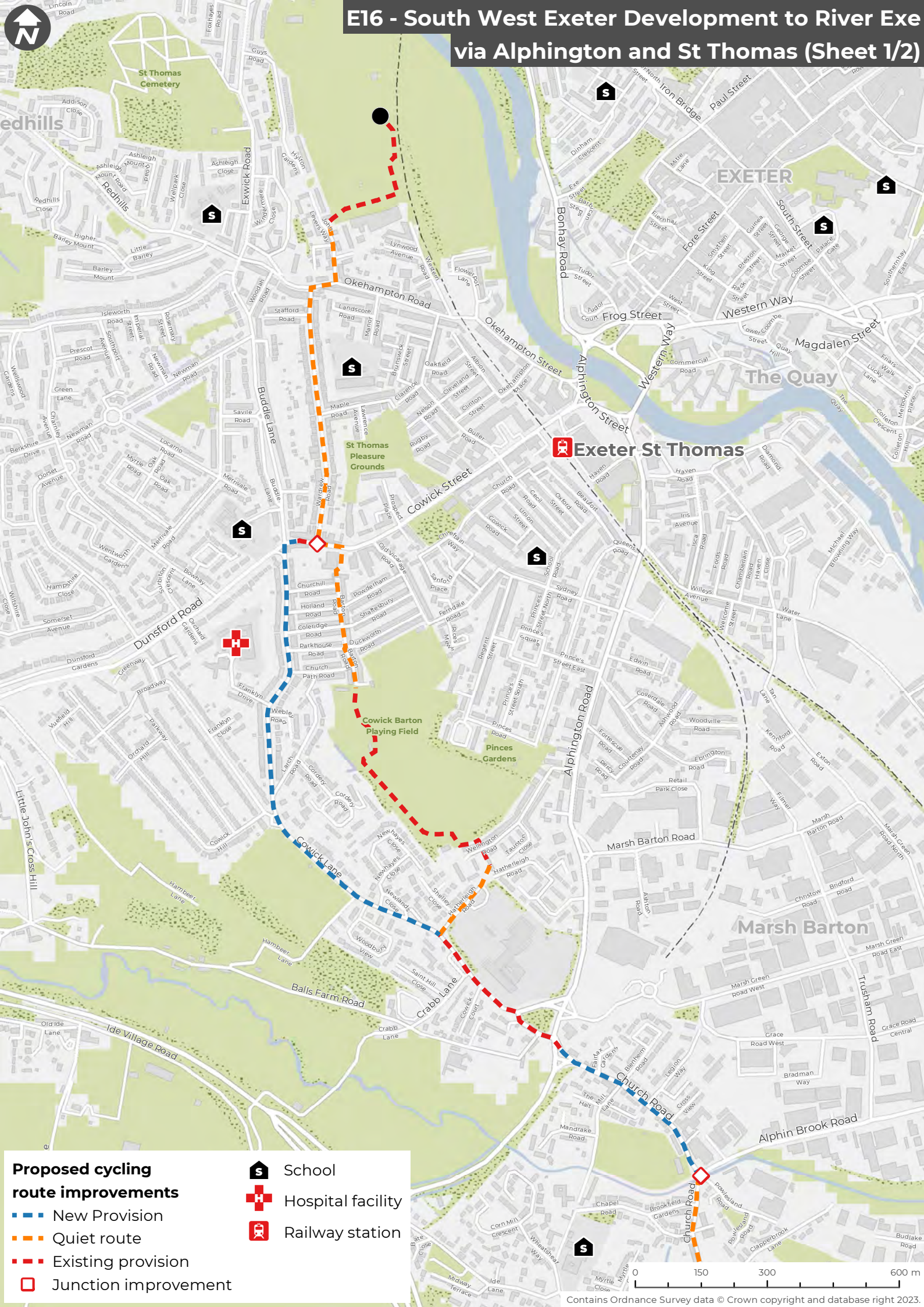
E16 - South West Exeter Development to River Exe via Alphington and St Thomas

Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision

E16 - South West Exeter Development to River Exe via Alphington and St Thomas (Sheet 1/2)

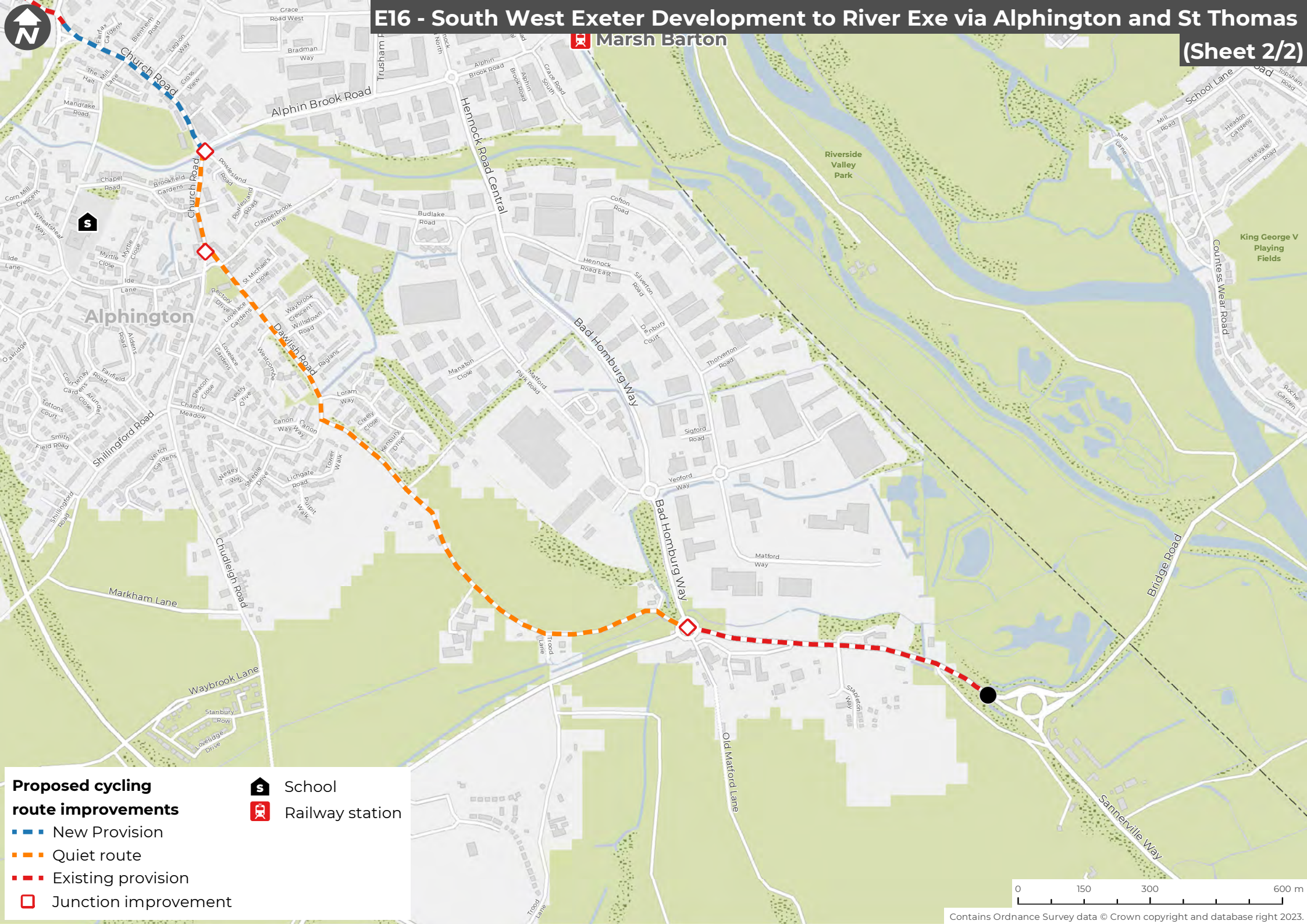


Proposed cycling route improvements

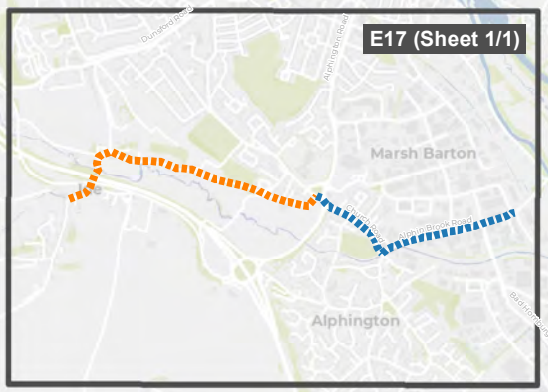
- New Provision
- Quiet route
- Existing provision
- Junction improvement

- School
- Hospital facility
- Railway station

E16 - South West Exeter Development to River Exe via Alphington and St Thomas (Sheet 2/2)



E17 - Ide to Marsh Barton Station and Industrial Estate

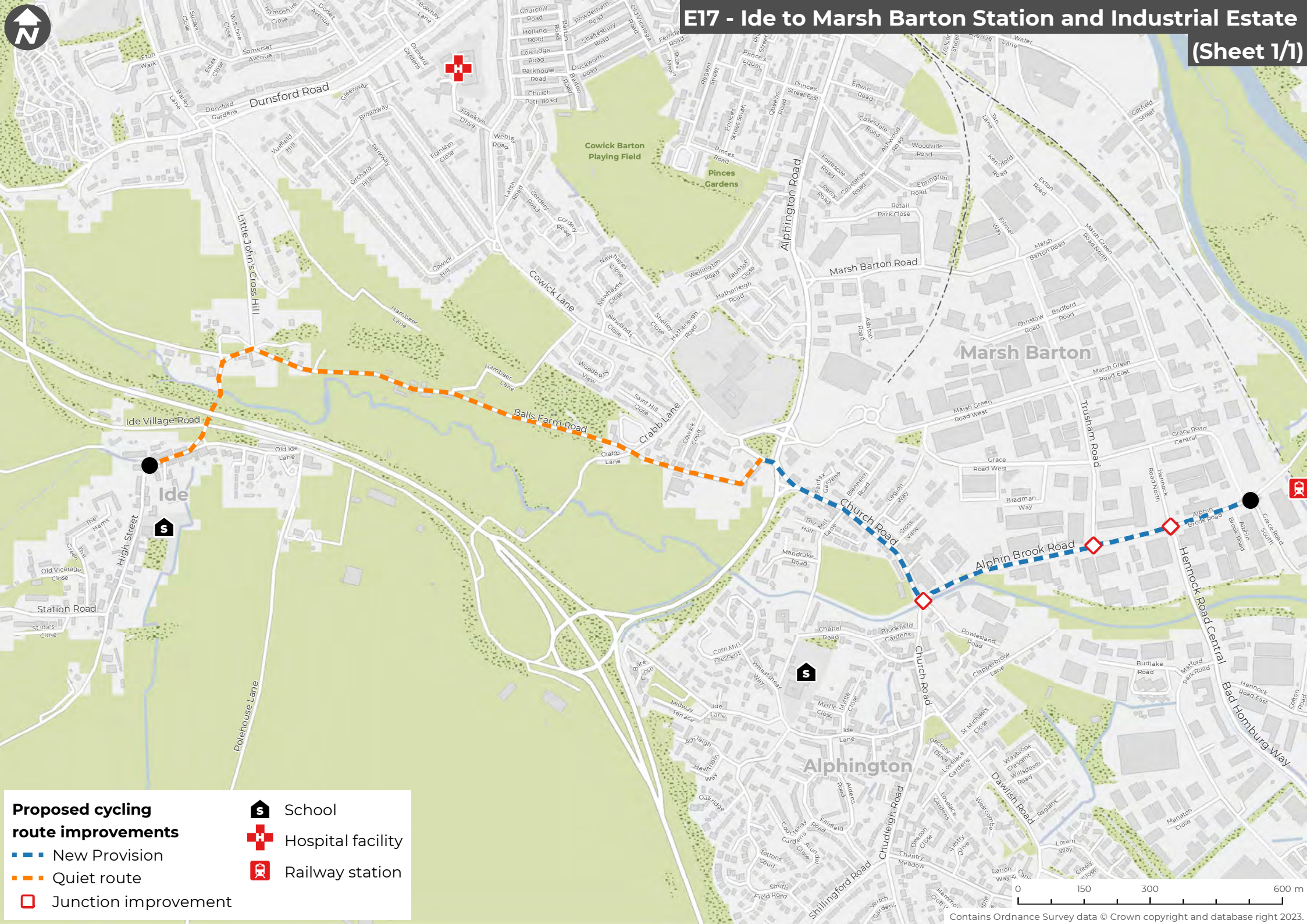


Proposed cycling route improvements

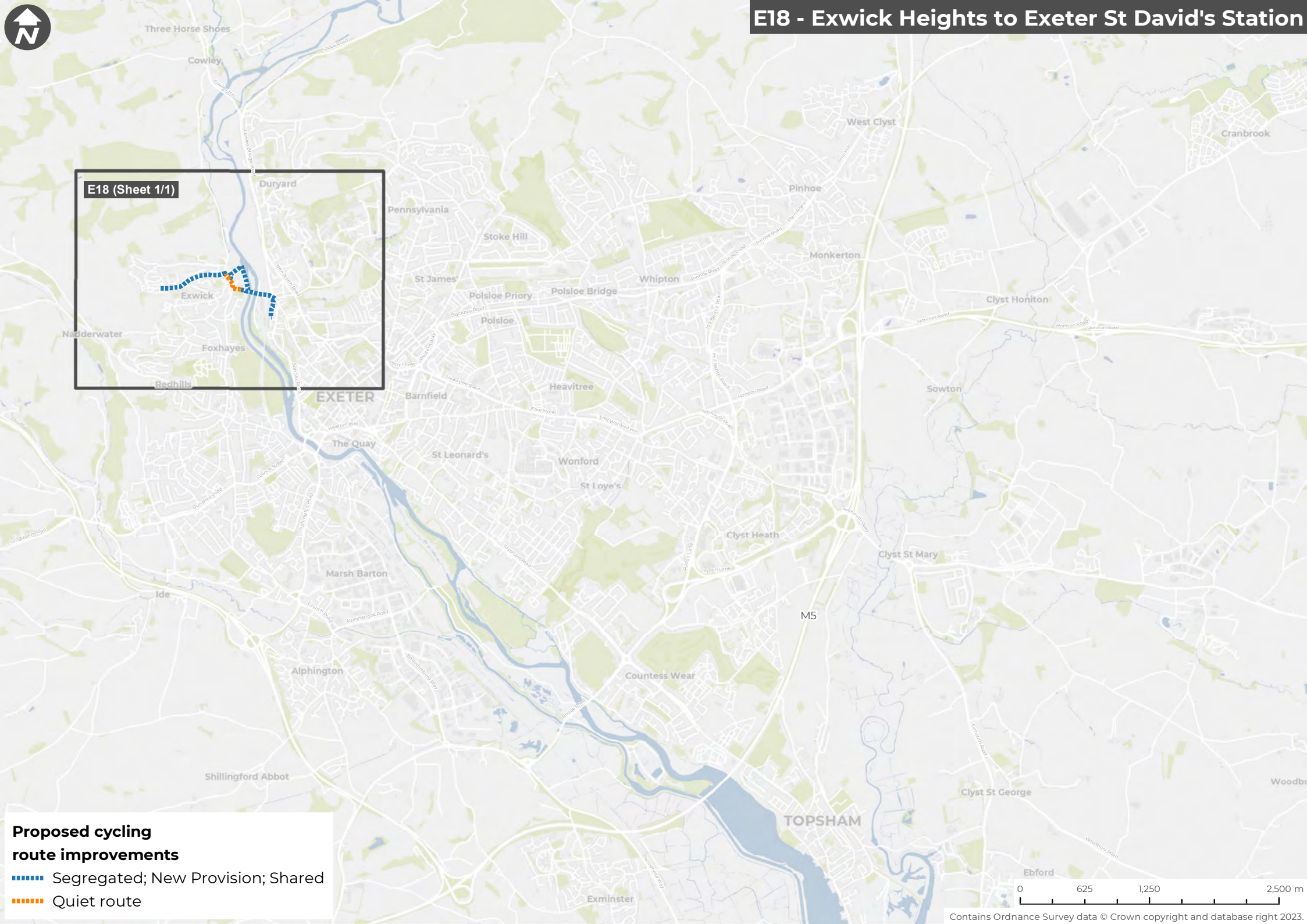
- Segregated; New Provision; Shared
- Quiet route

0 625 1,250 2,500 m

E17 - Ide to Marsh Barton Station and Industrial Estate (Sheet 1/1)



E18 - Exwick Heights to Exeter St David's Station

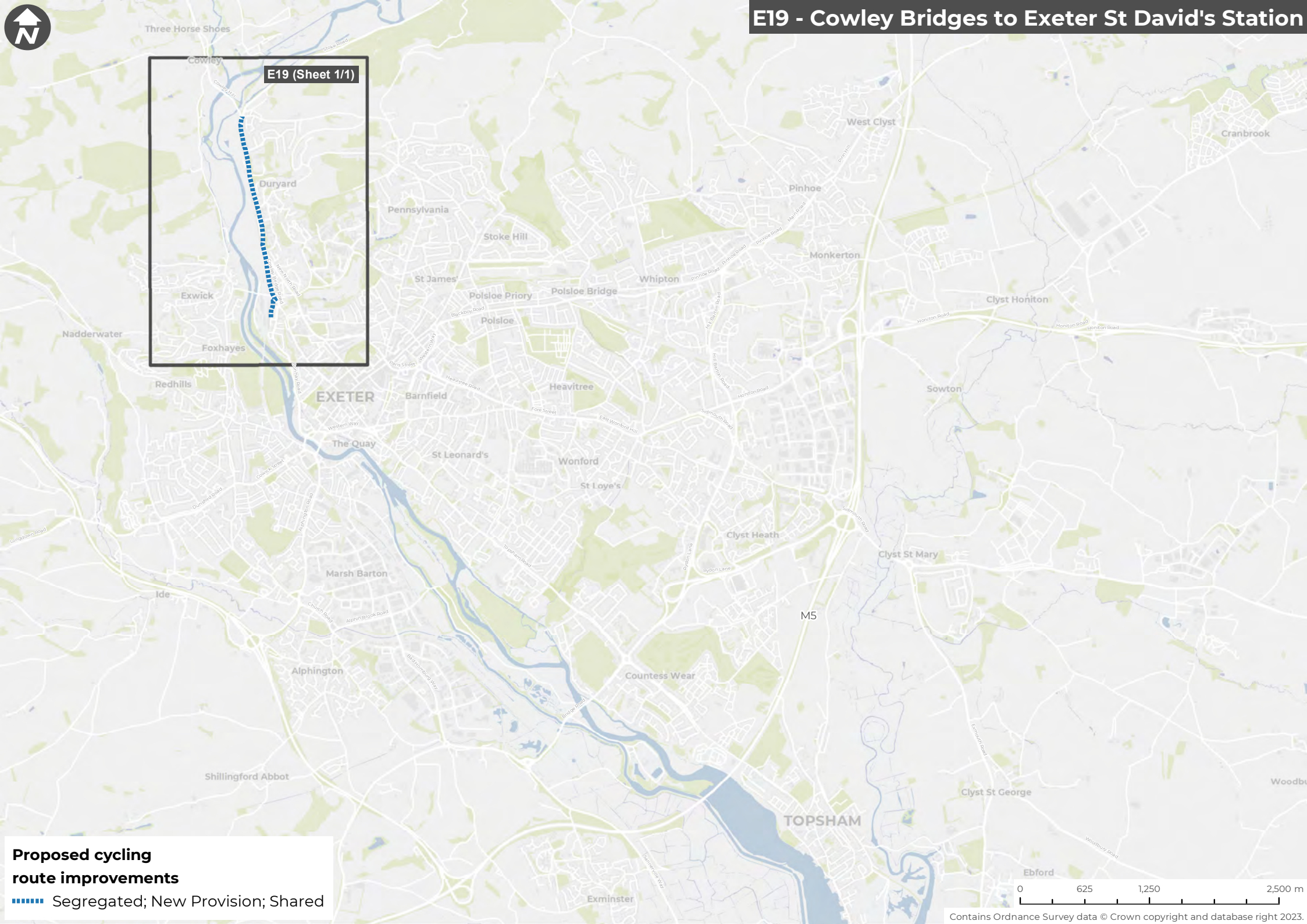


Proposed cycling route improvements

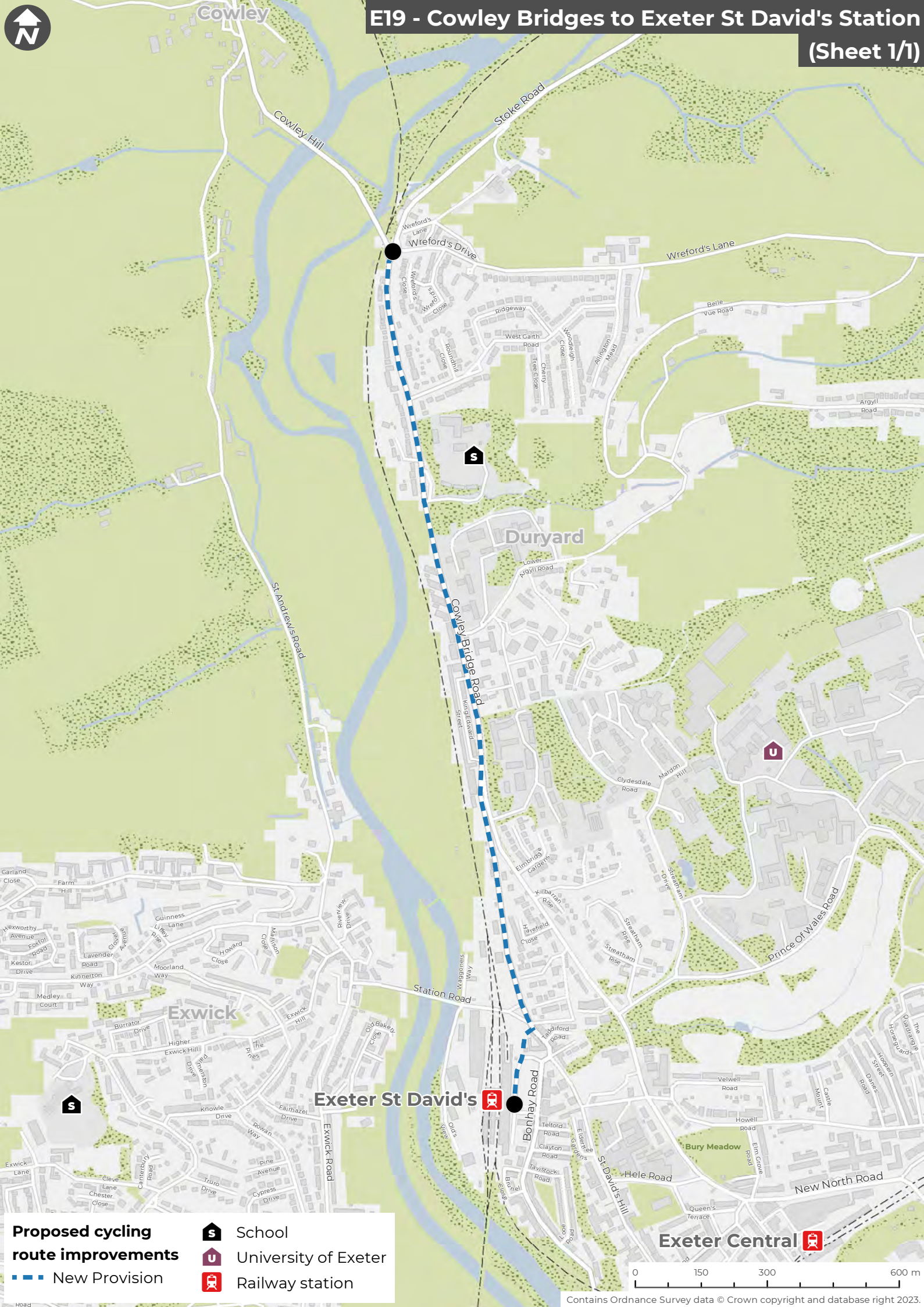
- Segregated; New Provision; Shared
- Quiet route

E18 - Exwick Heights to Exeter St David's Station (Sheet 1/1)

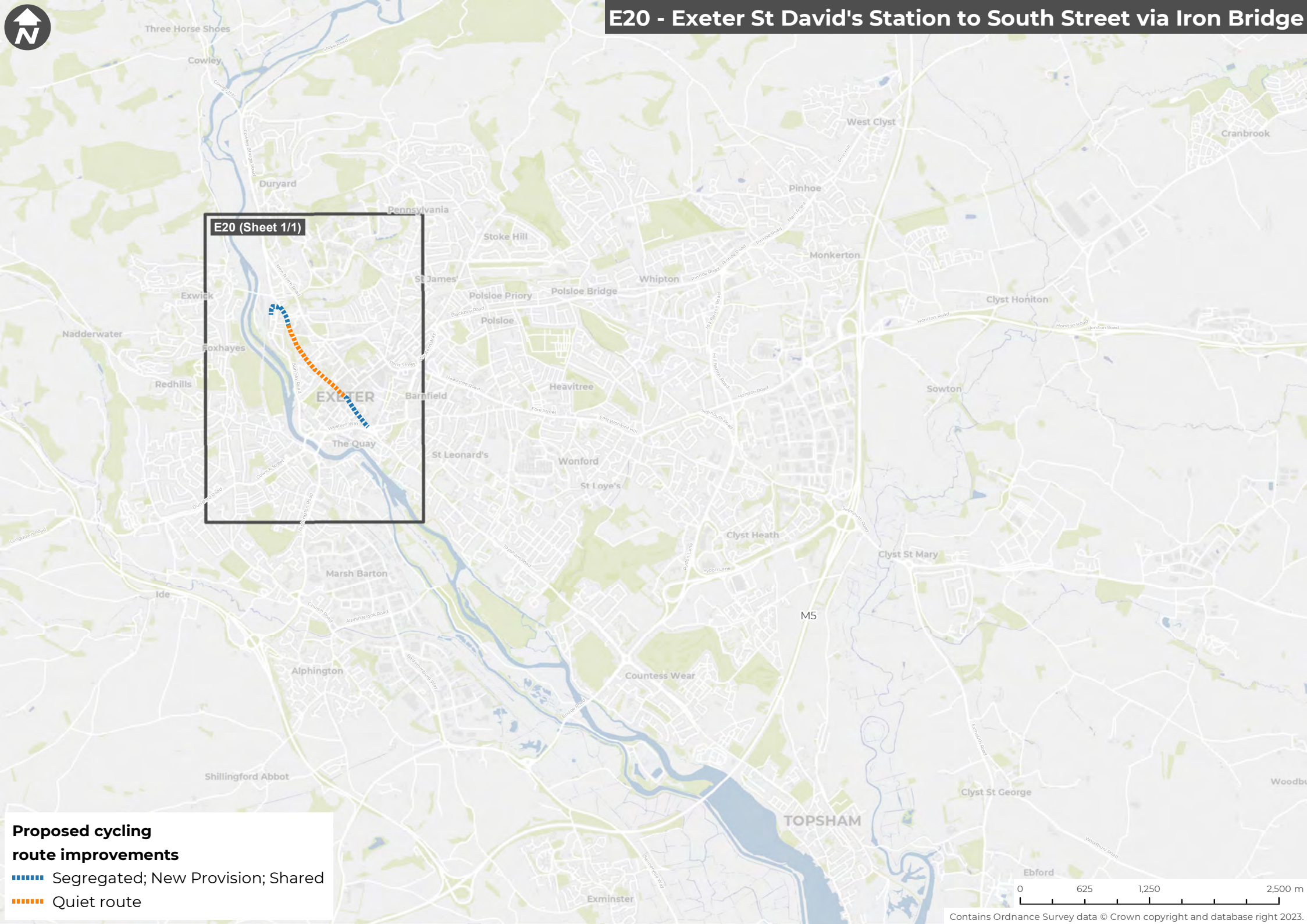
E19 - Cowley Bridges to Exeter St David's Station



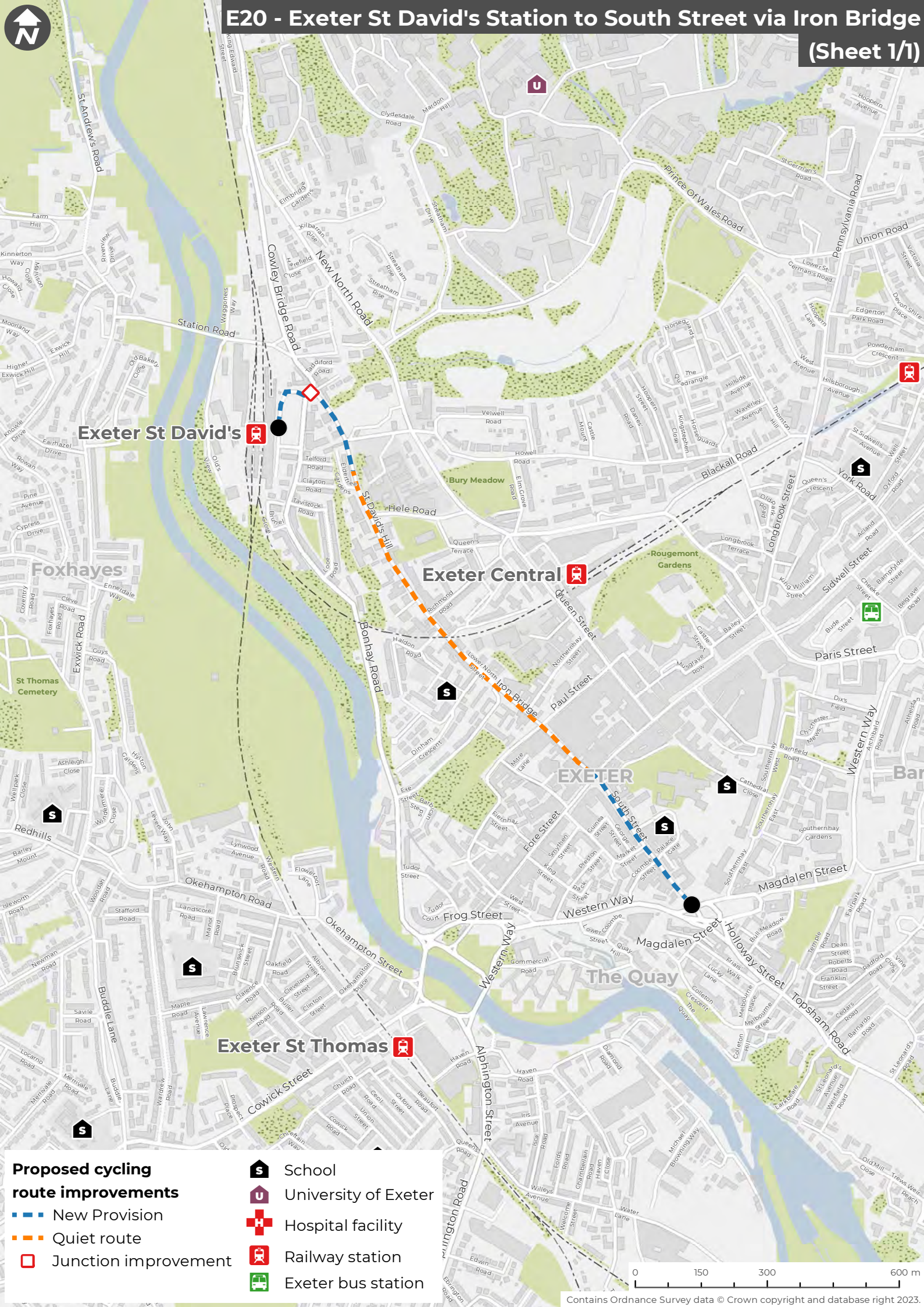
E19 - Cowley Bridges to Exeter St David's Station (Sheet 1/1)



E20 - Exeter St David's Station to South Street via Iron Bridge



E20 - Exeter St David's Station to South Street via Iron Bridge (Sheet 1/1)



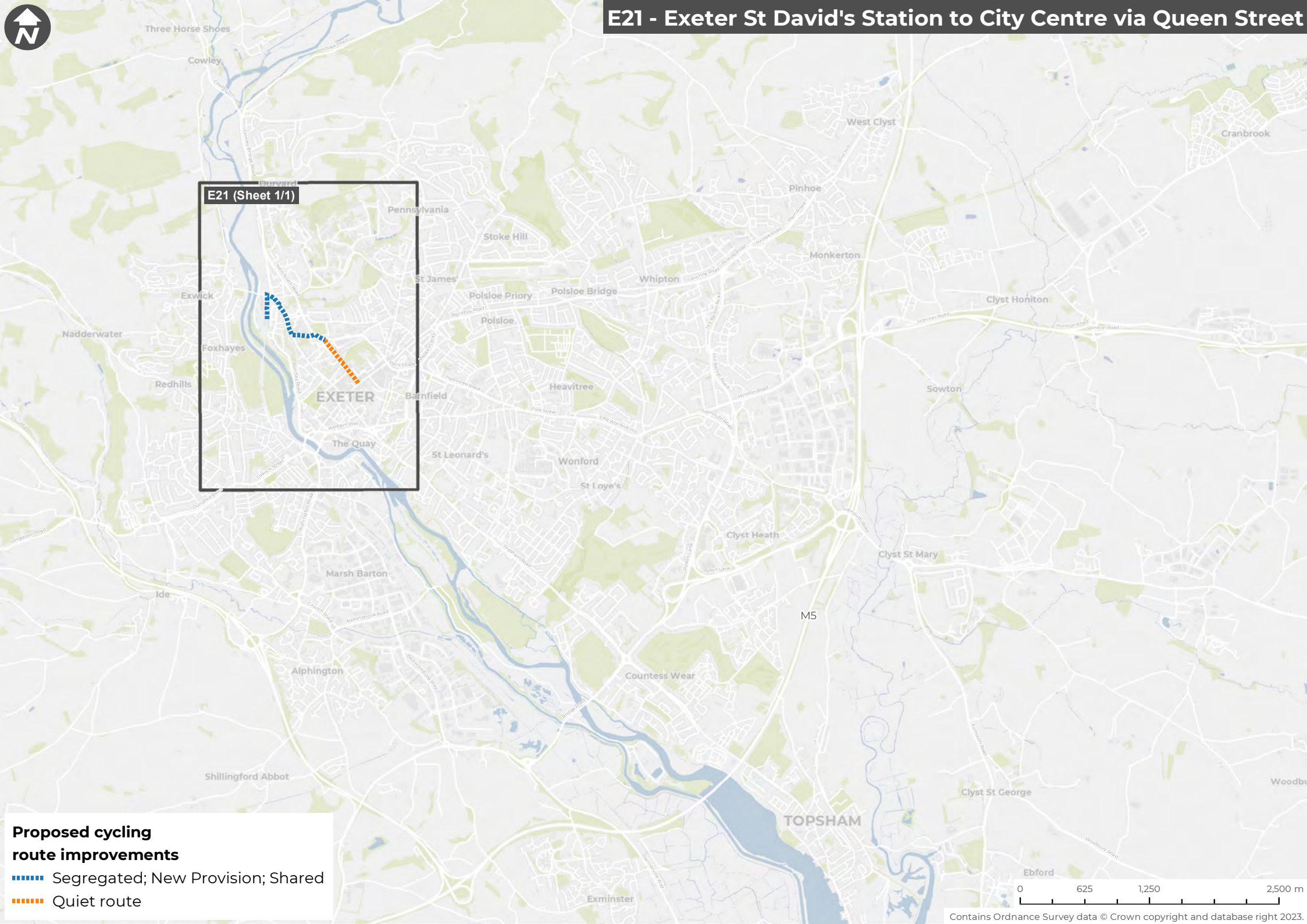
Proposed cycling route improvements

- New Provision
- Quiet route
- Junction improvement

- School
- University of Exeter
- Hospital facility
- Railway station
- Exeter bus station

0 150 300 600 m

E21 - Exeter St David's Station to City Centre via Queen Street

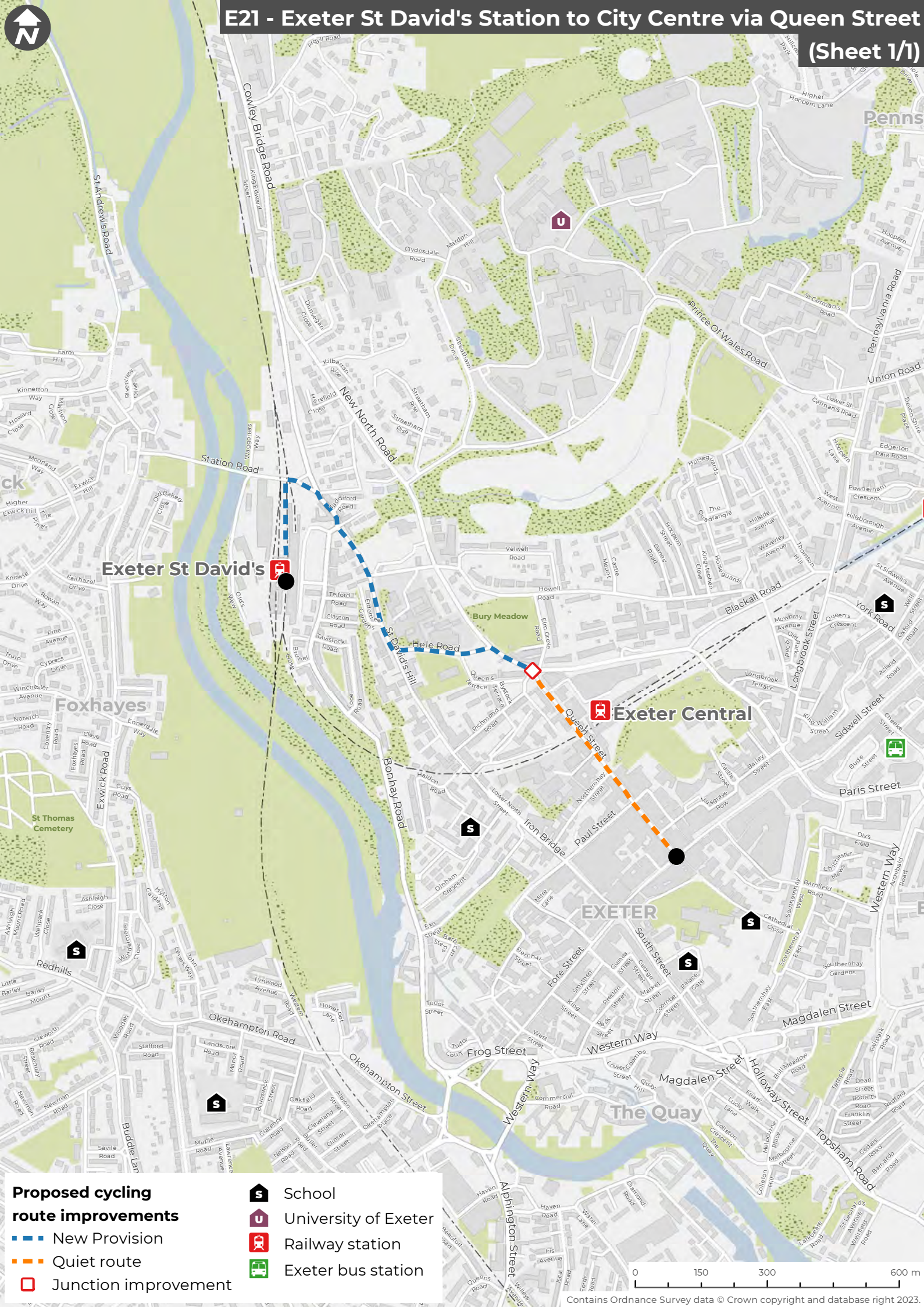


Proposed cycling route improvements

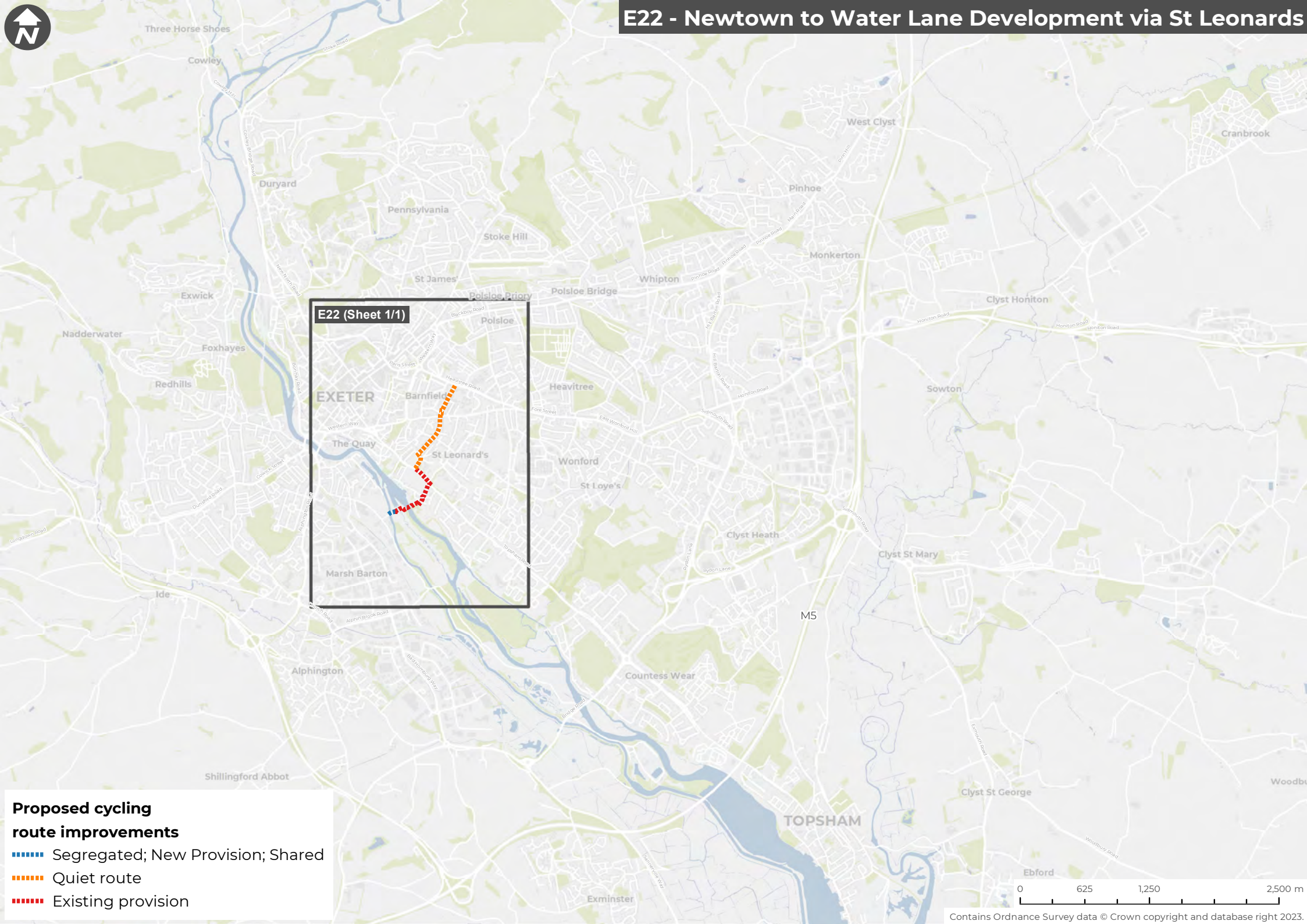
- Segregated; New Provision; Shared
- Quiet route

0 625 1,250 2,500 m

E21 - Exeter St David's Station to City Centre via Queen Street (Sheet 1/1)



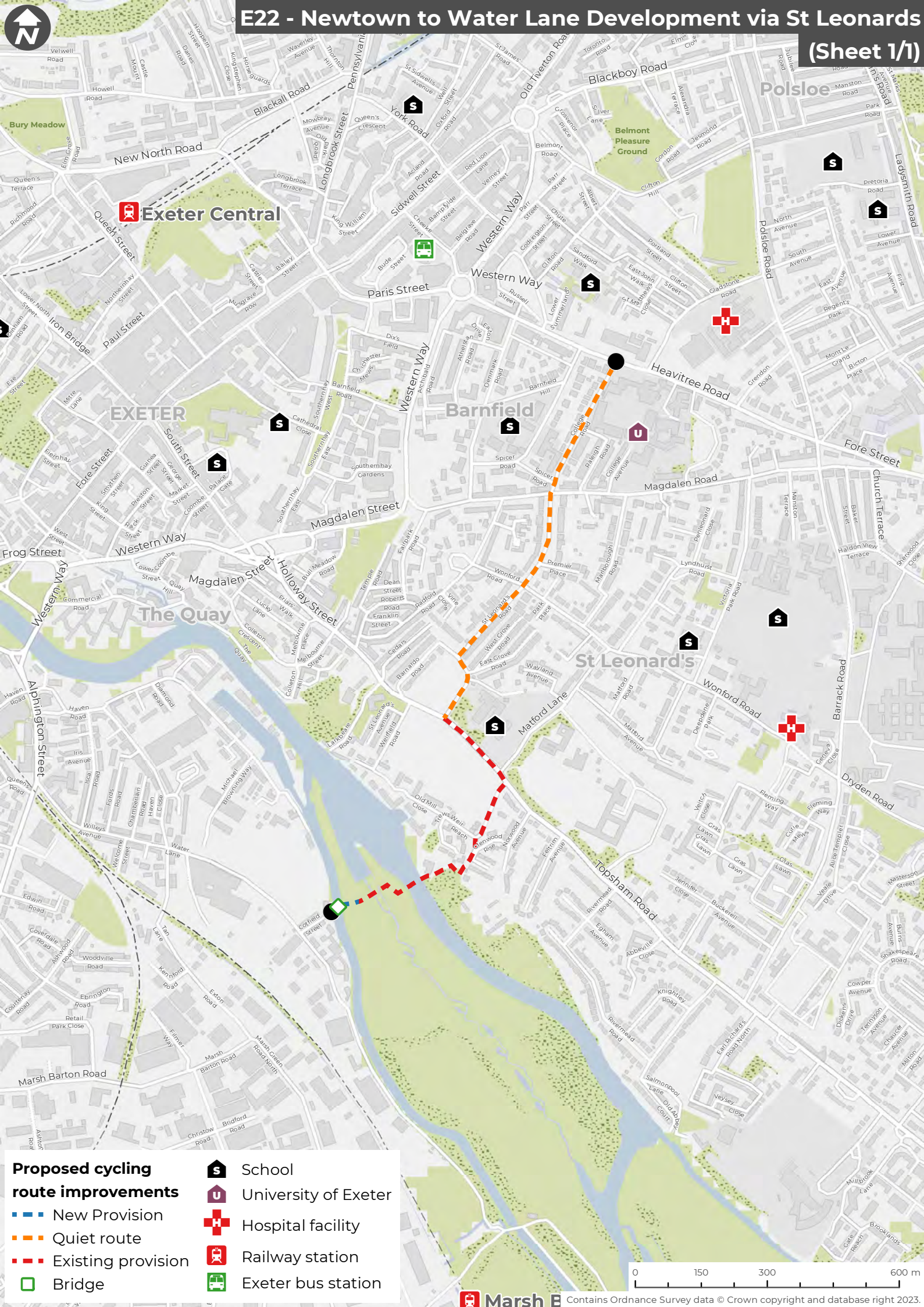
E22 - Newtown to Water Lane Development via St Leonards



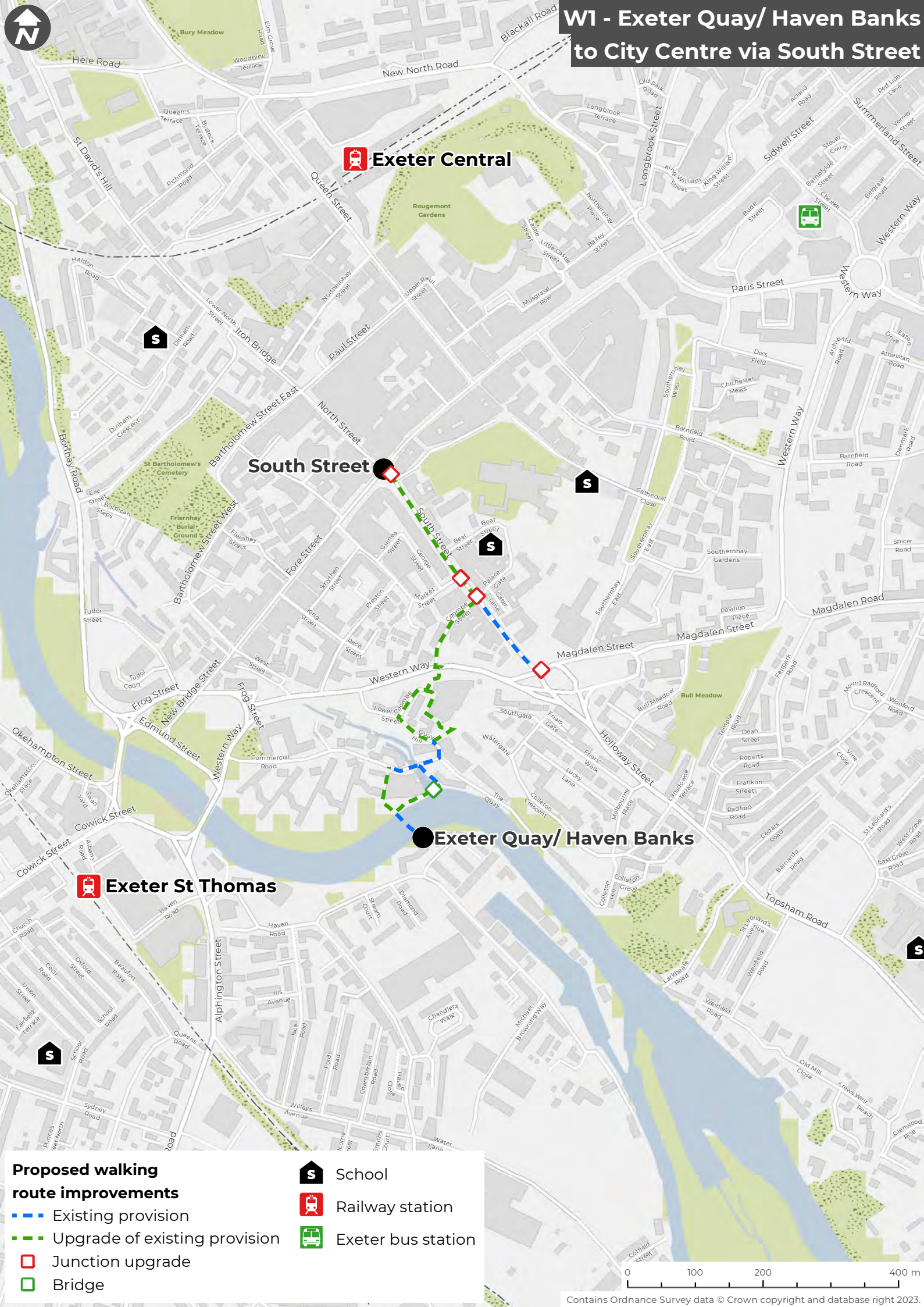
Proposed cycling route improvements

- Segregated; New Provision; Shared
- Quiet route
- Existing provision

E22 - Newtown to Water Lane Development via St Leonards (Sheet 1/1)



Appendix 2 – All walking route maps.


W1 - Exeter Quay/ Haven Banks to City Centre via South Street
Exeter Central
South Street
Exeter Quay/ Haven Banks
Exeter St Thomas
Proposed walking route improvements
Existing provision
Upgrade of existing provision
Junction upgrade
Bridge
School
Railway station
Exeter bus station
0
100
200
400 m
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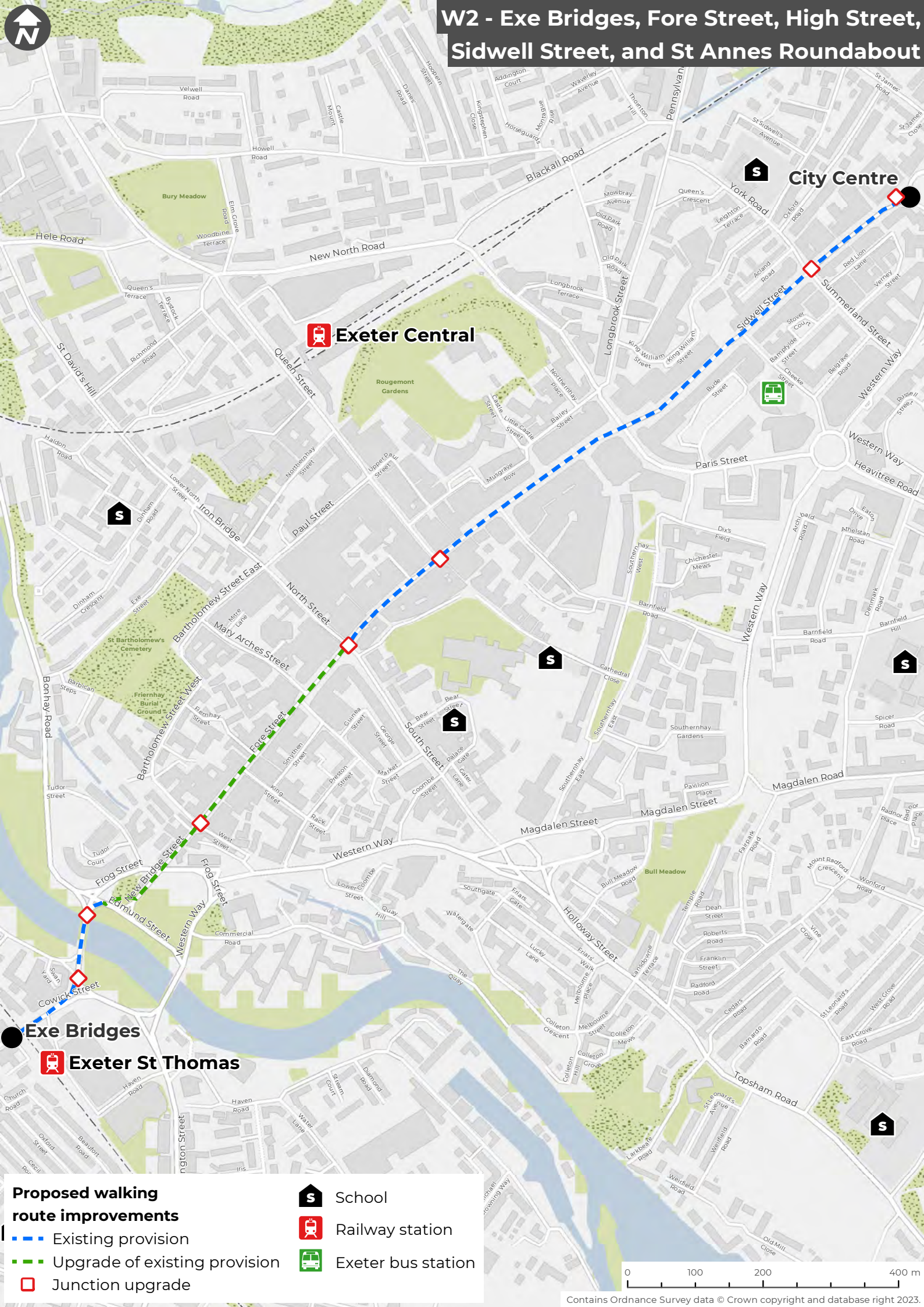
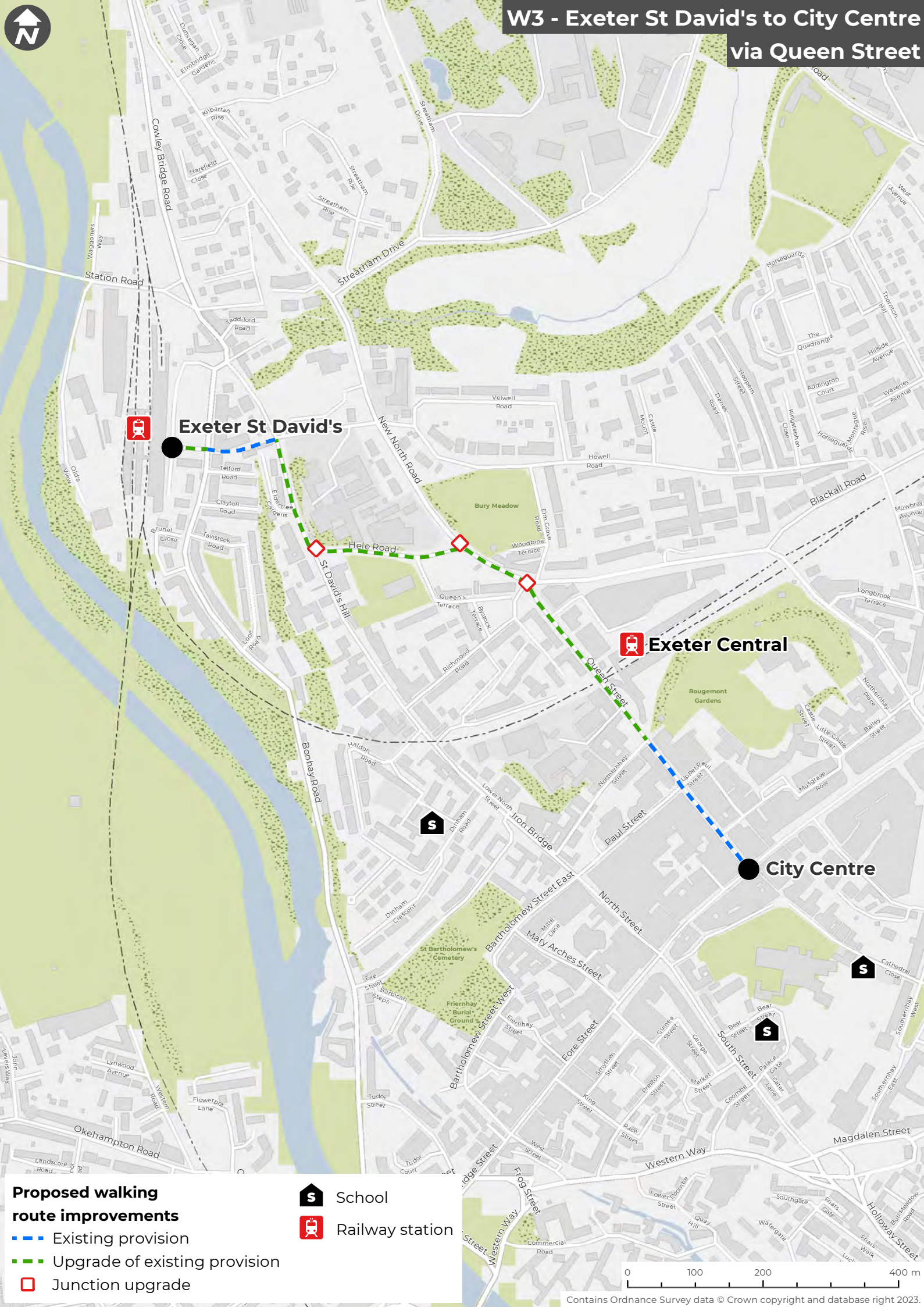
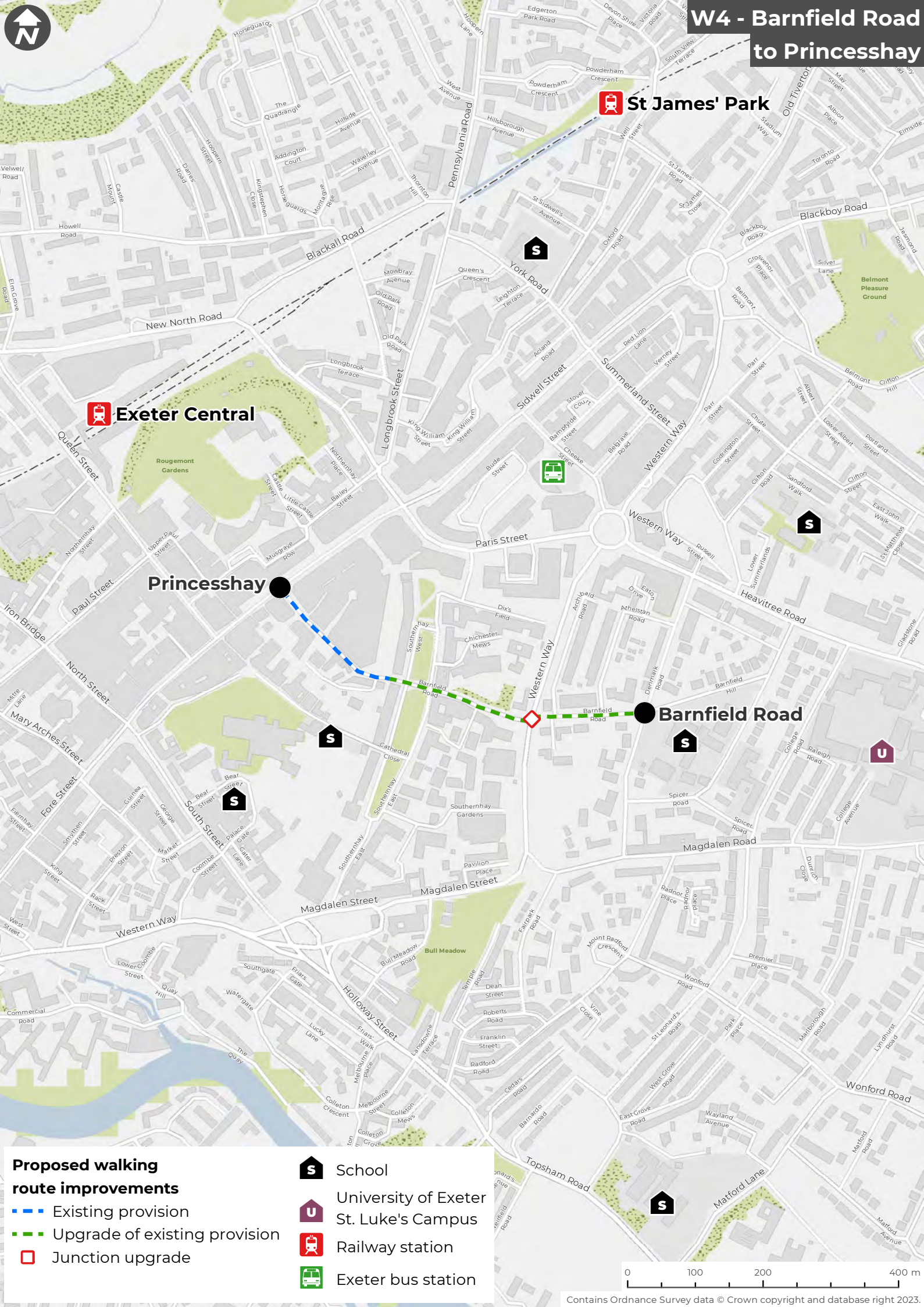
W2 - Exe Bridges, Fore Street, High Street, Sidwell Street, and St Annes Roundabout




W3 - Exeter St David's to City Centre via Queen Street
Exeter St David's
Exeter Central
City Centre
Hele Road
Queen Street
Station Road
Streatham Drive
New North Road
Blackall Road
Bonhay Road
Iron Bridge
Paul Street
North Street
Bartholomew Street East
Bartholomew Street West
Mary Arches Street
Fore Street
South Street
Western Way
Okehampton Road
Magdalen Street
Holloway Street
Cowley Bridge Road
St David's Hill
Rougemont Gardens
Bury Meadow
St Bartholomew's Cemetery
Friernhay Burial Ground
Proposed walking route improvements
Existing provision
Upgrade of existing provision
Junction upgrade
School
Railway station
0
100
200
400 m
Contains Ordnance Survey data © Crown copyright and database right 2023.


W4 - Barnfield Road to Princesshay
St James' Park
Exeter Central
Princesshay
Barnfield Road
Proposed walking route improvements
Existing provision
Upgrade of existing provision
Junction upgrade
School
University of Exeter St. Luke's Campus
Railway station
Exeter bus station
0
100
200
400 m
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W5 - New North Road and Longbrook Street to Paris Street