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# Theale Railway Station Upgrade Scheme

Full Business Case (May 2020)

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HM Government



Thames Valley Berkshire

LOCAL ENTERPRISE PARTNERSHIP



West Berkshire  
COUNCIL

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# 1. Executive Summary

## *Introduction*

- 1.1 This report sets out the business case for the Theale Railway Station Upgrade Scheme. This includes a series of enhancements to improve sustainable transport interchange, increase Park and Rail capacity and enhance customer facilities to help accommodate the forecast growth in rail travel.
- 1.2 The scheme will complement investment made by the wider Great Western electrification project and the proposed delivery by Network Rail of a new footbridge with the lifts via the “Access for All” initiative. The proposals are key to enabling Theale station to become a modern and attractive interchange that is able to meet the needs of all future rail passengers.

## *Strategic Case*

- 1.3 The project is being jointly promoted by West Berkshire Council (WBC) as local transport authority and Great Western Railway Limited as the train operating company operating services under the Great Western franchise.
- 1.4 The Theale Station project takes into account GWR forecasts for growth in rail travel and expected growth in population arising from housing development in Theale and the surrounding area. It also complements investment already made by the Great Western Electrification project and the new “Access for All” footbridge with lifts, which is due to be completed at the station by the end of 2022 and is a key component of the wider plan for the station. It also builds on investment previously made through the delivery of a new station building as part of the Reading Area Local Sustainable Transport Fund project in 2014. The scheme is therefore an important component in the jigsaw of many projects coming together to make Theale station a modern and attractive transport interchange.
- 1.5 Theale station lies just to the south of and a five minute walk from the centre of Theale. It sits alongside several industrial estates and is a short walk from the Arlington Business Park. The station is also within a comfortable cycling distance of the Calcot area, which can access Theale via a footbridge crossing of the M4.
- 1.6 The project takes into account development policies favouring sustainable modes within the National Planning Policy Framework and supports the key elements and infrastructure programme within the Thames Valley Berkshire Local Enterprise Partnership’s Strategic Economic Plan and new Berkshire Local Industrial Strategy. It has a strong fit with local planning and policy documents and GWR’s corporate priorities.
- 1.7 An Options Assessment Report (OAR) has been prepared which sets out key objectives and the strategic appraisal framework that was applied to review the various options developed for the project. The four objectives for the project are;
  - (i) Improve passenger interchange facilities and enhance the appearance of the station.

- (ii) To enable the station to be gateway for journeys into central Reading.
- (iii) To provide a fully accessible station that allows ease of access for all rail users.
- (iv) Deliver enhancements that minimise the carbon footprint of the station.

- 1.8 The new station building delivered as part of the Reading LSTF project has remained dormant since its installation due to uncertainties surrounding the new Network Rail footbridge. Now that there are firm dates for the delivery of the new bridge, this project will undertake the necessary works and modifications required to bring the new building into use in a timely manner. The new building will include a fully accessible ticket window, toilets, a waiting area and space for a retail unit.
- 1.9 The proposed interchange improvements will include the development of a forecourt area around the new station building which will provide a safe pedestrian route to the new footbridge, new secure and covered cycle parking, drop-off points and taxi ranks. New vehicle accesses will be provided on Brunel Road, with the upgrades at the station also being complemented by pedestrian and cycle improvements on Brunel Road and Station Road. The package of improvements will also enhance the public realm around the station by transforming the current rather drab feel to something more aesthetically appealing.
- 1.10 Another key component of the project will be to increase car parking capacity at the station by the provision of an upper deck. This will enable the station to accommodate the forecast passenger growth expected to occur and to allow the station to become a Park & Rail facility as envisaged in local transport strategies for the wider Reading area.

### ***Economic Case***

- 1.11 The Economic Case identifies and assesses the preferred option for the scheme against the Strategic Case objectives. It identifies the impacts of the preferred option and establishes the value for money in relation to securing a funding contribution as well as justifying the use of taxpayers' money in an efficient manner. The scheme benefits are presented as the Net Present Value (NPV – value of overall benefits) against scheme capital cost.
- 1.12 The proposed investment at the station, notably the additional car parking capacity, cycle parking and opening of the station ticket office is expected to provide direct benefits for station users, and indirect social benefits.
- 1.13 The assessment examines the benefits regarding improvement to station facilities, additional car and bicycle parking capacity with CCTV coverage, improved experience for station users with new station forecourt area with dedicated walking routes, and the commercial rental income through opening of the retail space within the new station building.

- 1.14 Additional car parking will be delivered through an upper deck on the existing car park. This assessment examines the impact on car park revenue arising from the additional 111 spaces being provided.
- 1.15 The results for the economic appraisal, consistent with DfT WebTAG demonstrate a Net Present Value (NPV) for the overall project of £1.12m and a Benefit to Cost Ratio (BCR) of **3.3:1**, which is considered to be **high**.

### *Financial Case*

- 1.16 Funding for the whole project will be provided through a number of sources in addition to the £4.0m provisionally allocated by the TVB LEP Local Growth Fund. Secured contributions amount to £6.137m, making an overall total of £10,137m for the wider investment scheme at Theale Station.
- 1.17 The secured contributions are a local private sector contribution from GWR and a local public sector contribution from WBC. The wider scheme costs also include an estimate of £4.0m for the new Network Rail “Access for All” footbridge with lifts.

### *Commercial Case*

- 1.18 The Commercial Case is based on strategic outcomes and outputs against which alternative procurement options are assessed. The outcomes for the preferred procurement strategies must include achieving cost certainty, minimising future preparation costs, obtain contractor experience and input to the construction programme, and obtain contractor input to risk management and appraisal (including mitigation).
- 1.19 The main bulk of the improvements are confined within the station lease area and will be commissioned by GWR. Elements relating to improvements on the local highway and footway networks will be commissioned separately by WBC. The Commercial Case outlines the approaches of both WBC and GWR who will manage their elements according to their own corporate processes and rules. For both organisations, the relevant procurement strategy and procedures are outlined as well as preferred payment mechanisms and pricing frameworks.

### *Management Case*

- 1.20 The Management Case has been developed to reflect the requirements outlined in the DfT’s guidance. It examines the proposed project planning, governance structure, risk management, communications and stakeholder management, benefits realisation, contingency and assurance.
- 1.21 The governance model indicates that as co-promoters, both WBC and GWR will respectively identify a Project Manager to manage their elements of the project. The Project Managers will report to their own senior Project Boards, who in turn will provide oversight, scrutiny and guidance, plus authorising expenditure. Day to day

running of the project will be overseen by a Project Team from WBC and GWR along with Network Rail as station landowner.

- 1.22 A project plan is also included which guides the project from the submission of this full business case and TVB LEP approval through to the construction and delivery of the main elements of the project. It contains key dates for the completion of the various elements of the project and is consistent with the agreed expenditure plan outlined in the Financial case.
- 1.23 WBC and GWR have demonstrable experience in developing and delivering projects related to their elements of the project. Both organisations have their own extensive project management methodologies to encompass all stages of project development.
- 1.24 A risk register for the project has been prepared by WBC and GWR, which contains an assessment for each identified risk with recommended mitigation measures. The register will be regularly reviewed throughout the duration of the project.
- 1.25 A robust monitoring and evaluation strategy has also been developed to accurately measure the success of the project, and to determine whether the main project objectives have been realised. Monitoring will collate data from a number of qualitative and quantitative sources and take place in three stages; immediately after construction, one-year post completion and five-year post completion.

### **Conclusion**

- 1.26 This Business Case presents the assessment and appraisal for a proposal to upgrade passenger interchange and facilities at Theale station. This is to be achieved in two distinct elements; improvements to passenger interchange and facilities, and increase car parking capacity, led by Great Western Railway and the walking and cycling access improvements led by West Berkshire Council.
- 1.27 These two strands of the project, plus the delivery of the Network Rail “Access for All” footbridge will make the station a modern and attractive interchange that is able to meet the needs of all future passengers.
- 1.28 The key elements of the proposal have undergone a series of assessments in line with Department for Transport WebTAG guidance to outline the strategic, economic, financial, commercial and management aspects of the projects.
- 1.29 Assessment and sensitivity tests undertaken as part of the Economic Case demonstrate that the scheme can achieve a Benefit/Cost Ratio of 3.3:1, indicating a **High** value for money. Therefore the scheme promoters are confident in putting this scheme forward for consideration by the Berkshire Local Transport Body for funding.



## 2. Introduction

- 2.1 This document presents the business case for a scheme focused around Theale Railway Station in West Berkshire. It forms part of a wider masterplan for the station incorporating the Network Rail scheme to deliver 'Access for All' (AfA) improvements through a new passenger bridge and lifts.
- 2.2 The subject of this business case is a scheme that seeks to significantly improve facilities at the station, routes to the station and the station's ability to provide a quality interchange supporting sustainable journey opportunities.
- 2.3 The joint scheme promoters are West Berkshire Council (WBC) and Great Western Railway (GWR). The scheme has been developed from the initial ideas to the final scheme that will be described in this business case as a result of monthly Project Team Meetings between WBC and GWR. The Project Team has also included representation from Network Rail acknowledging their important role in the planning and delivery of the scheme and the links with the AfA scheme.
- 2.4 Whilst WBC and GWR are very much working jointly to promote and plan this scheme, the delivery of the packages of improvements will be the responsibility of one organisation or the other. The majority of the scheme is the improvement to facilities within the station lease area which will be delivered by GWR. Supporting works outside the station on highway land delivering improved access routes to the station, including signage, will be the responsibility of WBC. As a result, the processes and policies of both organisations are included in this document, where necessary, within the commercial case and the management case.
- 2.5 Thames Valley Berkshire Local Enterprise Partnership (TVB LEP) has worked in collaboration with the six Berkshire unitary authorities and local businesses to produce its Strategic Economic Plan (SEP), published in March 2014. This sets out a statement of economic ambition and a vision for delivering sustainable economic growth. More recently, the TVB LEP has worked with its partners to develop a Berkshire Local Industrial Strategy (BLIS). The BLIS was locally approved and published in October 2019 and sets out the agreed priorities for local economic growth across the TVB LEP area for the period 2020 to 2030. The project at Theale will contribute to a number of objectives in the SEP and overarching priorities of the BLIS. These are outlined further in the strategic case.
- 2.6 The Theale Station Upgrade Scheme has been provisionally allocated £4.0 million of Local Growth Deal funding by the Berkshire Local Transport Body to contribute to the delivery of the proposals.
- 2.7 The Full Business Case has been prepared in accordance with Section 2.11.1 of the Department for Transport (DfT) Transport Appraisal Guidance (TAG), and is structured as follows;
  - Chapter 3 – Strategic Case – Sets out the case for change, what will be delivered and why the scheme is needed.
  - Chapter 4 – Economic Case – Presents an appraisal of the impacts and the resulting value for money of the scheme.

- Chapter 5 – Financial Case – Describes the affordability of the scheme, including the cost and funding arrangements.
- Chapter 6 – Commercial Case – Provides evidence of the commercial viability of the scheme and expected procurement strategy.
- Chapter 7 – Management Case – Sets out how the delivery of the project will be managed by WBC & GWR, including programme, risk and evaluation.

## 3. Strategic Case

### *Scheme Purpose*

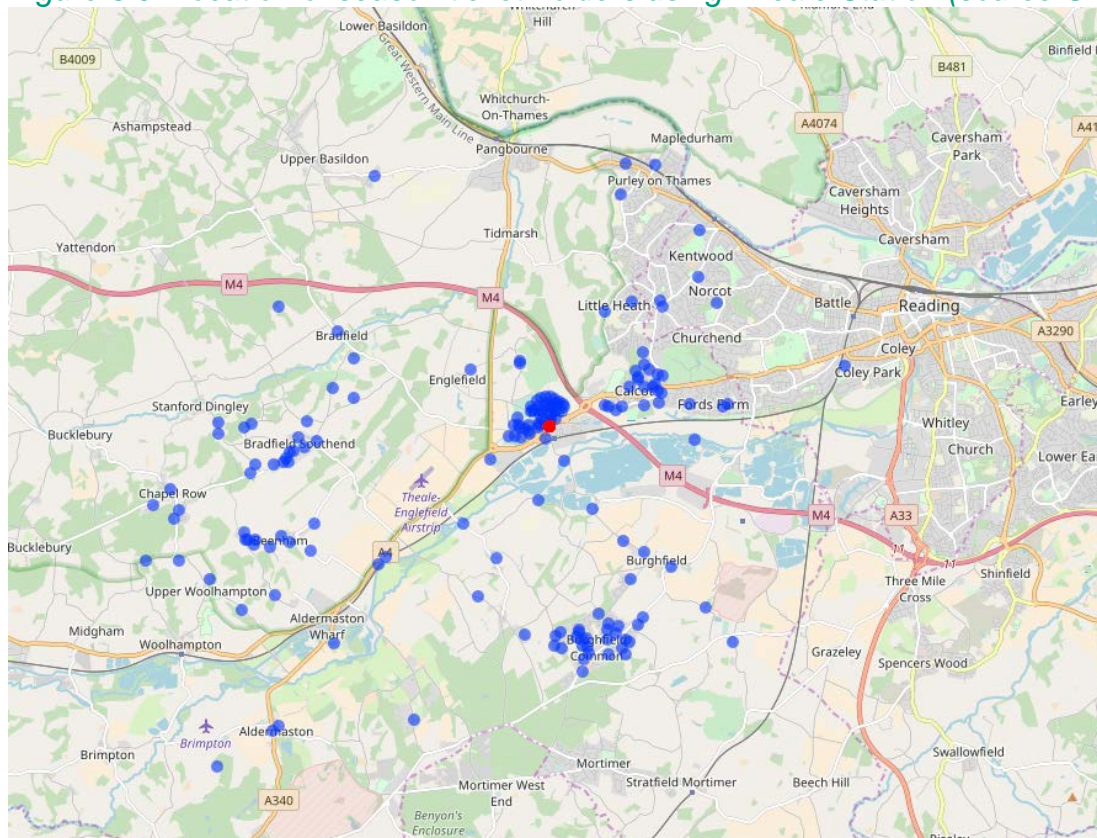
- 3.1 The Theale Station Upgrade Scheme is a joint project between GWR and WBC which seeks to provide enhancements at Theale Station to improve sustainable transport interchange, increase Park and Rail capacity and enhance customer facilities.
- 3.2 The scheme has been designed to be cognisant of the forecasted future growth in rail travel and in terms of the growth of population in the Theale and surrounding areas as a result of housing growth outlined in the West Berkshire Local Plan. It will also contribute to the transport strategy for the wider Reading urban area.
- 3.3 The design of the scheme reflects proposals for a new footbridge with lifts that is due to be delivered by Network Rail (NR) through the Department for Transport's "Access for All" fund, which is due to be completed on site by the end of 2022. This will allow Theale Station to be fully accessible for all rail users for the first time.
- 3.4 Theale has been identified as having the potential to become a strategic Park & Rail site, and a new station building building was provided on site by the Reading Urban Area Local Sustainable Transport Fund project in 2014. This building serves as the ticket office and has a waiting area, toilet facilities and area for a retail facility for refreshments, etc. However, due to uncertainties surrounding the delivery of the NR footbridge, the new building has remained dormant since installation.
- 3.5 Now that greater certainty has been provided in terms of timescales and delivery of the NR footbridge, it is now appropriate that the new building is enabled to become operational. This project seeks to undertake the necessary modifications to allow this to take place and provide improved interchange around the new buildings in the form of a new, attractive forecourt area.
- 3.6 The scheme will also provide opportunities to complement the recent investment made on the rail network, in particular the Great Western Electrification project and the addition of new electric and bi-mode trains offering faster journey times and greater seating capacity.
- 3.7 Therefore, the scheme seeks to bring together the above and enhance recent improvements to the wider rail network to deliver a package to make Theale Station a modern and attractive interchange that is able to meet the needs of all future rail passengers.

### *Area Description*

- 3.8 Theale Railway Station is located just to the south of the centre of Theale. From the village centre, the station is accessed along Station Road which goes under the A4 dual carriageway. The station sits alongside the industrial and business premises on Brunel Road, plus the Arlington Business Park and Arrowhead Industrial Estate lie within a short walk. The current ticket office is located close to the vehicle entrance to the station off Brunel Road, with the only access to the main platforms being steps down from the Station Road bridge.

- 3.9 Theale station is located on what is known as the Berks & Hants line between Reading and Newbury and has two main platforms for eastbound and westbound services respectfully. The station is managed by Great Western Railway (with Network Rail being the Landlord), under the Great Western Franchise.
- 3.10 The station is well-located to the centre of Theale, with the High Street being around 0.5 kilometres distant, and approximately a five minute walk from the station entrance via the Station Road underpass beneath the A4 dual carriageway, which has pavements on both sides of the road. The whole of the urban area of Theale is within 1.1 kilometres (15 minutes) walk of the station. Further afield, the retail area at Pincents Lane is around 1.8km and the residential areas of Calcot are around a 2-2.5km walk from the station, via the footbridge crossing the M4 just to the west of M4 Junction 12. The station also acts as a railhead for local communities in the Theale area, with passengers travelling to the station from surrounding rural communities and western parts of the Reading urban area. The catchment area for the station can be seen in Figure 3.0 below, which indicates the location of season ticket holders who travel from Theale.

*Figure 3.0: Location of season ticket holders using Theale Station (source GWR)*



- 3.11 In terms of accessibility by bicycle, the whole of Theale plus the areas of Calcot, Holybrook and Tilehurst on the western edge of the wider Reading urban area are within a 5km cycling distance to the station (which can be accessed by a new high quality cycle route along the A4 Bath Road and the M4 footbridge linking to Theale). Areas to the south of Theale lying within a 5km cycling distance of the station can access the station by the relatively lightly trafficked rural routes along Hangar Road.
- 3.12 At present, there are no regular bus services calling at Theale Station, with bus access to the station being constrained by a physical width restriction on Station

Road at the underpass beneath the A4. The nearest bus stops are located on Theale High Street, and are served by the Reading Buses JetBlack1 service which runs along the A4 corridor between Reading, Theale, Thatcham and Newbury. The stops are a 400m walk from the station entrance via Station Road.

- 3.13 The station car park is located on the north side of the station, providing 215 spaces (including 11 disabled bays). The car park is subject to parking charges, and is managed by APCOA on behalf of GWR. There is currently no provision for charging plug-in vehicles at the station. Cycle parking at the station is limited to five partially covered Sheffield stands and five key operated cycle lockers.
- 3.14 The current ticket office and ticket vending machine are located at the bottom of the steps leading to the Station Road overbridge. Other than waiting shelters on both platforms, passenger facilities at the station are limited. There are no customer toilets, station WiFi, retail provision/vending or taxi ranks.
- 3.15 The parish of Theale has a population of 2,939 (source: ONS mid-year population estimate 2016). Theale has been identified as a site for housing allocations in the current West Berkshire Local Plan (2006-2026) and referenced in the Housing Site Allocations Development Plan Document (DPD). Land between the A340 and The Green, Theale has been identified for up to 100 dwellings and would be around 1.4km walk or cycle from the station.
- 3.16 In addition, a further Local Plan allocated site at Calcot, between Dorking Way and the M4 would be around 2km walk or cycle from the station.
- 3.17 The station is also well-located to industrial estates and business parks (such as the Arlington Business Park), which are within an easy walk/cycle from the station. This can allow the station to assist in providing sustainable travel options for active workplace travel plans for local businesses. In addition, the close proximity of the station to this concentration of businesses enables rail to be a popular option for business travel. By accessing the station on foot or by cycle employees will be able to make a sustainable business trip and make good use of their time on the train free from the responsibility of driving to their destination.
- 3.18 A new station building was provided towards the eastern end of the station car park as part of the Reading Urban Area LSTF project in 2014 in order for the station to become a strategic Park and Rail site. The new building is located towards the eastern end of the car park area so as to be in close proximity to the new NR footbridge. However, this has remained unopened since its installation due to uncertainties surrounding the timescales for the delivery of the NR footbridge as this is a key component for the station upgrade project.

## ***Policy Context***

### ***National Transport Policies***

- 3.19 The National Planning Policy Framework (NPPF) 2019 sets out the Government's planning policies for England and how these are to be applied. The NPPF contains a specific focus towards promoting sustainable transport, including an objective that "*opportunities to promote walking, cycling and public transport use are identified and pursued*". It also considers that applications for development should "*give*



*priority first to pedestrian and cycle movements; and second to facilitating access to high quality public transport*". This project has been designed to take account of these.

- 3.20 The DFT's "Cycling and Walking Investment Strategy 2017" sets out the Government's ambition for cycling and walking in England. It considers that cycling and walking should be a normal part of everyday life for shorter journeys, including travelling to railway stations. The project will contribute to this by providing clear pedestrian linkages to Theale and the surrounding employment areas and by providing a new secure cycle hub at the station.
- 3.21 The Government's Rail Strategy, Connecting People: A Strategic Vision for Rail (November 2017) outlines the national strategic vision for railways and the action needed to make it a reality. This includes taking measures to "*secure the maximum benefit for passengers from railway stations*", and as part of the Government's vision for rail, seeking upgrades of stations as part of wider committed network upgrades. The strategy also recognises the need for rail stations to work so that passengers can switch between rail and other modes in order to minimise the effort that people need to make to organise and undertake a rail journey. The combination of this project's improved access to and better facilities at the station accords well with this strategy.
- 3.22 The DfT's "Road to Zero" Strategy, published July 2018, outlines the Government's long-term strategy to transition to zero emission road transport. This will include a massive expansion of green infrastructure, such as increased provision of electric vehicle charging points. The strategy recognises that railway station car parks are places where large numbers of vehicles are left for several hours and so hold an opportunity for more destination charge points. This project recognises this link by introducing four electric chargepoints at the station as part of the enhanced car parking, as well as providing passive provision to allow easy retro-fitting of additional chargepoints when future demand dictates.

#### *Local Policies*

- 3.23 The project will contribute to the delivery of the following elements of the Thames Valley Berkshire Local Enterprise Partnership's (TVB LEP) [Strategic Economic Plan \(SEP\)](#);

**SEP Objective 3 – Labour Supply: Address congestion / Bring forward planned housing:** The scheme seeks to relieve congestion on key routes into central Reading by promoting the use of the station as a park & rail facility. The scheme also brings benefits to employment sites in the vicinity of the station by providing an enhanced facility for encouraging sustainable travel opportunities for staff and visitors.

**SEP Objective 6 – Functioning Towns: Infrastructure within towns / Infrastructure between towns:** The scheme will improve connectivity to London and the economic heart of the Thames Valley. Investment in the park and rail offer will support access to local employment centres.

**SEP Implementation Plan Package 6: Access to London Heathrow / Access to London via motorway and rail:** The scheme directly links to the benefits being realised with the recent electrification of the Berks & Hants line, by providing faster

journey times to Reading and London, and to Newbury. These linkages will be further enhanced with the delivery of wider strategic rail projects such as the commencement of Elizabeth Line services and the construction of the Western Rail Access to Heathrow scheme.

**SEP Implementation Plan Package 2: Enhancing urban connectivity:** The scheme will improve connectivity and increase travel choice for residents and businesses in Theale. The upgrade facilities and interchange at the station afforded by the project, combined with the recent electrification and provision of new rolling stock, will boost connectivity between Theale and key centres in the TVB area, most notably Reading and Newbury.

- 3.24 TVB LEP is currently developing a [Berkshire Local Industrial Strategy \(BLIS\)](#). A locally approved version of the BLIS was published in October 2019, which sets out the LEP's priorities for local economic growth across the TVB LEP area for the period 2020 to 2030. The project will contribute to the following BLIS overarching priorities;

**Overarching Priority: Making Berkshire an inclusive area where aspirations can be realised**

- ...by accelerating a shift to more sustainable transport modes, both generally and in relation to the planning of new development (Infrastructure Action A)

The station upgrade project with the associated provision of the NR footbridge with lifts will deliver a fully accessible, safe and appealing station which will encourage opportunities for travel for all those seeking to use it.

**Overarching Priority: Ensuring that economic growth contributes positively to Berkshire's environmental performance, recognising the need to respond to the climate crisis**

- ...by accelerating a shift to more sustainable transport modes (Infrastructure Action A)
- ...by supporting the delivery of the TVB Energy Strategy (Infrastructure Action E)
- ...by securing better access to Heathrow Airport by sustainable travel modes (Infrastructure Action F).

The project will encourage sustainable travel by promoting rail travel as an attractive alternative to car trips along the M4 (including to Heathrow), and by acting as a park and rail facility for journeys into central Reading. Improvements to interchange facilities at the station, in particular the provision of the new cycle hub will encourage sustainable journeys to be made to/from the station.

Measures will be incorporated into the scheme with the aim of making the station carbon neutral and to reduce the wider carbon impact of the rail industry. This will include the introduction of electric vehicle charging points (and further passive provision), with other measures such as photo-voltaic panels considered as appropriate. It is also prudent that the station is able to readily respond to the market as demand for electric vehicle charging evolves over time.

### **Overarching Priority: Building places and a supportive infrastructure**

- ...by supporting the role of Berkshire's towns as cultural and economic hubs (Place Action A)

3.25 The project will strongly contribute to the overarching vision statement for the [West Berkshire Local Transport Plan 2011-2026 \(LTP\)](#):

*"To deliver effective transport solutions for all by increasing choice and minimising congestion"*

3.26 The LTP also contains a set of transport goals to help guide the development of policy, schemes and projects, which the project will deliver:

- *To improve travel choice and encourage sustainable travel;*
- *To support the economy and quality of life by minimising congestion and improving reliability on West Berkshire's transport networks;*
- *To maintain, make best use of and improve West Berkshire's transport networks for all modes of travel;*
- *To improve access to services and facilities;*
- *To improve and promote opportunities for healthy and safe travel;*
- *To minimise energy consumption and the impact of all forms of travel on the environment*

3.27 *Integrated Transport and Accessibility – We will work with our partners to provide the smoothest door-to-door journeys possible. We will improve the integration of different modes of transport and ensure our services are accessible to all, as well as reducing carbon emissions on our network by helping our customers make more sustainable travel choices. To do this we will:*

- *Promote the investment in more bike storage facilities at our stations*
- *Help our customers to make more sustainable, door-to-door, travel choices, by identifying opportunities to enhance our 'green travel' and integrated transport options*
- *Support the door-to-door journey needs of our customers, by working with local authorities to increase car parking at key locations*

### **Drivers for Change**

3.28 The rail industry, WBC and the local community have held long aspirations to improve passenger facilities and access to the main platforms at Theale station. We are now in a period where delivery of some these improvements is expected to occur over the course of the next few years (e.g. provision of the new station footbridge with lifts through the DfT's "Access for All" initiative due to be delivered by the end of September 2022). Figure 3.1 shows the existing layout of the station area which highlights some of the issues that are the drivers for change. A broad summary of the main issues facing passengers using Theale station is set out in Table 3.0 with further discussion to follow.



Figure 3.1: Existing layout of Theale Station

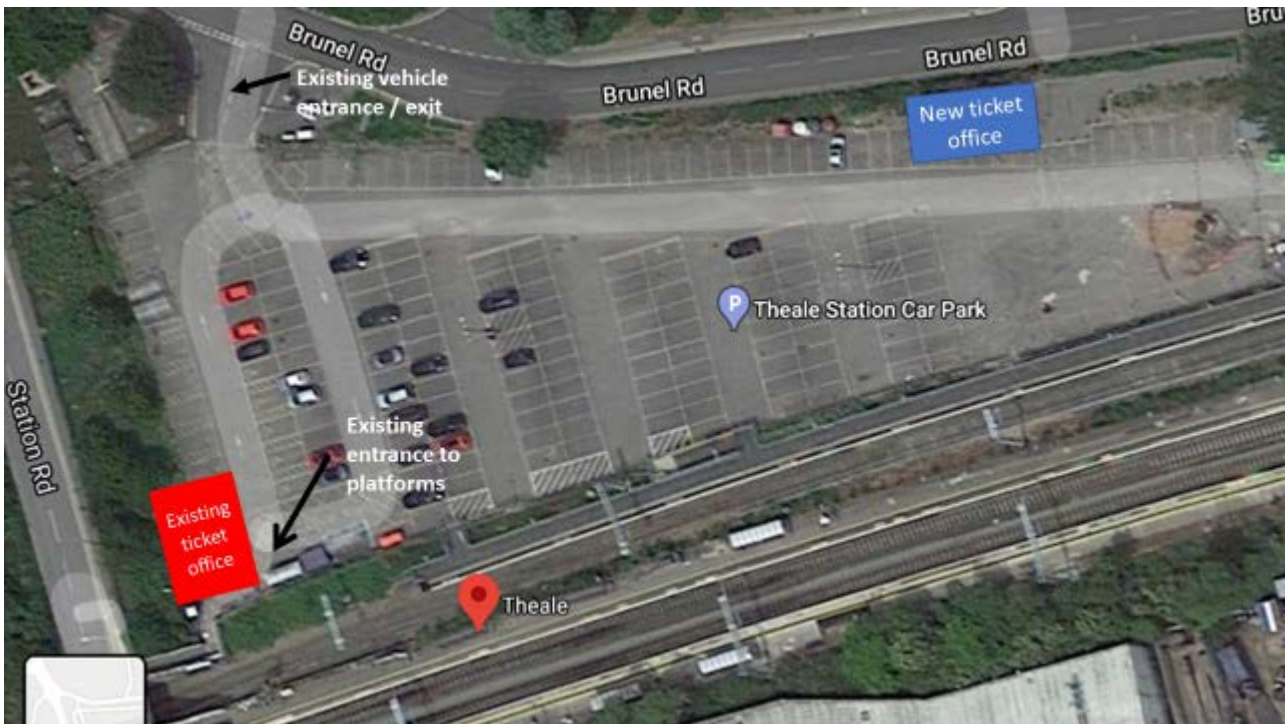


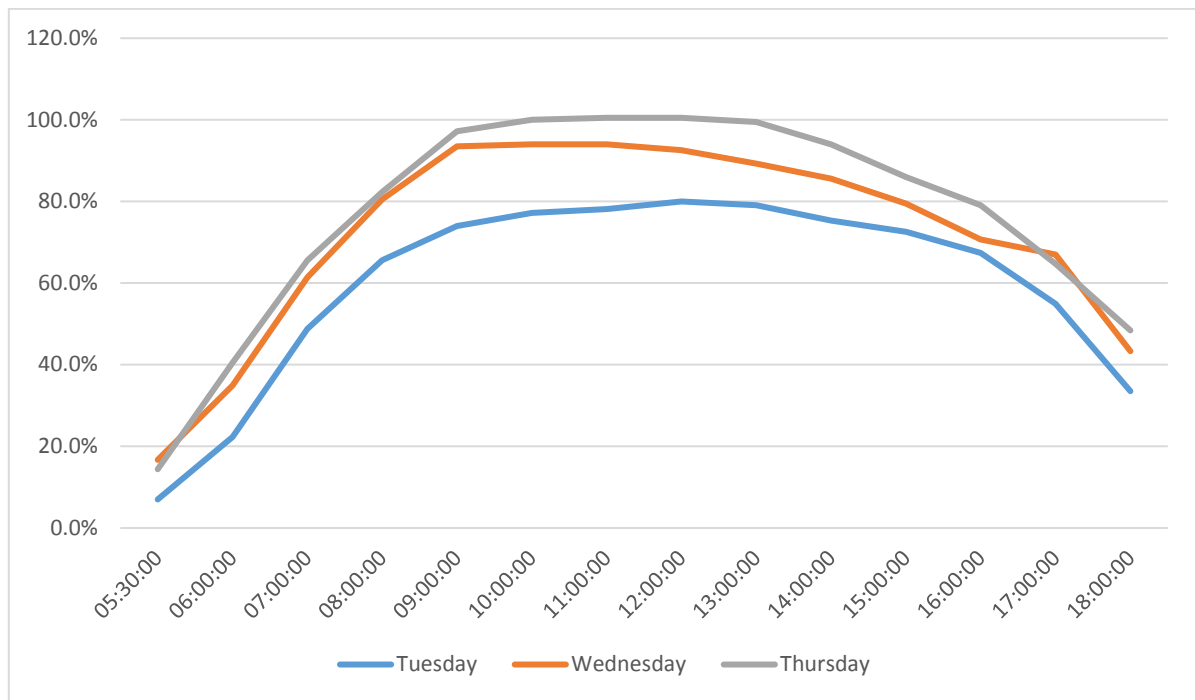
Table 3.0 – Theale Railway Station Issues and Opportunities

Issue Identified	Opportunities for addressing the issue
<b>No step-free access</b> to main station platforms	This is to be addressed by the provision of the DfT-funded “Access for All” footbridge, delivered by Network Rail, with lifts to be constructed towards the eastern edge of the station platforms by end of September 2022. The upgrade project will complement this investment by ensuring that there are corresponding improvements within the station area to ensure safe access to and from the new footbridge.
<b>Car parking</b> at station currently at capacity	The addition of an upper car parking deck to the existing car parking will provide an additional 111 car parking spaces to accommodate future demand. This will include 5% of spaces to be allocated for blue badge holders, short-stay parking and some spaces for charging of plug-in vehicles.
No secure <b>cycle parking</b> at the station likely to dissuade passengers from choosing to cycle to the station.	A new 100 space covered cycle parking area, covered by CCTV, is to be provided as part of the project. This will provide significantly improved and secure cycle storage.
<b>New Station Building</b> provided for the station has yet to become operational and following a diversity impact assessment, now requires modifications to be compliant with current rail industry standards.	A new station building was provided by the Reading LSTF project in 2014, however this was not brought into use due to uncertainties surrounding the timescales for delivery of the NR footbridge and has remained dormant since. This proposed project will undertake the minor modifications and remedial works necessary to allow the new station building to

	comply with current rail industry standards. This will allow the new building to be brought into use.
Lack of <b>passenger facilities</b> at the station	The works required to bring the new station building into use will result in improved passenger facilities, such as DDA compliant ticket office, new ticket vending machines, free station Wi-Fi, toilets and retail provision. A new forecourt area adjacent to the new station building will provide a safe, convenient drop-off area. The scheme will also have a positive impact through improving the aesthetic quality and public realm in and around the station.
New "Access for All" station footbridge and opening of new station building <b>will be out of position</b> in terms of the current station entrance and circulation.	A station forecourt will be provided outside the new station building, with a vehicle entrance and exit onto Brunel Road. This will provide access to clearly marked drop-off points, taxi rank and bus stands.  The new forecourt area will enhance the public realm around the new station building. It will incorporate an accessible, demarked safe walking route connecting the station building with the "Access for All" footbridge. This will include compliant lighting (along with station CCTV) to help provide greater assurance in terms of personal safety.
Ability of the station to be an effective " <b>park and rail</b> " facility.	Provision of increased car parking and better quality passenger facilities at the station, along with direction signage on the local highway network will enable the station to fulfil the role as a park and rail site as identified in WBC and Reading BC local transport policies.
No facilities for <b>charging of plug-in vehicles</b> in the station car park.	Project will look to provide four electric vehicle charging points, plus passive provision for further points to satisfy future demand, as part of works to increase car parking at the station.

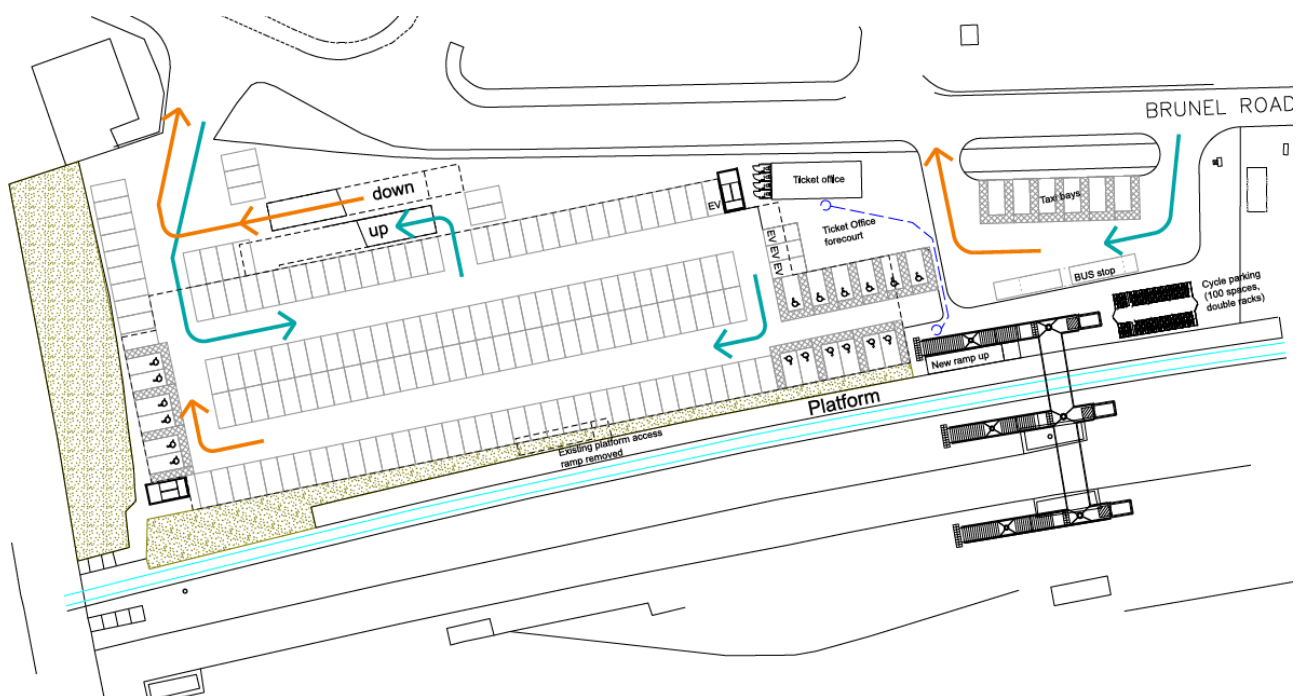
3.29 When the idea of improving the facilities at Theale Station and promoting it as a more significant transport interchange was discussed about 8 years ago (in relation to the Local Sustainable Transport Fund), there was spare capacity in the station car park. Since then this capacity has been steadily utilised and the car park is now operating close to or at capacity during the week. In order to check and get the most up to date picture of the use of the car park and any existing capacity, a mid-week survey was undertaken at the end of January 2020. The results of this are shown in Figure 3.2 where it can be seen that the use of the car park consistently grows to nearly its peak by 10am. The car park reached 80% of its capacity on Tuesday, 94% on Wednesday and was full on Thursday and just creeping over the official capacity of the car park with some people finding other places to park outside of marked bays. As well as seeking modal shift for journeys to the station, additional car parking capacity is an important element in the scheme in order to accommodate the forecast growth in rail.

Figure 3.2: Theale Railway Station - Mid-week car park occupancy levels (late January 2020)



3.30 In order to accommodate the need for additional parking and to address the points outlined in the issues and opportunities table (Table 3.0), a scheme has been developed for the main station area. Figure 3.3 shows an indication of the proposed new layout. The car parking capacity issue is proposed to be addressed by adding a deck to the car park. This is not shown in Figure 3.3 but can be seen in Appendix A where the full plan is provided.

Figure 3.3: Proposed indicative new layout for Theale Station area



- 3.31 The Office of Road and Rail recorded the 2017/18 entries and exits at Theale Station as 482,304. Since 2009/10 demand at Theale Station has grown on average by 1.2% per year. Growth forecasts prepared by GWR for the next 10 years anticipates a 17% increase in journeys from Theale. This equates to over 10,200 additional journeys.
- 3.32 The proposed project includes opportunities to improve cycle parking through the development of a new 100-space covered and secure cycle parking area close to the new station building and “Access for All” footbridge. The quantum of spaces has been derived using the DfT’s “Propensity to Cycle” tool. Additionally, information from the recent bid for cycle-rail funding at Newbury Railway Station has been used as a benchmark for future uplift and observations of the current occupancy levels at Theale, indicating that the current parking is often full with a waiting list for the cycle parking lockers.
- 3.33 Modelling assessments based on passenger demand forecasts have also been undertaken to determine the number of car parking spaces that would be required for the station. The modal choice assessment undertaken has predicted that by 2026, there would be around an additional 102 car journeys using the station in the AM peak. The design option for an upper car park deck on the existing car park would provide around additional 111 car parking spaces, which would comfortably accommodate the predicted additional demand, providing a further 10-years’ worth of capacity until around 2032. A minimum of 5% disabled parking spaces will be provided as per DDA requirements.
- 3.34 The predicted increase in car trips has also been modelled using the Council’s Strategic Transport Model to assess the impact of the additional car trips on the local highway network. Given current occupancy rates, it has been assumed that these additional trips would arrive during the AM peak and leave during the PM peak. Outputs from the model demonstrates that there will be very little impact on the surrounding highway network in either the AM or PM peak.
- 3.35 The provision of electric vehicle charge points (plus passive infrastructure) in the station car park has been guided by experience in other station projects undertaken elsewhere by GWR (such as the new Warwickshire Parkway Station). The standard financial recharging mechanism for customers used by GWR will be applied.
- 3.36 The majority of the project is confined within the station lease area, with delivery being therefore the responsibility of the rail industry. However, there will be a need to provide new vehicle entry and exit points on Brunel Road to enable access to/from the new station forecourt area, and to ensure that there is safe access to the local area to help encourage greater levels of walking and cycling journeys to be made to/from the station. In addition to the issues and opportunities at the station identified in Table 3.0 above, WBC as local highway authority has considered measures to encourage greater walking and cycling to/from the station along with the potential impact on the local highway network arising from the increased number of vehicle journeys as a result of the provision of additional car parking spaces.

### *The Impact of No Change*

- 3.37 If a “do-nothing” approach were to be adopted, it would mean that the provision and quality of passenger facilities at Theale station would remain relatively unaltered. This would include preventing the new station building from being brought into use. As a result, the poor level of interchange facilities at the station would remain, leading to a poor customer experience.
- 3.38 In addition to this, if no corresponding investment is made at the station following the installation of the new “Access for All” footbridge, the current ticket office, ticket vending machine, blue badge spaces and cycle parking would be located remotely from the new passenger and step-free access to the main platforms. As a result, users would be required to traverse from the ticket purchase point across the car park without a clearly marked pedestrian route to gain access the main station platforms. This could pose a safety risk through potentially bringing pedestrians into conflict with vehicles manoeuvring in the car park. The pedestrian route would also be limited by suitable lighting, further impacting on the perception of safety for passengers.
- 3.39 Whilst the new “Access for All” footbridge would provide step-free access to the main station platforms, other customer facilities at the station would still not be compliant for passengers with disabilities. The current ticket office does not comply with current DDA standards, meaning that wheelchair users would be unable to purchase tickets before making their journey.
- 3.40 A “do-nothing” approach would also mean that there would be no enlargement of the car parking provision at the station. Car parking at the station is already close to or at capacity, which would be unable to accommodate increased demand arising from predicted passenger growth. Furthermore, there is no on-street parking on the local highway network in the vicinity of the station. A severe constraint on car parking capacity would negate the ability of the station to be an effective “Park and Rail” facility as part of the transport strategy for the wider Reading area.
- 3.41 “Do-nothing” would undermine the major investment made by the rail industry in the electrification of the Berks & Hants line to Newbury and the introduction of new rolling stock. The poor level of passenger facilities at the station may prevent the local community and businesses from capitalising on the enhanced travel opportunities offered by the new train services. In addition, a poor quality and tired looking station would not be in-keeping with the vision of neighbouring business tenants, particularly so for the Arlington Business Park.
- 3.42 In addition, there would be no improvement to the existing cycle parking at the station, which are limited, only partially sheltered and not covered by CCTV. The existing facilities would also be out of position in terms of the new “Access for All” footbridge. A lack of secure and covered cycle parking is likely to limit sustainable travel choices by deterring rail users from choosing to cycle to/from the station.

## Scheme Objectives

3.43 Four objectives have been defined to directly address the key problems and issues identified by the project, and to guide the desired outputs. These have been developed to align with local policies of WBC, the Thames Valley Berkshire Local Enterprise Partnership's Strategic Economic Plan and new Berkshire Local Industrial Strategy and the Government's national planning and transport policies. Table 3.1 below provides an indication as to the desired outputs and outcomes for each of the four objectives;

*Table 3.1 – Objectives and Desired Outcomes for the Theale Upgrade Project*

Objective	Desired Outputs & Outcomes
<p>1) Improve passenger interchange facilities and enhance the appearance of the station.</p>	<p><i>Outputs</i></p> <ul style="list-style-type: none"> <li>• Undertake works to allow new station building to be brought into use and to ensure that it is compliant with current rail industry standards.</li> <li>• Provision of new retail facility at the station.</li> <li>• Delivery of new covered, secure cycling parking for up to 100 bicycles with improved CCTV.</li> <li>• Improved interchange with drop-off zones and clear, safe walking/cycling routes through the station car park.</li> <li>• Delivery of improved local walking and cycling routes to the station, including improvements to Wayfinding signing.</li> </ul> <p><i>Outcomes</i></p> <ul style="list-style-type: none"> <li>• Opening of new ticket office building (including retail space).</li> <li>• Increase number of walking and cycling trips to the station.</li> <li>• Improved safety on Brunel Road and Station Road, particularly for pedestrians and cyclists</li> <li>• Sustain local business parks by providing a more attractive public realm and user-friendly station.</li> <li>• Achieve improved passenger satisfaction levels with station facilities.</li> </ul>
<p>2) To enable the station to be a gateway for journeys to central Reading.</p>	<p><i>Outputs</i></p> <ul style="list-style-type: none"> <li>• Provision of increased level of car parking spaces to accommodate increased demand.</li> </ul> <p><i>Outcomes</i></p> <ul style="list-style-type: none"> <li>• To enable the station to become a Park and Rail facility for access to regional service centres.</li> <li>• Assist in relieving congestion on the M4 and key routes into central Reading.</li> </ul>
<p>3) To provide a fully accessible station that allows ease of access for all rail users.</p>	<p><i>Outputs</i></p> <ul style="list-style-type: none"> <li>• Modifications to new ticket office to include facilities for disabled customers.</li> <li>• Provision of a clearer, safer walking/cycling route through station car park to/from new station building and new "Access for All" footbridge.</li> <li>• Enhanced station lighting to current standards.</li> </ul> <p><i>Outcomes</i></p> <ul style="list-style-type: none"> <li>• Enables station to become fully accessible for all rail users.</li> </ul>



	<ul style="list-style-type: none"> <li>• Improved safety through better segregation of vulnerable users.</li> <li>• Greater assurance for rail users in terms of personal safety.</li> </ul>
4) Deliver enhancements that minimise the carbon footprint of the station.	<p><i>Outputs</i></p> <ul style="list-style-type: none"> <li>• Provision of infrastructure (including passive provision) to support the charging of plug-in vehicles.</li> <li>• Incorporation of solar panels as part of the improvements to the station.</li> </ul> <p><i>Outcomes</i></p> <ul style="list-style-type: none"> <li>• Rail users with plug-in vehicles will be able to charge their vehicles at the station.</li> <li>• Enables the station to become part of the UK's ULEV charging network in line with the "Road to Zero" strategy.</li> <li>• Contribute to reducing the carbon footprint of the station and the wider rail industry.</li> </ul>

### Scope of Project

3.44 The station upgrade project will principally occur on land within the designated GWR station lease area. This will be led by GWR, who have identified a package of improvements to upgrade Theale station that will allow the station to meet the needs of future rail passengers. These improvements will tie in with the new "Access for All" footbridge to be delivered by Network Rail, which will be located towards the eastern end of the station. The key elements of the station upgrade are indicated on the plan at Appendix A and will include;

- *Undertaking necessary modifications to enable the new station building to be compliant with current rail industry standards, thus allowing it to be brought into operational use.*
- *Amendments to the existing (unused) station building to bring it up to current standards (especially provision of accessible ticket window), provide an extra ticket vending machine and final works to make the building operational and bring it into use. The other facilities that will be made available by bringing the building into use are washroom facilities and retail space.*
- *Provision of new 100 space covered, secure cycle parking*
- *Creation of new forecourt area, including taxi ranks and drop-off points, around new station building with new vehicular entry and exit points to/from Brunel Road.*
- *Provision of clearly marked and lit safe walking route between new station building and new "Access for All" footbridge.*
- *Expanding car park capacity by around 111 spaces through provision of additional car parking deck on existing car park<sup>1</sup>.*
- *Provision of four electric vehicle charging points, plus passive provision for further points to allow easier retrofitting.*

<sup>1</sup> A Diversity Impact Assessment (DIA) is currently being developed in line with railway industry standards on accessibility. This review is ongoing and lift access to the upper deck of the car park may be required, although all of the blue badge spaces will be located at ground floor level. If lift access is required within the car park, this will be within the railway industry's responsibility to provide and will not be subject to TVB LEP funding.

- *Enabling the station to become carbon neutral through energy efficient measures, such as provision of photovoltaic panels*

3.45 In addition to the works within the station area, there will be a need to undertake some improvements to the local footway and highway networks to ensure safe walking, cycling and vehicle access to the station from the local area. Delivery of these improvements would be the responsibility of WBC as local highway authority. Designs have been developed by WBC for these improvements and these are included in Appendix B. The designs include:

- Improved crossing points through widened footways and crossing areas, additional tactile paving and increased size of pedestrian refuge areas.
- Measures to reduce vehicle speeds and provide pedestrian priority
- Improved lighting and suggested public art project to improve a current unattractive area underneath the A4 bridge on Station Road.

3.46 In addition, the wayfinding signage for Theale village and Theale Station and the links in between will need to be updated.

### **Measures for Success**

3.47 Successful delivery against the scheme objectives will be monitored as part of the post construction scheme evaluation, which are further outlined in the Management Case. This will include regular reporting to TVB LEP regarding progress during the delivery stage and post-implementation evaluation requirements.

- *The number of cycle spaces provided in the new covered cycle parking area and the level of utilisation*
- *Car park utilisation, including usage data for electric vehicle charging points in new station car park*
- *Short stay and drop-off activity will be monitored to ensure that arrangements around the new station building and entrance onto Brunel Road is effective and able to meet demand*
- *Level of reported crime at the station, particularly in relation to cycle thefts*
- *Accident data on Brunel Road and Station Road in the vicinity of Theale station*
- *Qualitative assessment of passenger satisfaction levels of the new station building and facilities*
- *Carbon performance of the station and energy consumption*

### **Constraints**

3.48 There are several constraints for the project, which are outlined and considered in the risk assessment discussed further in the Management Case and shown in Appendix C, which also outlines how each risk will be mitigated.



## *Interdependencies*

- 3.49 A comprehensive list of risks has been prepared by GWR and WBC as part of the Management Case (see Chapter 7). The successful delivery of all elements of this project is dependent on these risks either not arising or being sufficiently mitigated so that delivery remains unaffected.
- 3.50 A total of 15 risks have been identified. There are certain risks for which the likelihood of their occurring, or their impact is so low that the scheme cannot be defined as truly dependent upon their negation.
- 3.51 For the purposes of this Business Case, therefore, it is sufficient to summarise the key areas of risk / dependency. The key interdependencies can be summarised as follows:
- *Gaining approval from the Berkshire Local Transport Body in a timely manner*
  - *Cost escalation*
  - *Coordination of programme delivery with the delivery of the Network Rail funded “Access for All” footbridge to be located towards the eastern end of the station platforms*
  - *Impact of COVID-19 guidelines and how the pandemic situation develops over the coming months*
- 3.52 The delivery of the NR “Access for All” footbridge is a key interdependency for the project. The location of the footbridge has been a key determinant in the siting of the new station building towards the eastern end of the car park, and is a focus for the reconfiguration and the ticket office opening. Current timescales provided by NR indicate that delivery of the new footbridge is due to be completed by the end of 2022. The Management Case provides further details regarding how these timescales will influence the delivery of the Theale Station upgrade scheme.
- 3.53 The station upgrade project is wholly confined within the existing station lease area, so there are no requirements for additional land outside GWR’s control. The pedestrian improvements and safety works are mainly confined to the local highway network of West Berkshire Council. A small sliver of land is ideally required for some footway widening. The land in question is owned by a public body. The Council has considerable experience in negotiating such land purchases and will progress this as soon as funding is secured. GWR will need to go through the standard Network Rail approvals process, although the project has already been discussed between GWR and NR at a Property and Route Manager Surgery. Although the station upgrade works are considered Permitted Development, discussions have also been held with the Council’s Development Management Team. In terms of this project, it is considered that NR footbridge and the new highway accesses from Brunel Road may require a Prior Approvals application. The application to consider the design of the proposed footbridge would be the responsibility of NR and GWR and Transport Officers at the Council would be able to assist in providing the context for the bridge. Approval of the highway accesses will be pursued jointly by the scheme promoters as soon as funding is secured.
- 3.54 The development of a detailed risk log, and the time already devoted to mitigating some of these risks (e.g. through strong partnership working with other organisations (such as Network Rail), consultation with relevant professional officers and engagement with stakeholders), means that the risk to scheme delivery

is relatively low. The project team will, however, continue to monitor these risks / interdependencies throughout the scheme development to ensure smooth delivery against the programme. The details of the risk that COVID-19 may present to the delivery programme are currently unknown. The guidance from Government will be closely observed and plans put in place to deal with any impacts arising from the pandemic. This is a risk that the project team will watch closely and on which regular updates to the LEP will be provided.

### **Stakeholders**

3.55 The project has been developed and will be delivered jointly by Great Western Railway and West Berkshire Council as joint promoters of the scheme.

3.56 The following have been identified as stakeholders for the project;

- *Network Rail*
- *Reading Borough Council*
- *Arlington Business Park and other local businesses*
- *Theale Parish Council*

### **Option Development**

3.57 A separate Option Assessment Report (OAR) was prepared in December 2019 and sits alongside this Full Business Case for assessment by TVB LEP. A summary of the options considered and the outcomes of the assessment contained in the OAR are discussed in this section.

3.58 For completeness, the options include a “Do-Nothing” scenario which assumes that the current level of provision and quality of facilities at the station would remain relatively unaltered. This would not affect the delivery of the Network Rail footbridge and lifts which will be provided as part of the DfT’s “Access for All” project.

3.59 A summary of the options reviewed for the Theale Station Upgrade project are shown in Table 3.2 below;

*Table 3.2 – Options Reviewed for Theale Station Upgrade Project*

<b>Scenario</b>	<b>Description</b>
Do-Nothing	Assumes no work undertaken at the station other than that associated with the separate Network Rail “Access for All” project.
Do Minimum	Undertake the basic minimum required modification works to bring the LSTF-funded station building into use and using the existing access point from Brunel Road.
Do Medium	Bring the new station building into use with modifications to make it fully accessible

	along with the NR “Access for All” footbridge, plus interchange improvements in the station car park.
Do Enhanced	As above, but also provides additional car parking capacity (with EV charging points photovoltaic panels), a passenger interchange and forecourt area outside the new station building, improvements to local walking and cycling routes, an update to wayfinding signage and necessary modification works to the new station building and interchange from Brunel Road.

3.60 The Option Assessment Report concluded that, although more complex in terms of delivery, the options appraisal process suggested that “Do Enhanced” upgrade option should be taken forward for to the next stage for consideration. In terms of taking this option forward, it is recognised that liaison with Network Rail will be required in terms of delivery timescales for the new “Access for All” footbridge and lifts, and is outlined further in the Management Case.

## 4. Economic Case

### Introduction

- 4.1 The Economic Case identifies and assesses the impacts of the proposed scheme and establishes its value for money for the purposes of securing a funding contribution and justifying the use of taxpayers' money in an efficient manner.
- 4.2 This chapter has been developed to follow HM Treasury's 'Green Book' and the relevant Transport Appraisal Guidance (TAG) from the Department for Transport (DfT).

### The Scheme

- 4.3 The scheme for the Theale station improvements and interchange enhancements project has been developed to address the issues identified with the current station facilities and to align with the scheme objectives and the strategic priorities for infrastructure development set out in the Thames Valley Berkshire Local Enterprise Partnership Strategic Economic Plan.
- 4.4 The proposals will enable the vacant station building to be enhanced and brought into operation, improve interchange facilities for cyclists, pedestrians, rail replacement bus users and those dropped-off/picked-up and additionally, there will be improved cycle routes to the station. Increased car park capacity will also be introduced, as well as the provision of charging points for plug-in vehicles (plus passive infrastructure to allow for easier retrofitting) and the installation of photovoltaic panels to help minimise the carbon footprint of the station.
- 4.5 The proposals will be integrated with the delivery of a new footbridge under Network Rail's 'Access for All' fund, which will provide step-free platform access at the eastern end of the existing station car park and shift the desire line of station users. The benefits and costs associated with delivering the footbridge are not included within this Economic Case.

### Assumptions

- 4.6 The economic appraisal has been undertaken in line with the following guidance:
- DfT TAG, May 2018
  - HM Treasury's The Green Book (2018)
  - Passenger Demand Forecasting Handbook v6.0
- 4.7 The main appraisal assumptions are set out in in Table 4.1.

Table 4.1 – Economic Appraisal Assumptions

Criteria	Assumption	Source
Discount rate	3.5% 0-30 years	HMT's Green Book
Opening year	2022	GWR
Base year	2010	DfT Base Year

Criteria	Assumption	Source
Appraisal period	30 years of benefits for station benefits 20 years for cycle parking benefits	HMT's Green Book - Asset life of main scheme components
Market price adjustment factor	1.19	May 2019 TAG Databook (A1.3.1)
2017/18 Theale station entries and exits	482,304	Office of Rail and Road (ORR)
Rail demand growth	11.03% - 2017 to 2018 2.46% - 2018 to 2019 7.18% - 2019 to 2020 1.85% - 2020 to 2021 1.49% - 2021 to 2022 1.44% - 2022 to 2023 1.28% - 2023 to 2024 1.09% - 2024 to 2025 1.36% - 2025 to 2026 1.33% - 2026 to 2027 1.12% - 2027 to 2028 1.11% - 2028 to 2029 1.20% - 2029 to 2030 1.00% p.a. thereafter to 2040	To 2030 GWR's forecast growth From 2031 to 2040 – assumption
Demand cap	20 years for rail users	May 2018 TAG A5.3.1
Rail farebox revenue growth	No real growth	May 2019 TAG Databook (A5.3.1)
Car park yield growth	No real growth	May 2019 TAG Databook (A5.3.1)
Journey purpose split	Business: 11% Commuter: 54% Other: 34%	May 2019 TAG Databook (A5.3.2)
MECs rates	Other Urban	May 2019 TAG Databook (A5.4.2)
Capital cost inflation	BCIS	April 2020 RICS
Optimism bias on Capital costs	51%	In line with Green Book: station buildings

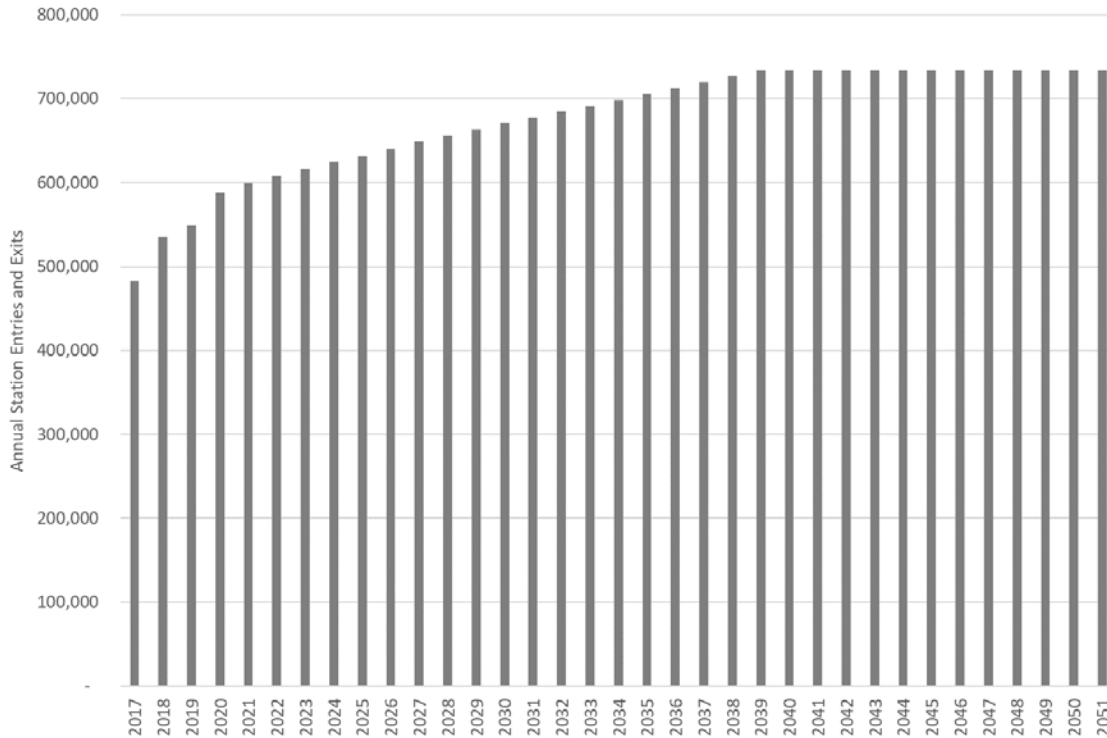
Criteria	Assumption	Source
Optimism bias on Operating & Maintenance costs	51%	Consistent with capital cost OB
Cost spend profile	20% in 2020 80% in 2021	Project Programme

### **Theale Rail Station Demand**

- 4.8 The Office of Rail and Road (ORR) recorded the 2017/18 station entries and exits at Theale station as 482,304. 40% of this demand were season ticket holders, and the remaining 60% split between Full and Reduced ticket holders. Since 2009/10 station demand at Theale has grown on average by 1.2% per year<sup>2</sup>. GWR forecast growth in rail demand at Theale station over the next 10 years as a result of the impact of electrification, population and employment growth. For the purposes of this appraisal it is assumed that growth will slow from 2030 compared to the shorter term forecasts, but will continue to grow at 1.0% per year until 2040. No demand growth after 2040 has been assumed. Figure 1-1 shows the forecast rail passenger growth at Theale station based on these background growth forecasts.
- 4.9 During the preparation of this Business Case, station entries and exit data for 2018/19 have been released by ORR. However the majority of electrification works were undertaken in this year, resulting in line closures during the working week and for extended periods. Therefore, it is not deemed appropriate to use this data in the appraisal, and the 2017/18 station demand figures have been used alongside GWR's forecast growth from this year. Given the longer term impact of electrification, population and employment growth, it is assumed that the aggregate growth forecasts remain appropriate.

<sup>2</sup> ORR Station Usage Timeseries Data

Figure 4.1: Theale Station Demand Forecast



4.10 Table 4.2 below shows the top 10 flows at Theale station based on passenger journeys. It can be seen that three of the top ten flows are to/from London. The remaining top flows are between Theale and the surrounding key cities and towns.

Table 4.2: Top 10 Passenger Flows at Theale Station

Rank	Flow
1	London (zones 1 – 6) – Theale
2	Reading – Theale
3	London (terminals) – Theale
4	Newbury – Theale
5	Thatcham – Theale
6	Oxford – Theale
7	Maidenhead – Theale
8	Newbury Racecourse – Theale
9	Slough – Theale
10	London (zone 1) – Theale

## Scheme Benefits

- 4.11 The investment at Theale station, notably the additional car park capacity, cycle parking and opening of the station ticket office, is expected to provide direct benefits for station users, and indirect social benefits. These have been assessed consistent with DfT's TAG. The benefits are assessed as the incremental effect compared with the Do Minimum option in which the investment in the scheme proposals is not made.
- 4.12 The benefits which have been valued (in market prices) are:
- Car park revenue from increased car park demand
  - Rail farebox revenue from increased car park and cycle demand
  - Station facility enhancements including improved station building facilities, car park facilities, pedestrian routes across forecourt and improved cycle access routes to the station
  - Health and decongestion benefits of increased cycle parking
  - Non-user benefits including road decongestion, noise, greenhouse gas and accident savings
  - Commercial rental income

### Car park revenue

- 4.13 Current observations indicate that the station car park is often at or near capacity on weekdays. With the forecast growth in rail demand anticipated by GWR, a lack of available parking would curtail the ability for the station to accommodate those wishing to park, particularly for journeys into central Reading. The parking constraint would also prevent the Council's ambitions to increase mode transfer from private car to public transport through the promotion of park and rail facilities.
- 4.14 The proposals for a decked car park will increase the current capacity from 215 spaces to 326. In the absence of the car parking capacity constraint, strategic transport modelling has estimated that in the 2026 morning peak there would be an increase of 102 vehicles using the station. Given this uplift is likely to be gradual, the increase in demand has been built-up<sup>3</sup> between scheme opening in 2022 and 2026 for the economic appraisal. Based on this forecast demand growth, the capacity of the car park is expected to be reached on some days of the week around 2032.
- 4.15 The incremental parking demand, beyond the current car park capacity, will generate incremental parking revenue for the station operator. GWR has provided a yield estimate based on a blend of pay at the machine and online rates. It has been assumed that the yield will increase in line with general inflation. The additional car park revenue over the 30-year appraisal period is shown in Table 4.3 below, in 2010 Present Values (PV).

Table 4.3: Car Park Revenue

£m PV 2010, 30-year appraisal	Preferred Option
Car Park Revenue	1.21

<sup>3</sup> Ramp up profile assumed of 60% in 2022, with a further 10% p.a. to reach 100% in 2026



## **Farebox Revenue**

- 4.16 The increase in car park and cycle capacity, and as a result rail demand, will increase the rail farebox revenue. The additional car park demand has been calculated using a car park occupancy factor of 1.2 as advised by GWR. GWR has provided (commercially sensitive) estimates of yield for both those accessing the station by car and cycling. The increase in farebox revenue has been estimated by multiplying this additional demand by the average yields. It has been assumed that the yield will increase in line with general inflation. The 30-year farebox revenue is shown below.

*Table 4.4: Farebox Revenue*

<b>£m PV 2010, 30-year appraisal</b>	<b>Preferred Option</b>
Farebox Revenue	4.03

## **Cycle Parking Benefit**

- 4.17 The current 15 cycle parking spaces at Theale station are usually full and there is a waiting list for cycle lockers at the station. As part of the scheme proposals an additional 100 secure cycle parking facilities will be provided. This cycle parking hub will be well-lit, covered by CCTV and protected from the weather. The benefits associated with the improvements to the cycle facilities have been estimated using the DfT's May 2019 Active Mode Appraisal Toolkit (AMAT). The outputs of the AMAT are grouped into benefits in terms of mode shift (from car), health and journey quality.
- 4.18 Based on the high current usage of facilities, known suppressed demand, the supporting cycle access routes and GWR's assumptions for demand levels which informed the design parameters for the cycle hub, it has been assumed that daily cycle demand growth will increase by 50 cyclists by 2029. This is considered to be a conservative assumption and accounts for the fact that this figure reflects an average weekday, therefore there will be daily fluctuations in this. This element of the scheme has been designed to future proof cycle parking capacity at the station hence the longer growth profile and ensuring adequate capacity longer term. Assuming an operational capacity of 85%, the demand is nearing this level at the end point of the appraisal period.
- 4.19 The benefits of providing increased cycle parking have been assessed over 20-years (from scheme opening in 2022) as per the default assumption in the AMAT model. Table 4.5 below shows the benefits associated with increased cycle parking capacity over a 20-year period.

Table 4.5 – Cycle Parking Benefits

£m PV 2010, 20-year appraisal	Preferred Option
Mode Shift	0.02
Health Benefits	0.45
Journey Quality Benefits	0.15
<b>Total</b>	<b>0.62</b>

### Station Facility Improvement

4.20 The proposed scheme will deliver a number of benefits to users of Theale station, including:

- An improved experience for all station users through the opening of the new ticket office building including retail space and toilets;
- The additional car and bike parking capacity will include additional CCTV coverage, benefitting all passengers accessing the station via car or bike;
- Improved experience for all station users as they cross the station forecourt through dedicated walking routes, reducing conflict with vehicles;
- Improved cycle access routes to the station.

4.21 PDFH v6.0 Willingness to Pay (WTP) values (Table C8.5) have been used to estimate the value to rail users of improvements to station facilities. Based on the proposed improvements a basket of attribute values representing the holistic improved experience has been calculated as 16 pence per user (2010 prices, market prices). This WTP value has been grown in line with VOT over the 30-year appraisal period.

4.22 There will also be upgraded cycle and car parking facilities including more extensive CCTV. Similarly to the station improvement benefits, WTP values have been used from PDFH v6.0 (Table C8.7) to estimate the benefits to passengers of these improved facilities. An WTP value of 27 pence per user (2010 prices, market prices) has been used within the appraisal. This WTP value has been grown in line with VOT over the 30-year appraisal period.

4.23 The benefits of the dedicated pedestrian routes across the station forecourt and car park have been estimated using Transport for London (TfL's) Ambience Benefit Calculator (ABC). The outputs of the tool have been adjusted to reflect local WTP values. The benefits have been grown in line with VOT over the 30-year appraisal period.

4.24 The benefits associated with improved station facilities are shown in Table 4.6 below.

Table 4.6 – Station Facility Improvement Benefits

£m PV 2010, 30-year appraisal	Preferred Option
Ticket office facility improvement	0.96
Car/bike parking facility improvement	0.48
Pedestrian route improvement	0.09
<b>Total</b>	<b>1.53</b>

### Non User Benefits

- 4.25 The provision of increased car park capacity will encourage some trips that would be made in full by car to switch for at least part of the trip to rail. This will reduce the level of traffic on the highway network, which will lead to benefits to the environment and society from a reduction in car-kilometres driven.
- 4.26 While there will be an increase in local traffic accessing Theale station as a result of the scheme, the strategic transport modelling outputs indicate that there is sufficient highway capacity and therefore there will be very little impact on existing highway users in this area.
- 4.27 Based on DfT's methodology for calculating Marginal External Costs (MECs), the value of the non-user benefits has been derived. Table 4.2 shows the top 10 flows from Theale Station. It is not anticipated that there would be a material switching of trips to London by car to rail given the existing dominance of rail for these trips. However, for the more local regional centres it is anticipated that there could be a higher propensity to switch. As part of the strategic modelling four key destinations from Theale have been considered including Reading, Newbury, Thatcham and Twyford. Across these four origin-destination pairs the average reduction in highway kilometres through mode shift to rail at Theale was estimated to be 9.5km each way.
- 4.28 DfT's assumption of a 30% diversion factor (for non-London inter-urban trips) from car to rail has been used. Table 4.7 below shows the non-user benefits as a result of the increased car parking capacity at Theale Station. The decongestion benefits are anticipated to be a redistribution of traffic on the highway network. Given the approach employed is based on the overall change in highway kilometres travelled, it does not reflect the benefits of removing vehicles from the more congested areas of the network. Therefore, the value of decongestion benefits is anticipated to be an underestimate.

*Table 4.7 – Non-User Benefits*

<b>£m PV 2010, 30-year appraisal</b>	<b>Preferred Option</b>
Road Decongestion	0.01
Non-User Benefits (noise, local air quality, greenhouse gases, accident benefits & indirect tax)	0.10
<b>Total</b>	<b>0.11</b>

### **Commercial Rental Income**

4.29 The scheme will enable the opening of the new station building, which will include retail space. GWR has provided (commercially sensitive) analysis undertaken on its behalf of the estimated uplift in rental income resulting from the proposals for new retail space and an ATM. For the purposes of the appraisal it has been assumed that the rental income remains constant in real terms (and no uplift for turnover revenue has been included).

4.30 The 30-year benefits are shown in Table 4.8 below.

*Table 4.8: Commercial Rental Income*

<b>£m PV 2010, 30-year appraisal</b>	<b>Preferred Option</b>
Commercial Rental Income	0.06

## **TRANSPORT SCHEME COSTS**

### **Capital Costs**

4.31 The capital cost estimates have been developed on behalf of GWR and West Berkshire Council for the different elements of the scheme. Table 4.9 presents a summary of the cost breakdown for the elements which generate the benefits set out in the previous section. The Financial Case provides fuller details of the cost estimates.

*Table 4.1 – Capital Cost Estimate*

<b>Cost Line Item</b>	<b>Cost (£m, 2020 prices)</b>
Cycle Routes	0.22
Building Works	3.50
Preliminaries	0.52
Main Contractors OHP	0.24
Project / Design Team Fees	0.51
Other Development / Project Costs	0.25
Risk	0.90
<b>Total</b>	<b>6.14</b>

4.32 Inflation has been added to the scheme costs to reflect the year in which they are incurred. Costs have been assumed to grow in line with BCIS All-In Tender Price Index (TPI) March 2020 forecasts.

4.33 In line with Green Book guidance, within the appraisal Optimism Bias (OB) of 51% has been added to the scheme costs. This is the identified value for station building costs. The capital costs have then been adjusted to 2010 PV, market prices within the economic appraisal.

### ***Operating and Maintenance Costs***

4.34 The incremental station and car park management costs and maintenance costs have been estimated by GWR. Due to anticipated savings in some areas, the incremental annual cost estimate is negligible (c.£15,000), but has been included in the appraisal.

4.35 In the economic appraisal OB has been applied to these operating and maintenance costs consistent with the capital costs, and they have been converted to 2010 PV, market prices. These costs have been subtracted from the revenue generated by GWR through the scheme to estimate the revenue surplus which would be included in the revenue transfer franchise mechanism.

## **APPRAISAL RESULTS**

4.36 Combining the costs and benefits described above, the results for the economic appraisal are shown in Table 4.10.

Table 4.10 – Appraisal Results

£m PV 2010, 30-year appraisal	Preferred Option
<b>Benefits</b>	
Journey Quality	1.68
Physical Activity	0.45
Decongestion	0.02
Noise	0.01
Local Air Quality	Negligible
Greenhouse Gases	0.01
Accidents	0.11
Private sector revenue surplus	0.50
Private sector funding contribution	-1.00
Indirect Tax	-0.68
<b>Present Value of Benefits (PVB)</b>	<b>1.12</b>
<b>Costs</b>	
<b>PVC</b>	<b>0.34</b>
<b>Overall Impacts</b>	
<b>NPV</b>	<b>0.78</b>
<b>BCR</b>	<b>3.3:1</b>

- 4.37 The initial Benefit to Cost Ratio (BCR) of the scheme is 3.3:1, demonstrating high value for money.
- 4.38 The main benefits of the scheme are driven by the improvements to journey quality for rail passengers at Theale including the opening of the station building, increased security/CCTV of the car and cycle parking facilities and safer pedestrian routes across the station forecourt. Second to this are the health benefits of increased uptake in cycling through increased capacity of parking facilities.
- 4.39 There are then benefits associated with reductions in congestion, noise, accidents and greenhouse gases and increases in local air quality through mode shift from private car. This decrease in highway-kilometres also results in a reduction in tax receipts, as does greater expenditure on rail fares.
- 4.40 In addition to the economic benefits to society, increased car park and rail demand will generate incremental revenue for GWR as the station operator. The majority of

this will pass to DfT through the franchise mechanism, but GWR will retain some, including sufficient to cover the incremental station operating and maintenance costs. GWR is also making a funding contribution to the scheme.

- 4.41 The Transport Economic Efficiency (TEE), Public Accounts (PA) and Analysis of Monetised Costs and Benefits (AMCB) Tables can be found in Appendix D.

### *Appraisal Summary Table*

- 4.42 The sections below set out the environmental and social impacts of the scheme under the headings of the Appraisal Summary Table (AST). Some of these impacts have been monetised as part of the economic appraisal, the remainder have been assessed qualitatively and assessed on a 7-point scale.
- 4.43 The AST for the scheme can be found in Appendix E, which summarises the assessments below and presents this alongside the quantified economic results of the appraisal.

### **Environmental**

- 4.44 Eight environmental objectives are considered in the AST. Where impacts have been monetised these have been calculated using the Marginal External Costs approach and/or DfT's AMAT tool, as described above.

### *Noise*

- 4.45 Overall, the scheme is anticipated to result in a reduction in traffic movements. Increased car park capacity at the station will attract further rail demand, some of which will have switched from private car. Although there will be an increase in local trips to the station, many of which will be by car, these will be shorter distance trips than those journeys previously made by car that now switch to rail. This overall reduction in traffic will result in benefits in terms of noise impacts. Further there will be some mode shift to bicycle due to increased parking capacity and the provision of cycle access routes to the station, which will further increase noise benefits as a result of the scheme.
- 4.46 The impact on noise has been estimated using MECs, and is valued to be £0.01m (2010 PV) over the 30-year appraisal period.

### *Air Quality*

- 4.47 As described for Noise above, the scheme is likely to result in a net reduction in highway-kilometres. Due to the increase in car parking capacity at the station, some car users that previously drove a full journey will now use the car park and access the train at Theale for the remainder of their journey. This will reduce traffic along certain routes (e.g. M4 and towards Reading), and improve air quality in those areas. However, there will be an increase in cars driving to the station which could reduce air quality in the areas around the station. In addition, there will be some mode shift to bike due to increased parking capacity, which will benefit air quality as a result of the scheme.
- 4.48 The impact on air quality has been estimated using MECs and AMAT and is valued to be £0.002m (2010 PV) over the 30-year appraisal period.

### *Greenhouse Gases*

- 4.49 The scheme is likely to result in a net reduction in highway-kilometres, which will lead to a net decrease in greenhouse gas emissions. Similarly to air quality, the distribution of this will vary with a localised increase in local trips accessing the rail station likely to be a negative emission impact while the reduction in longer distance car trips on the wider network will cause an improvement in terms of greenhouse gases. In addition, modal shift to bike will generate further benefits in terms of greenhouse gas reductions, as will the promotion of zero emission vehicles through the provision of electric vehicle charging bays at the station.
- 4.50 The impact on greenhouse gases has been estimated using MECs and AMAT, and is valued to be £0.01m (2010 PV) over the 30-year appraisal period.

### *Landscape*

- 4.51 As the Theale station is situated in an urban setting, and improvements and upgrades are contained in the current station area, the impact on landscape has not been assessed.

### *Townscape*

- 4.52 The proposed scheme is contained within the existing station area, and the station building has already been constructed. Therefore, its opening will have no further impact on townscape. The development of the decked car park will visually impact the townscape, however this is deemed to be in keeping with the current setting of rail infrastructure and of the surrounding area.
- 4.53 Overall the impact on townscape is considered to be **Neutral**.

### *Historic Environment*

- 4.54 The proposed scheme is contained within the existing station and is not an historic environment. Therefore, this impact has not been assessed.

### *Biodiversity*

- 4.55 The proposed scheme is contained within the current station area, therefore the impact on biodiversity has not been assessed.

### *Water Environment*

- 4.56 The proposed scheme is contained within the current station area, and the scheme design will ensure appropriate surface drainage. The impact is considered to be **Neutral**.

### *Summary*

- 4.57 The table below shows a summary of the environmental impacts of the scheme.



Table 4.11: Environmental Assessment

Impact	Assessment
Noise	£0.01m
Air Quality	£0.002m
Greenhouse Gases	£0.01m
Landscape	Not Assessed
Townscape	Neutral
Historic Environment	Not Assessed
Biodiversity	Not Assessed
Water Environment	Neutral

## SOCIAL

4.58 The sections below consider the nine social objectives. Where impacts have been monetised these have been calculated using the Marginal External Costs approach, DfT's AMAT model or TfL's ABC Tool.

### Reliability

4.59 The provision of increased car and cycle parking capacity, along with enhanced circulation, will benefit reliability due to reducing delay in finding an available space. Or when the car park and cycle spaces are currently full, having to go somewhere else to park and then return to the station.

4.60 The strategic transport modelling outputs indicate that the additional trips attracted to the enhanced station can be accommodated by the local highway network and for the wider highway network the switching of some trips from road to rail will positively contribute to improved reliability.

4.61 The overall impact of the scheme on reliability is anticipated to be **Slight Beneficial**.

### Physical Activity

4.62 The improvement to cycle facilities will encourage active travel and therefore physical activity. Greater levels of cycling will result in health benefits through reduced health problems including diabetes and high blood pressure. These benefits have been captured in the DfT's AMAT which monetises the societal benefits of the reduced risk of premature death. The tool also estimates the benefits of reduced absenteeism as a result of improved health through active travel. The AMAT tool estimates the health benefits associated with the increase in cycling parking provision to be £0.45m (2010 PV) over a 20-year appraisal period.

### *Journey Quality*

- 4.63 The improvements to the station and access will make the station experience better for rail users accessing the station by all modes. The additional car parking and cycle space will reduce the stress and uncertainty over finding a space for station users and when at the station its legibility will be improved with clearly defined walking routes and a higher standard of surfaces.
- 4.64 The scheme will also bring the currently vacant station building into use. The station building will have a retail unit and toilets, both of which the station does not currently have. These new facilities will therefore improve the quality of journey for users of the station.
- 4.65 The journey quality benefits of the scheme are estimated to be £1.68m over a 30-year appraisal period.

### *Accidents*

- 4.66 The overall reduction in highway-kilometres travelled as a result of the scheme will reduce the number of highway accidents. This benefit has been calculated using the MECs approach and AMAT tool and is estimated to be £0.11m (2010 PV) over the 30-year appraisal.
- 4.67 Further, the addition of clearly defined walking and cycling routes through the station car park should reduce the risk of accidents and conflicts between pedestrians, cyclists and cars and improve the perception of station users' sense of safety, particularly those who are more vulnerable, e.g. those with children, people with reduced mobility.

### *Security*

- 4.68 The opening of the station building will provide a location for station users to wait in safe surroundings and seek assistance if required, supporting a sense of security. The station building and station area, including cycle and car parking areas will be covered by CCTV facilities and well-lit. This will improve both the real and perceived levels of security and give confidence to users that their bicycle and vehicles will be secure while left there.
- 4.69 The impact of the scheme on security is expected to be **Slight Beneficial**.

### *Access to Services*

- 4.70 The scheme will improve accessibility to the station and therefore the rail network for all access modes. Complementing the new footbridge, a step-free access route will be provided from the station building, which itself will provide an accessible ticket desk and accessible toilets. The provision of disabled parking bays and bus laybys for rail replacement buses will also benefit the physical accessibility of interchanging at the station.
- 4.71 The impact of the scheme on accessibility is considered to be **Slight Beneficial**.

### *Affordability*

- 4.72 The increase in parking spaces will encourage some private car users to switch to park and rail instead. As they will be driving a shorter distance they will experience lower vehicle operating costs. They will incur the additional cost of the car park and

rail fare, however, it is assumed this impact does not affect their overall utility and is reflected in the diversion factor assumed from TAG.

4.73 The increase in cycle parking capacity and investment in the cycle access routes will encourage more station users to cycle. Those switching to cycling from bus or car will have a lower cost of transport where they no longer pay fares or fuel and non-fuel vehicle operating costs.

4.74 The overall impact of the scheme on affordability is assumed to be **Neutral**.

#### *Severance*

4.75 The scheme does not impact severance. Therefore, the impact is assessed to be **Neutral**.

#### *Option and Non-Use Values*

4.76 The proposal does not introduce new travel options and therefore the impact is considered to be **Neutral**.

#### *Summary*

4.77 Table 4.12 below shows a summary of the social impacts of the scheme.

*Table 4.12: Social Impacts summary table*

<b>Impact</b>	<b>Assessment</b>
Reliability	Slight Beneficial
Physical Activity	£0.45m
Journey Quality	£1.68m
Accidents	£0.11m
Security	Slight Beneficial
Access to Services	Slight Beneficial
Affordability	Neutral
Severance	Neutral
Option and Non-Use Values	Neutral

## **DISTRIBUTIONAL IMPACTS**

4.78 A Distributional Impacts (DI) screening exercise has been carried out. This exercise determined whether the scheme is likely to have an impact on the DI indicators, and therefore whether it should proceed to the second stage of the process.

4.79 The impact of the scheme is anticipated to be felt primarily by users of Theale station with some minor benefits to highway users (through mode shift). However, this is not anticipated to be experienced disproportionately by any specific social

group. Therefore, at this stage none of the DI indicators are assessed as requiring being progressed to Stage 2 assessment.

4.80 The full DI screening proforma is found at Appendix F.

### *Sensitivity Testing*

4.81 A series of tests have been undertaken to assess the sensitivity of the expected outcomes to changes in inputs. These sensitivity tests explore the impact of changes to key assumptions within the economic appraisal. The following tests have been carried out:

- Test 1: 50% reduction in the number of station users who experience benefits of station improvement
- Test 2: Increase to 100 additional cycle users by 2029, reaching full capacity of infrastructure
- Test 3: Increase appraisal period assumed in AMAT to 30-years
- Test 4: Reduce the number of additional car park users in AM Peak by 25%
- Test 5: Reduce OB to 24% in line with value for standard building works

4.82 Table 4.13 below shows the results of each of these tests compared to the core scenario results.

*Table 4.13 – Sensitivity Test Results*

Test	PVB (£m, 2010)	PVC (£m, 2010)	NPV (£m, 2010)	BCR
<b>Core Scenario</b>	<b>1.12</b>	<b>0.34</b>	<b>0.78</b>	<b>3.3:1</b>
Test 1	0.64	0.34	0.30	1.9:1
Test 2	1.13	-0.16	1.29	Financially Positive
Test 3	1.43	0.34	1.09	4.2:1
Test 4	1.08	0.88	0.20	1.2:1
Test 5	1.12	-0.57	1.70	Financially Positive

4.83 A further test was carried out considering the change in benefits required for the scheme value for money assessment to reduce from high to medium. The PVB would need to decrease by 39% in order for the value for money category of the scheme to change to medium and have a BCR below 2:1.

4.84 The tests above demonstrate that the scheme can withstand downward adjustments to a number of the key inputs and continue to demonstrate value for money. Further, if there were increased use of cycle parking spaces, or reductions in the scheme costs compared to the core scenario then the value for money of the scheme could increase substantially.

### *Value for Money Statement*

- 4.85 The initial BCR of the improvements at Theale Station is 3.3:1, demonstrating high value for money. The Present Value of Benefits (PVB) of the scheme is £1.12m. These benefits include the monetised impact on journey quality of improvements to the station and parking facilities. The improved offer at Theale Station will result in some mode shift to rail and cycling from private car, this will have decongestion benefits for remaining road users. Further the benefits include the health impacts with increased cycle provision at the station.
- 4.86 The scheme will result in increased car park, rail farebox and commercial rental revenue to GWR, as well as an increase in the operating and maintenance costs of the station. Through the franchise premium mechanism a proportion of this revenue will be transferred to DfT, therefore the incremental increase in operating surplus is considered as part of the PVB. The capital costs funded by GWR have been subtracted from the benefits to inform the PVB.
- 4.87 The Present Value of Costs (PVC) of the scheme is estimated to be £0.34m. This cost includes the capital cost of the scheme funded by TVBLEP and West Berkshire Council, from which the revenue transferred to DfT through the franchise premium has been subtracted.
- 4.88 In addition to the quantified benefits included in the BCR there are also further social benefits of the scheme. These include improved reliability where those arriving at the station by car or bike will have increased parking capacity reducing search time for a space, and increased security through CCTV and lighting installation at the ticket office and cycle parking hub.
- 4.89 The sensitivity tests demonstrate that the scheme can withstand reductions in benefits, and increases in costs and continue to demonstrate value for money. Further, if the station reached its full capacity of cycle demand, or was delivered under the cost assumptions, the value for money would increase significantly.

## 5. Financial Case

### Introduction

- 5.1 This section presents the Financial Case for the Theale Railway Station Upgrade Scheme. It demonstrates the affordability of the proposal and describes the proposed funding arrangements. The total costs for different elements of the scheme are presented along with the anticipated expenditure profile. The impact of the proposal on the public purse is also set out at the end of the section.

### Cost Estimates

- 5.2 There are some distinct elements that, together, will deliver significant investment in Theale Station and improve its access routes. The main elements which are the key focus of this business case are:
- Station upgrade works – including additional parking, a cycle hub, new forecourt and safer routes for passengers within the station lease area
  - Access route improvements – improved crossing points, wayfinding signage, speed reduction and pedestrian priority measures.
- 5.3 The cost estimates for these main elements are set out in Table 5.0 along with the cost estimate for the other significant investment at Theale which is the Access for All scheme to be delivered by Network Rail.

Table 5.0 Scheme costs

Scheme Element	Delivery Organisation	Cost Estimate £'000
Access for All Scheme (Bridge with Lifts)	Network Rail	4,000
Station Upgrade Works	GWR	5,915
Improvements to Station Access Routes	WBC	222
<b>TOTAL</b>		<b>10,137</b>
<b>TOTAL (without AfA scheme element)</b>		<b>6,137</b>

- 5.4 Once these elements are all delivered, Theale Station will be a fully accessible interchange providing excellent passenger facilities. It is important, therefore, to consider this wider scheme as a whole because it is the total investment in Theale Station that will make the difference. The Access for All project on its own will not be made best use of unless the new station building is brought into operation and there are good pedestrian links to the bridge and lifts for easy access to the platforms. Likewise, if the upgrade scheme for the station is delivered and routes improved for access from the surrounding area but there is no new access to the platforms available to all via a new bridge and lifts then Theale Station will not provide the accessible interchange that it has desired to be for a number of years.
- 5.5 It is important to note at this stage that the Network Rail contribution is an estimate based on comparable Access for All schemes and requires NR validation as they progress into detailed design stage.

- 5.6 The design of the other elements of the scheme has been undertaken to a sufficient stage to provide reasonable cost estimates. These cost estimates relate to the station upgrade works developed by GWR and their consultants and the access route improvement work developed by the Council. Together the cost of these elements is estimated to be £6.137m. The latest designs for each can be found in Appendix A (for station upgrade works) and Appendix B (for access route improvements).
- 5.7 Table 5.1 shows the breakdown of costs for the station upgrade works and Table 5.2 shows the breakdown of costs for the access route improvement work along with business case development costs. The assumption for risk allowance / contingency included in the tables is at 20% for both GWR and WBC delivery elements. This is based on projects elsewhere and is a standard contingency allowance for projects of this scale, at this stage in the project.

*Table 5.1 Breakdown of costs for the station upgrade works*

Description	Cost
Substructure	£299,660
Superstructure	£2,642,225
Internal finishes	£5,045
Services	£8,000
External works	£537,053
Main contractor's preliminaries	£523,797
Main contractor's overhead's and profit	£240,947
Project / Design Team Fees	£510,817
GWR Directs	£246,250
<b>Base cost estimate</b>	<b>£5,013,794</b>
Construction Risk Allowance	£851,345
Professional Fees and Survey Risk Allowance	£50,000
<b>Total Risk Allowance</b>	<b>£901,345</b>
<b>TOTAL COST</b>	<b>£5,915,139</b>

*Table 5.2 Breakdown of costs for access route improvement works*

Description	Cost
Site set up / compound	£2,169
Traffic Management	£2,679
Site clearance	£7,722
Drainage	£8,902
Earthworks	£10,372
Surfacing	£3,772
Kerbs and channels	£39,715
Signage	£7,654
Landscaping	£7,500
Lighting	£3,000
Utility Diversion	£10,000
Land acquisition	£5,000

Wayfinding	£20,800
Highway Signage P&R	£16,000
Project management	£22,280
Legal fees	£1,000
<b>Sub total</b>	<b>£168,564</b>
Contingency	£33,713
Business case development & modelling	£20,200
<b>TOTAL COST</b>	<b>£222,477</b>

- 5.8 The elements of the wider scheme are proposed to be delivered over a 3 year period starting in this financial year 2020/21 and completing in 2022/23 with the delivery of the Access for All scheme. Table 5.3 shows the predicted spend profile for the delivery of the wider scheme. The delivery programme for elements for which Local Growth Funds are proposed to be used shows completion by the end of 2021 calendar year.

*Table 5.3 Spend profile (£'000)*

Scheme element	2020/21	2021/22	2022/23	Total
Station Upgrade Works	600	5,315	-	<b>5915</b>
Improvements to Station Access Routes	222	-	-	<b>222</b>
Access for All Scheme	-	-	<b>4,000</b>	<b>4,000</b>
<b>Total spend per year</b>	<b>822</b>	<b>5,315</b>	<b>4,000</b>	<b>10,137</b>

### *Budgets / Funding Cover*

- 5.9 The Access for All bridge and lifts scheme will be delivered by Network Rail with funding from the DfT. This funding and delivery programme is separate to the delivery of the other elements but will link closely. The funding package proposed for financing the wider scheme is shown in Table 5.4. This includes the £4million which is the amount being requested from Local Growth Funds through this business case.

*Table 5.4 Wider Scheme Proposed Funding Package*

Type of secured funding	Organisation	Amount (£'000)	Percentage of total funding
AfA	Network Rail / DfT	4,000	39%
Local Contribution (Private Sector)	GWR	1,687	17%
Local contribution (Public sector)	WBC	450	4%
Funding to be sought from Local Growth Fund	TVB LEP	4,000	39%
		<b>10,137</b>	<b>100%</b>



5.10 As stated before, the figure for the AfA bridge is an estimate that needs to be validated by NR as they progress through detailed design stage. DfT have announced that the scheme will be delivered in the current Control Period thereby securing funding for this part of the investment at Theale. If we consider the more focused package, the proposed funding streams and the percentage investment from each partner organisation are shown in Table 5.5

*Table 5.5 Focused Scheme Proposed Funding Package*

Type of secured funding	Organisation	Amount (£'000)	Percentage of total funding
Local Contribution (Private Sector)	GWR	1,687	27%
Local contribution (Public sector)	WBC	450	7%
Funding to be sought from Local Growth Fund	TVB LEP	4,000	65%
		<b>6,137</b>	<b>100%</b>

5.11 In terms of the funding package set out in Table 5.5, the following points provide some further context:

- The local contribution from GWR is subject to DfT and First Group approvals. The process for seeking these approvals is underway with a decision anticipated in June 2020.
- The local contribution from WBC is funding that is secure and has been allocated to the delivery of improvements at Theale Station.
- The Berkshire Local Transport Body has provisionally allocated the required funding (£4million) to this project. This business case sets out how WBC and GWR will use this funding in the best possible way to provide benefits and seeks to demonstrate that the investment would deliver good value for money.

5.12 In order to ensure that the scheme will be affordable throughout the life of the project it is important to consider the spend profile (Table 5.3) against the timing of the availability of funding. This has been done for the wider scheme and is shown in Table 5.6.

*Table 5.6 Comparison of spend and availability of funding for wider scheme*

Scheme element spending profile (£'000)	2020/21	2021/22	2022/23	Total
Station Upgrade Works	600	5,315	-	<b>5,915</b>
Improvements to Station Access Routes	222	-	-	<b>222</b>
Access for All Scheme	-	-	4,000	<b>4,000</b>
<b>Total scheme cost per year</b>	<b>822</b>	<b>5,315</b>	<b>4,000</b>	<b>10,137</b>
Available funding (£'000)	2020/21	2021/22	2022/23	Total
AfA Network Rail / DfT	-	-	4,000	<b>4,000</b>

Local Growth Fund (LEP)	4,000			<b>4,000</b>
Local Contribution GWR		1,687		<b>1,687</b>
Local Contribution WBC	450			<b>450</b>
<b>Total funding available per year</b>	<b>4,450</b>	<b>1,687</b>	<b>4,000</b>	<b>10,137</b>
<b>Cumulative funding vs spend</b>	<b>3,628</b>	<b>0</b>	<b>0</b>	

- 5.13 There are not multiple funding streams coming together for this scheme so the availability of funding is quite straightforward. The delivery of the bridge and the funding available for it are contained within the last year of the wider investment programme. As Table 5.6 demonstrates, much of the rest of the scheme's funding is available in the first year of delivery where there is only moderate spend proposed. This provides assurance of availability of funding for year 2 which is when the majority of the expenditure will occur.
- 5.14 In terms of planning for potential cost increases or scheme issues that mean cost overruns result, the standard contingency has been built into the cost estimates. If there are increases above this risk allowance, the scheme promoters will work jointly to source additional funds so that the scheme will not be hindered and the benefits will still be delivered. This seeking of additional funds will not include a further approach to the LEP although the LEP will remain fully informed of any such cost increases.
- 5.15 The understanding with Growth Deal funded schemes is that local contributions should always be sought to be maximised. This is true not only in the planning of the funding package but also as the scheme develops and is delivered. The scheme promoters will take any opportunities that arise to seek further local contributions to ensure optimum value for money for investment from the Local Growth Fund.
- 5.16 It is hoped that with the iterative process that has occurred to date in terms of scheme development and assessment of costs, the cost estimates will remain broadly right for the delivery of the scheme. If this remains the case, the overall position shown in Table 5.6 is that the project can be delivered with the funding available. .

### ***Accounting Implications***

- 5.17 The Theale Station Upgrade Scheme (not including the AfA element to be delivered separately) is expected to have the following implications on the public accounts.
- (a) Local Growth Funding is requested to fund £4.0 million of the scheme costs. The delivery of the scheme can be accommodated within the funding package shown in Table 5.5 over a period bridging 2 financial years
  - (b) A contribution of £0.45 million is coming from public funding set aside by the Council for improvements at Theale Station.

## 6. Commercial Case

### *Introduction*

- 6.1 The Commercial Case has been developed following the outline set out below:
- Set the procurement objectives, outcomes and constraints;
  - Identify potential procurement / purchasing options;
  - Assess the procurement options in terms of pros and cons, as a rationale for selecting the preferred sourcing option;
  - Confirm the preferred payment mechanism and pricing framework; and
  - Assess how different types of risk might be apportioned / shared, with risks allocated to the party best placed to manage them.

### *Output Based Specification*

- 6.2 The Commercial Case is based on strategic outcomes and outputs, against which alternative procurement options are assessed. The outcomes which the preferred procurement strategy must deliver are to:
- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints;
  - Minimise further preparation costs with respect to scheme design by ensuring best value, and appropriate quality;
  - Obtain contractor experience and input to the construction programme to ensure the implementation programme is robust and achievable; and
  - Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve out-turn certainty thereby reducing risks to a level that is 'As Low as Reasonably Practicable' (HSE Risk Management).
- 6.3 At this point in the description of the commercial case it is necessary to discuss the approaches of WBC and GWR separately as the two organisations will be managing their elements of the overall scheme according to their own internal processes and rules. The Project Team will always have an overview of the whole project – see the Management Case for a description of how the reporting and management processes have been established.

## *West Berkshire Council*

### *Procurement Strategy*

- 6.4 The procurement strategy for the Walking and Cycling Access Improvements work will follow West Berkshire Council's Constitution Part 11 sets out the Contract Rules of Procedure in order to provide a structure within which procurement decisions are made and implemented to ensure that the Council furthers its corporate objectives in an efficient manner leading to procurement of quality supplies, services and works.

- 6.5 Every purchase, contract or official order for works, supplies or services made by the Council must be for the purpose of implementing the Council's policies and must be made in accordance with the Council's duty of Best Value, Equality and Sustainable Commissioning.
- 6.6 The contract value is the total cost of the supply, service or work to be procured over the contract term. The starting point for calculating the contract value for the purposes of the Contract Rules of Procedure is that the contract value shall be the genuine pre-estimate of the value of the entire contract excluding Value Added Tax. This includes all payments to be made, or potentially to be made, under the entirety of the contract and for the whole of the predicted contract period (including proposed extensions, variations and options).
- 6.7 The Contract Rules of Procedure set out the financial value thresholds and mandatory processes which must be followed at each level. Due to the value of the walking and cycling access route improvements procurement will not need to be undertaken in line with the Official Journal of the European Union (OJEU) principles and the Council's local procurement procedures can be followed.
- 6.8 The Council has a Framework Contract in place for highways works which could be used for this scheme if it is considered to offer best overall value to the delivery of the project.

### *Delivering the Optimum Procurement Strategy*

- 6.9 When investigating procurement options, the Council's Projects Team has considered how the scheme fits into the cost, risk and value matrix detailed in the following table:

<p><b>High Risk/Low Spend</b></p> <p>Cost is not a driving factor. Delivery is critical. Functional/dynamic specification. Essential to maintain overview of delivery, specification and supply chain.</p>	<p><b>High Risk/Medium Spend</b></p> <p>Cost is a driver. Delivery is critical. Functional/dynamic specification. Need tight controls on delivery, specification and supply chain. Collaborative approach considered.</p>	<p><b>High Risk/High Spend</b></p> <p>Cost is a critical issue. Delivery is critical. Dynamic specification with 3<sup>rd</sup> party involvement (Network Rail). Need tight controls of all aspects of relationship including key performance indicators.</p>
<p><b>Low Risk/Low Spend</b></p> <p>Cost is not a driving factor. Delivery is not critical. Detailed specification. Delegated purchasing. Simple order on multiple suppliers.</p>	<p><b>Low Risk/Medium Spend</b></p> <p>Cost is a driver. Delivery is not critical. Detailed specification. Full NEC contract with delay damages. Open tender.</p>	<p><b>Low Risk/High Spend</b></p> <p>Cost is a key issue (can be driven down). Delivery is not critical. Detailed specification. Delay damages and hard contract conditions. Consider traditional competitive route.</p>

(See Appendix G for low and high risk/spend criteria)

- 6.10 This project falls within the Low Risk/Medium Spend criteria which has been used as a guide when considering the most appropriate procurement option.

- 6.11 Collaborative early contractor involvement through an appropriate Framework is considered the most appropriate route and will deliver best value for money. The early contractor involvement on previous projects has resulted in a well-managed site with excellent stakeholder engagement, minimal complaints about disruption and no cost or time over-runs.

### ***Sourcing Options***

- 6.12 Sourcing will be carried out by West Berkshire Council's Highways Projects Team. Suppliers and contractors will be sourced in accordance with the Procurement Strategy set out above. The selection process will include consideration of the specific needs of the scheme, its interaction with the other projects being delivered at Theale station (GWR works and also Network Rail AfA bridge) and any other planned local works and the timescale for delivery.
- 6.13 Opportunities to source materials and labour from the local area will be encouraged, to achieve further additional benefits within Thames Valley Berkshire and to reduce the impact of the movement of people and materials on CO<sup>2</sup> and air quality.

### ***Payment Mechanisms, Pricing Framework and Charging Mechanisms***

- 6.14 Task orders based on a fixed or target price arrangement will be awarded based on the NEC 3 contract model, or similar, which allows for penalty clauses, specifically relating to over running.
- 6.15 Payments to the contractor will be made in arrears to the value of 60% of the project subject to an independent clerk of works agreeing with the submission made by the contractor.
- 6.16 Payments made to the contractor will be subject to a further cross checking against the programme to ensure that the absolute minimum over run occurs, if any and if a penalty is due to be applied, work with the contractor to rectify/remedy this.
- 6.17 The final 40% will be paid in stages upon receiving invoices for completed elements of the work.

### ***Risk Allocation and Transfer***

- 6.18 The authority has experience dealing with many procurement and construction contracts of this nature and will work towards minimising risk through the contract process. The authority will be responsible for the interaction with GWR and Network Rail as required.

## ***Great Western Railway***

### ***Procurement Strategy***

- 6.19 GWR operates a Procurement and Supplier Management Procedure (Appendix X) for all procurement activities undertaken by GWR and applies to all employees, managers and directors as well as external agents working on behalf of GWR.

- 6.20 The key aims of the procedure are to provide transparency of process, compliance with GWR's governance requirements and to ensure that procurement activities are:
- Legal, accountable and auditable
  - Ethically, environmentally and socially responsible
  - Undertaken to minimise commercial and reputational risk
  - Able to demonstrate best value for money
- 6.21 The procedure states all GWR procurement activities must fully respect and comply with:
- All applicable UK (England & Wales and Scotland) laws and regulations
  - All applicable European Union laws, directives and regulations especially those governing Procurement (e.g. Utilities Contract Regulations and Public Contract Regulations)
  - All relevant laws, regulations, treaties and agreements to which the UK is party

### *Works Procurement*

- 6.22 GWR has significant experience in the successful procurement, contracting and delivery of construction projects of varying size and complexity across its network. This includes the procurement and delivery of minor works schemes of less than £50k up to the delivery of major depot or car park schemes in excess of £20M.
- 6.23 GWR employs dedicated construction project and procurement specialists that are responsible for the procurement and delivery of works projects. The team are supported by the appointment of property consultants and contractors, as required, to provide specialist input to develop the scheme design and support the project delivery.
- 6.24 GWR operates a Property Consultants Framework, which covers all key disciplines (e.g. Architectural, Civil/Structural, Cost Engineers etc) with pre-agreed framework rates and terms and conditions in place. Any specialist consultants or contractors required to support the successful delivery of the project shall be procured and appointed from this framework in accordance with GWR's procurement procedure.
- 6.25 GWR will appoint construction contractors following competitive tender against a defined design and specification in accordance with its procurement procedure. GWR will generally seek to appoint a single principle contractor with responsibility for the delivery of all works requirements under the design.
- 6.26 The contractor procurement strategy will be defined at the outset based on the project value, complexity and programme requirements with the predominant approaches being either traditional route or design and build against a fixed priced lump sum.

6.27 Contractors are generally appointed under JCT contract with a schedule of amendments with the appropriate form of contract selected based on the requirement value, complexity and procurement route.

**Contractor Procurement Strategy**

6.28 In assessing the preferred procurement strategy for this requirement, GWR mainly reviews two distinct delivery options – Traditional and Design & Build approach. Please see below high level assessment of the relative benefits and risks of each approach.

Option	Procurement Approach	Benefits	Risks
<b>Option A</b>	Design and Build approach	<ul style="list-style-type: none"> <li>• Single point of detailed design and build responsibility</li> <li>• Provides better commercial and delivery risk transfer as design risk largely sits with Contractor</li> <li>• Enables earlier contractor engagement to inform buildability of design</li> <li>• Offers better opportunity for innovation in design and delivery process</li> <li>• Can provide programme benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Can lead to challenges with build quality as reliant on Employers Requirements specification</li> <li>• More difficulty in specifying maintainability of final design</li> <li>• Outsources some of the consents requirement (e.g. NR F002/003) to main contractor, which can create delivery risks</li> </ul>



<p><b>Option B</b></p>	<p>Traditional route</p>	<ul style="list-style-type: none"> <li>• Offers opportunity to undertake procurement exercise based on fully designed and NR approved scheme</li> <li>• Bidders are aware of the full project requirements and risks when tendering</li> <li>• Easier to seek comparative tenders on a fixed price lump sum basis</li> <li>• Easier to seek more accurate contractor programmes during tender process</li> </ul>	<ul style="list-style-type: none"> <li>• Doesn't adequately offer opportunities for contractor input into improving the design (particularly from a buildability perspective)</li> <li>• Relies heavily on the design expertise of the Designer</li> <li>• Requires greater upfront investment of time to develop detailed design resulting in a later appointment of contractor</li> <li>• Issues with the design are contractual responsibility for the Employer</li> </ul>
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### ***Risk Management Plan***

- 6.29 A Risk Management Plan will be developed for the whole project and followed throughout the life of the scheme delivery. Risks will be allocated to those parties best able to manage them at the point of delivery.
- 6.30 The Risk Management Plan will set out the full risk management process and responsibilities for undertaking risk management to deliver the scheme. Implementation of a structured, forward looking and continuous risk and opportunity management process is intended to increase the certainty of cost-effective scheme

delivery and operational success. The Risk Management Plan will be owned by the joint WBC and GWR Project Team.

- 6.31 Further risk identification will be carried out in numerous ways, as follows, giving the opportunity to identify and manage as wide a scope of risks as necessary.
- Workshops;
  - Reviews;
  - Meetings; and
  - Day to day operation.

When a risk is identified, the data will be added to the Risk Register.

- 6.32 Other organisations will be encouraged to inform the risk register so that risks they are better equipped to identify are captured (such as Network Rail).

## 7. Management Case

### *Introduction*

- 7.1 The Management Case has taken into the requirements as set out Table 5.1 of the DfT's guidance document, "The Transport Business Case: Management Case". This outlines the areas that should be covered as part of the Full Business Case documentation. It examines the proposed project planning, governance structure, risk management, communications and stakeholder management, benefits realisation and assurance.

### *Evidence of Similar Projects*

- 7.2 Great Western Railway has overseen projects to upgrade and improve a number of stations on its operating network. These include similar enhancement projects to stations at Didcot Parkway, Gloucester, Exeter St. David's and Bristol Parkway; all of which have involved part Local Growth Deal funding via their respective Local Enterprise Partnerships. GWR also has demonstrable experience at delivering improvements at many other stations via a range of funding mechanisms.
- 7.3 GWR, as the local Train Operating Company, has considerable experience in developing and delivering schemes in accordance with Network Rail's Governance for Railway Investment Projects (GRIP).
- 7.4 West Berkshire Council has a part to play in delivering the walking and cycling access improvements and also in the overall project management and liaison with TVB LEP. The Council has extensive experience in delivering improvements to support sustainable travel and also in working with TVB LEP on schemes part-funded by Local Growth Deal funding. The Council has recently successfully delivered their section of the NCN 422 route from Newbury to Ascot to support increased cycling between urban centres.
- 7.5 As local Highway Authority, the Council has considerable experience in designing and delivering walking and cycling improvements within specified timeframes. A number of such improvements are delivered each year as part of their capital programme.

### *Programme and Project Dependencies*

- 7.6 The GWR delivered elements of the project are assumed to be within railway Permitted Development, and as such are able to be carried out under the Prior Approvals process. As WBC is the joint scheme promoter, regular progress meetings and key decision points will ensure that WBC is engaged throughout the design process and approve these aspects.
- 7.7 The work within the GWR station lease area will also require Rail Industry landlord approvals via Landlord's Consent and the Station Change process. Network Rail will provide Asset Protection services, via an Asset Protection Agreement between Network Rail and GWR. This will ensure industry practice is followed and the station improvements are acceptable to Network Rail throughout the design process.

7.8 The works will be delivered taking into account the programme for the Network Rail delivered Access for All scheme. Construction work for the Access for All scheme is due to commence in June 2022, and forums such as the GWR/NR Alliance Board will enable the works to be considered strategically as part of an overarching set of improvement works at the station. The NR Sponsor for the AfA scheme is also the Sponsor for the Theale station improvement works, which will ensure synergy with programmes and support a joint phasing approach to the works as required.

### **Governance, Organisational Structure and Roles**

7.9 WBC will be the lead for the design and construction of the Walking and Cycling Access Improvements element of the project. WBC will also have responsibility for the overall management for the project, with responsibility for providing updates on progress to TVB LEP and BLTB when required.

7.10 GWR will lead on the station area design and delivery of the various elements associated with the station car park, forecourt and ticket office.

7.11 The governance model for the project can be seen in Figure 7.0 below. As joint scheme promoters, a Project Manager will be nominated from both WBC and GWR. They will lead and manage the project teams on a day to day basis and will be responsible for liaising with the relevant delivery teams for their respective elements of the project. The nominated Project Managers will be:

- West Berkshire Council – Transport Policy Team Leader
- Great Western Railway – Regional Development Manager

7.12 Both WBC and GWR Project Managers will report progress to their respective senior Project Boards. These boards will provide oversight, scrutiny and guidance, and will also authorise expenditure in line with the agreed funding profile. The composition of the boards is as follows:

- WBC Project Board – Executive Member for Transport<sup>4</sup> & Transport Advisory Group (comprising Councillors, Heads of Service, & Planning & Transport Policy Manager)
- GWR Station and Car Parks Steering Group (comprising the Heads of Service and the Commercial Development Director)
- and GWR Project Board (comprising the Sponsor, Project Manager, Workstream Leads and Commercial Development Director)

7.13 The day to day running of the project will be overseen by the Project Team, comprising both Project Managers plus other officers from WBC and GWR. Network Rail is also a member of this group in their role as the station landowner. The Project Team will liaise with other stakeholders as required throughout the duration of the project.

7.14 The Project Team also links with and / or is represented on the Steering Groups of the Access for All scheme, delivered by Network Rail.

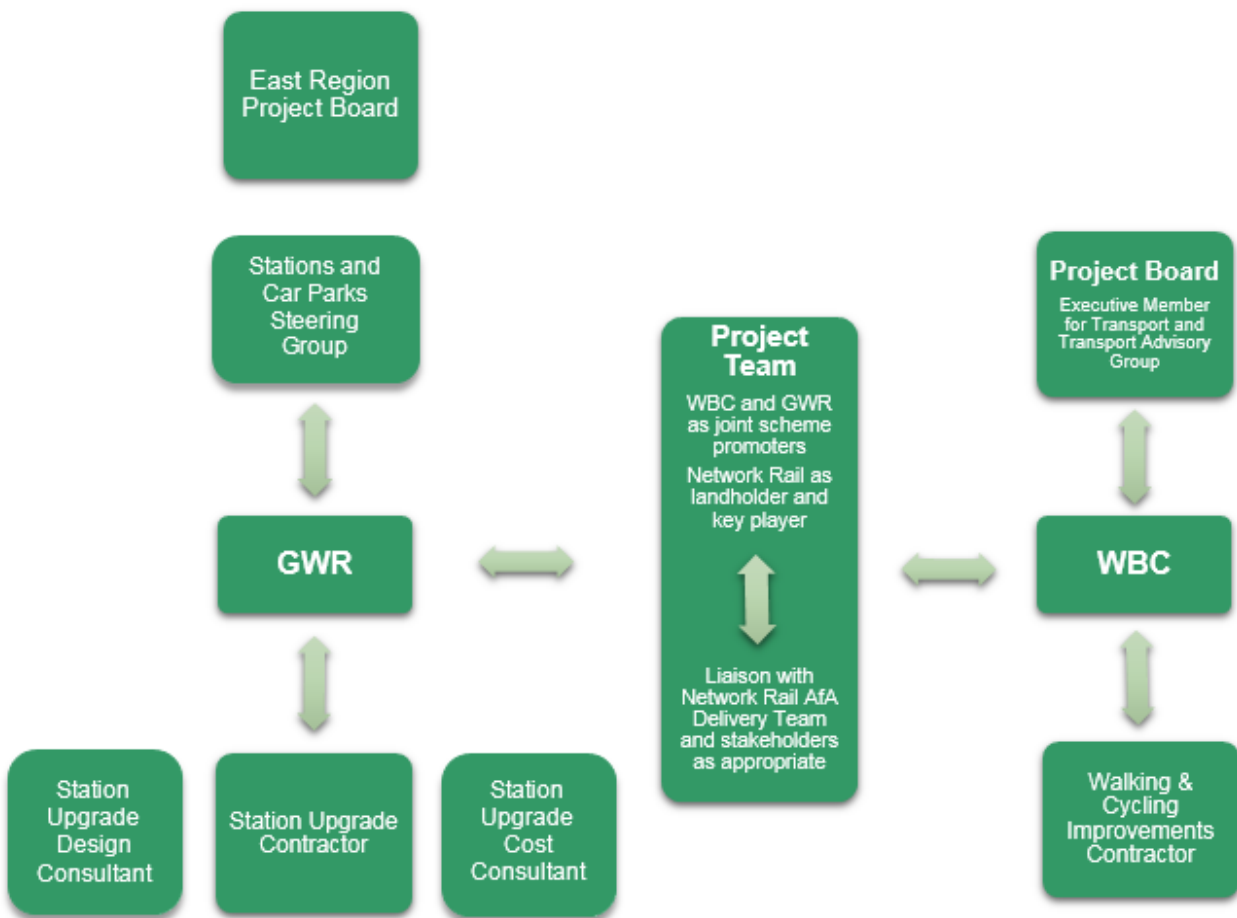
7.15 Linking with these groups and having Network Rail on the Project Team enables the coordination of the various elements. With a consistent Network Rail Sponsor across the schemes, the phasing programmes are combined and considered as an

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<sup>4</sup> The Executive Member for Transport is also WBC's representative for BLTB

overall station masterplan to ensure they work well together and do not cause an unacceptable level of disruption.

*Figure 7.0 – Governance Model for the Theale Park & Rail scheme*



### **Programme / Project Plan**

- 7.16 A project plan showing key milestones for development and delivery of the scheme is shown in Appendix H. This programme will be refined following full scheme approval and is subject to the detailed design of specific scheme elements. This programme is also subject to Covid-19 and any potential delays that may arise at procurement stage.
- 7.17 Work to date has been undertaken at both WBC’s and GWR’s own risk. Without the Local Growth Deal funding from TVB LEP, the project cannot be fully completed, and the ability of the station to accommodate the forecasted increase in passengers and to be an effective Park and Rail location will be severely reduced.

### **Assurance and Approval Plan**

- 7.18 WBC has developed their own Project Management Methodology (PMM) which has 5 ‘gateways’ across the 4 phases of the project. These four phases are:
  - Project Initiation

- Project Planning
- Project Execution and
- Project Closure

7.19 The principles of the Council's PMM will be followed for the walking and cycling access improvements. These are similar to PRINCE2 principles. WBC's Project Board will be included at key decision making stages and kept up to date on a regular basis with regards to progress as shown in Figure 7.0 above.

7.20 All GWR projects are delivered in accordance with the GWR Project Charter, and in accordance with its project lifecycle which covers the five key project stages:

- *Initiation*
- *Choose Option*
- *Design*
- *Build*
- *Close*

7.21 GWR deploys a five stage project life cycle which can be mapped onto the Governance for Railway Investment Projects (GRIP) utilised extensively by Network Rail. Formal stage gate reviews are held at varying points within the lifecycle to examine a project, to provide assurance that it can successfully progress to the next stage. Regular project monitoring and formal reporting takes place on the following areas:

- *Project Progress – Periodical Project Scorecard/RAG Report*
- *Cost Management Plan*
- *Risk Management – Risks and Issues register*
- *Change Management*
- *Contractual Disputes/Clarifications*

### ***Communications and Stakeholder Management***

7.22 Theale Railway Station is a busy station with significant local interest from residents and surrounding businesses in what this scheme will deliver. Communicating key messages and engaging with passengers, residents and workers will be an important part of the success of this scheme and keeping people informed. The key objectives of the scheme's stakeholder management will be to:

- Keep stakeholders aware of the scheme's development and progress;
- Meet statutory requirements (such as S278 / S38 / other consents);
- Increase public and stakeholder awareness of the scheme through local publicity; and
- Provide information and support to those affected by the scheme during construction.

7.23 The Project Team will arrange regular meetings with stakeholders, designers and contractors to ensure that the project is on track and that risks are being monitored and acted upon appropriately if they occur.

- 7.24 An overarching communications strategy will be developed and managed jointly by West Berkshire Council and Great Western Railway to ensure a coordinated approach to communicating with and managing stakeholders. This will also be shared with Network Rail with a view to creating a joint communications strategy for the station works as a whole.

### *Programme / Project Reporting*

- 7.25 Responsibility for accurate, timely and appropriate communications within the Project Team rests with the nominated Project Managers from WBC and GWR. They will be responsible for ensuring that their respective Project Boards are kept up to date with programme developments.
- 7.26 Both Project Managers will be responsible for ensuring that their Project Board is provided with sufficient information and awareness of progress towards achieving the project objectives. This will assist the Project Board in providing the necessary senior management guidance on programme decisions. The Project Managers are also responsible for dealing with their relevant delivery teams to ensure that delivery takes place according to the programme. Project Team meetings are held on a monthly basis, with outcomes escalated to the relevant Project Board where required.

### *Implementation of Work Streams*

- 7.27 The key workstreams for implementing the project are as follows;
- Approval of Business Case
  - LEP and BLTB progress reporting - WBC

#### *Walking and Cycling Access Improvements Element – WBC Lead*

- Detailed Design (prepared by WBC's in-house Network Management Team)
- Procurement Exercise (led by Network Management Team)
- Utility Works (led by Network Management Team, carried out by appointed contractor)
- Construction (through appointed contractor for the scheme)
- Site supervision (WBC Network Management Team)
- Monitoring and Evaluation (WBC in-house)

#### *Station Element – GWR Lead*

- Detailed design (led by GWR Project Team, undertaken by appointed Design Consultant, Oxford Architects)
- Undertaking necessary approvals (led by GWR Project Team in consultation with NR and WBC)
- Procurement Exercise (led by GWR Project Team)
- Access for All scheme (led by Network Rail with input from GWR and WBC)
- Works to the station, including car parking, forecourt and station building (carried out by appointed contractor, overseen by GWR Project Team)
- Site supervision (GWR Project Team, undertaken by appointed Contractor)
- Monitoring and Evaluation (GWR Project Team)



## **Key Issues**

- 7.28 One of the main issues for the delivery of the scheme will be continued coordination between the elements of the scheme and with the adjacent Access for All scheme. This will be managed through consistent representation on the different working groups, liaison with the Network Rail Sponsor and regular review of programmes of work.
- 7.29 Other issues for the scheme will be achieving the necessary approvals and consents in a timely manner. Also, ensuring that costs do not escalate and that, wherever possible, any additional third party funding can be secured so that best use is made of public money throughout the project.
- 7.30 Continuing to provide a good service and appropriate facilities to passengers throughout the scheme delivery phases will also form an important key consideration for the project and will have to be carefully managed alongside good communication.
- 7.31 Where these key issues give rise to risks for the project that need to be considered in detail and managed, these are dealt with in section 7.11 below.

## **Risk Management**

- 7.32** An initial risk register has been prepared by WBC and GWR, which is provided in Appendix D. This presents a Red-Amber-Green (RAG) based assessment for each identified risk both before and after avoidance and mitigation measures. The risks so far identified relate to:
- *Timing of adjacent footbridge works*
  - *Cost escalation through the design process*
  - *Buried services and utilities*
  - *The presence of a Thames Water culvert under the car park, and consideration of construction technique*
  - *Land negotiation relating to footway widening for walking / cycling improvements*
  - *Construction delays, particularly relating to uncertainty around Covid-19*
- 7.33 The risk register is a live document and will be updated on a regular basis throughout the lifetime of the project. Risk owners will be appointed as appropriate to the type of risk and the stage of scheme delivery at which the risk could be realised.

## **Evidence of Certainty of Development**

- 7.34 The walking and cycling access route improvements are well advanced in terms of design and do not require planning approval. They are mainly within the highway boundary with the exception of a small section of proposed footway widening works. This will involve negotiation for land acquisition, something which the Council is well practiced at.

- 7.35 The works delivered by Network Rail for a new lift footbridge, are part of Network Rail's Control Period 6 committed schemes. The AfA project team have a programme that indicates that on-site works are due to commence in June 2022 with the footbridge scheduled for completion in February 2023.
- 7.36 Designs for the station and car park element of the project are currently being prepared by GWR's Design Consultant. It is expected that the various components of this part of the project, can be carried out under the Prior Approval under Part 18 of the Town & Country Planning (General Permitted Development) (England) 2005.
- 7.37 All parties are committed to the successful delivery of the project, with WBC and GWR both committing time and resources to drive the project forward and to ensure that delivery can occur in a timely manner consistent with the proposed funding arrangement agreed with TVB LEP.

### *Contract Management*

- 7.38 A standard contract form, such as NEC 3, will be used to ensure that the contractual and commercial arrangements are well defined. This form of contract is well understood throughout the supply chain and uses a pre-defined risk register to allocate and manage anticipated risk. During contract negotiations, risk will be allocated to the party best able to manage it the most cost effective way.
- 7.39 For the GWR led works, a standard contract form, such as JCT contracts, will be used to ensure that the contractual and commercial arrangements are well defined. This form of contract is well understood throughout the supply chain and uses a pre-defined risk register to allocate and manage anticipated risk. During contract negotiations, risk will be allocated to the party best able to manage it the most cost effective way.

### *Managing the Impacts of Construction*

- 7.40 When works are undertaken, good practice construction techniques will be employed to minimise any impact on potential receptors through the implementation of a Construction Environmental Management Plan (CEMP). A CEMP will be implemented during construction to control and minimise any potential impacts. The CEMP document will include working times, equipment to be used, delivery and construction routes, and temporary traffic management arrangements.

### *Benefits Realisation*

- 7.41 Tracking the scheme benefits will be a key element to understand the successes of the project and to ensure that the objectives for the project are realised. The means to capturing these benefits is set out in the 'monitoring and evaluation' strategy in Sections 7.44 – 7.46
- 7.42 Both the WBC and GWR Project Boards will be responsible for tracking the benefits realised for their respective elements of the project. This will allow for the timely indication of any particular areas where benefits are not being realised as should be expected. The relevant Project Board will then appoint someone with sufficient expertise to oversee remedial actions to try to bring benefits back in line with expectations. The progress of delivery of the various components of the two main

scheme elements will be monitored to ensure delivery is achieved against planned timescales and actual expenditure versus planned expenditure. In terms of financial risk, an element of contingency has been built into the costings for both elements of the project. Responsibility for overseeing delivery will rest with the respective Project Managers for WBC and GWR, with any changes or deviations being reported to the relevant Project Board.

- 7.43 The risk register will be regularly reviewed and maintained by the Project Managers for WBC and GWR throughout the lifetime of the project. The register will be updated as necessary, with any mitigation and/or contingency measures used as appropriate. Any such measures will be discussed and approved by the relevant Project Board.

### **Monitoring & Evaluation**

- 7.44 A robust monitoring and evaluation strategy is key to be able to accurately measure the success of the project, and to determine whether the objectives have been realised. To assist with this, a series of indicators based on the outputs and outcomes of the main elements of the project has been produced to monitor the delivery and success of the project. These can be seen in the proposed monitoring programme in Table 7.1 below.

*Table 7.1 – Proposed Monitoring Programme for Theale Station Project*

<b>Project Element</b>	<b>Indicators</b>
Walking and Cycling Access Improvements	<u>Outputs</u> Delivery of improved pedestrian and cycle routes Installation of wayfinding signage
	<u>Outcomes</u> Growth in use of sustainable travel modes to access the station Improved safety on Station Road and Brunel Road Increased cycle / walking trips
Station Facilities Enhancement	<u>Outputs</u> Increased number of secure cycle parking spaces provided Increased number of car parking spaces Provision of improved passenger facilities at the station, including opening the new ticket office building Delivery of improved forecourt and interchange
	<u>Outcomes</u> Growth in passenger numbers using Theale station. Increased level of cycling to the station. Increased passenger satisfaction with station facilities.

Delivery through Access for All scheme	Outputs Delivery of new lift footbridge at the station
	<u>Outcomes</u> Station becomes fully accessible for passengers Growth in passenger numbers using Theale station

7.45 Monitoring and evaluation will be undertaken in three separate stages:

- *Immediately after construction has been completed (Q1 – 2022)*
- *One-year post completion evaluation (Q1 – 2023)*
- *Five-year post completion evaluation (Q1 – 2027)*

7.46 The proposed monitoring schedule to measure the indicators is as follows:

- *Passenger numbers based on ORR annual station usage data to determine the level of passenger growth at Theale railway station.*
- *The number of cycle parking spaces provided upon completion and the level of utilisation. This will be compared to the number of spaces currently provided and levels of use.*
- *Assessment of car park utilisation for car parking at the station. Occupancy levels will be compared to the current parking provision for the station car park*
- *Reported incidents of crime at the station, particularly in relation to cycle thefts. Again this will be compared to current crime data.*
- *Road Traffic Collision data on Station Road and Brunel Road.*
- *Qualitative assessment of passenger satisfaction with improved station facilities, and interchanges. This will be done through short interviews with passengers arriving or waiting at the station.*

## 8. Conclusion

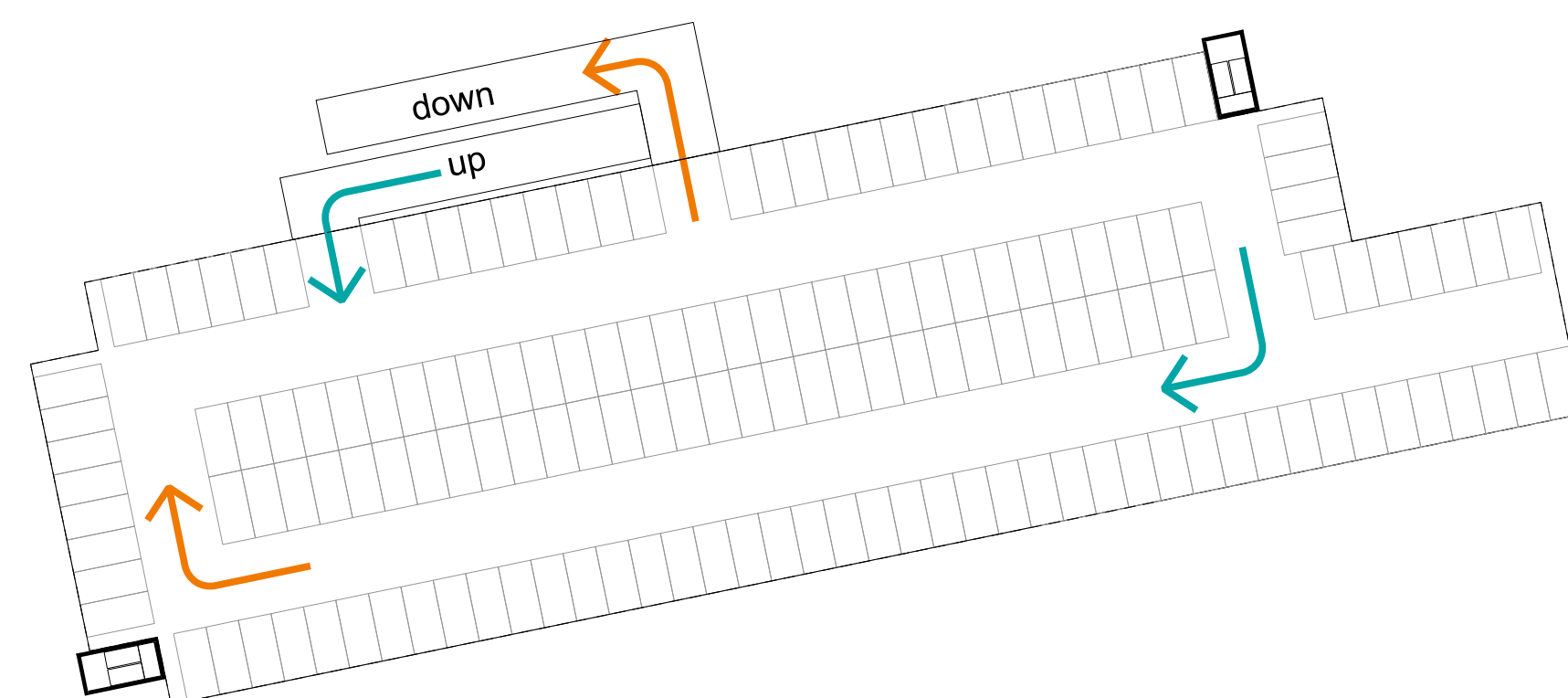
- 8.1 This Business Case presents the assessment and appraisal for a proposal to upgrade passenger interchange and facilities at Theale station. This is to be achieved in two distinct elements; improvements to passenger interchange and facilities, and increase car parking capacity, led by Great Western Railway and the walking and cycling access improvements led by West Berkshire Council.
- 8.2 These two strands of the project, plus the delivery of the Network Rail “Access for All” footbridge will make the station a modern and attractive interchange that is able to meet the needs of all future passengers.
- 8.3 The key elements of the proposal have undergone a series of assessments in line with Department for Transport WebTAG guidance to outline the strategic, economic, financial, commercial and management aspects of the projects.
- 8.4 Assessment and sensitivity tests undertaken as part of the Economic Case demonstrate that the scheme can achieve a Benefit/Cost Ratio of 3.3:1, indicating a **High** value for money. Therefore the scheme promoters are confident in putting this scheme forward for consideration by the Berkshire Local Transport Body for funding.

# Appendix A

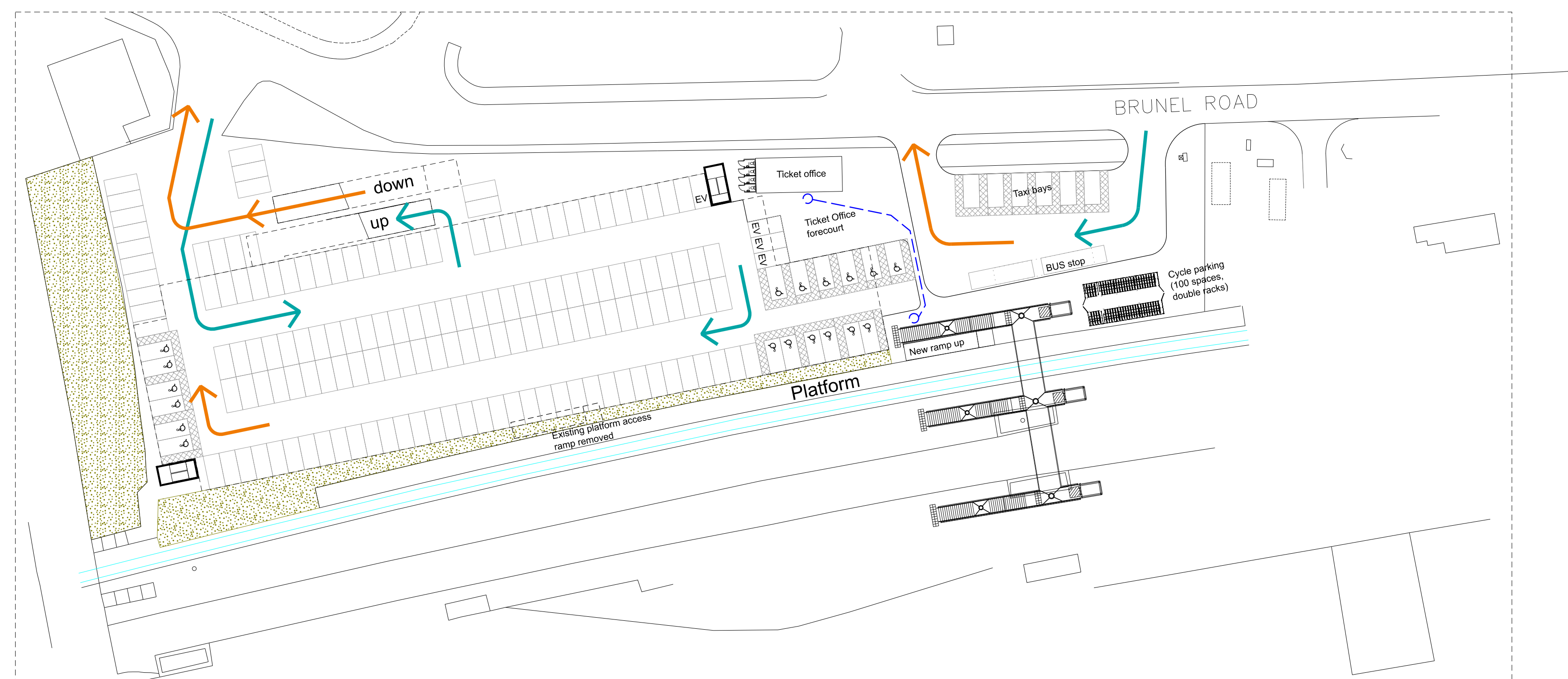


Proposed parking spaces	323
GF (incl 18 blue badge & 4 EV, but excl 6 taxi bays)	169
FF	154
Existing parking spaces	212 (approx)
Extra spaces provided	111
Cycle parking spaces	100

- UP / IN
- DOWN / OUT
- - - Ticket Office forecourt with designated route between TO and overbridge/platforms
- Vegetation
- Walkways



FIRST FLOOR



GROUND FLOOR / AT-GRADE

Revision	Description	Date
Partner	Drawn	Date Created
MS	MS	27/04/20
Project		

Theale train station

Title  
Parking option 5.1  
1 Deck

Drawing Reference			
19112-OA-A-XX-DR-1013-XX			
Proj Ref	Origin	Role	Zone
1013			
Drawing No	Revision	Status	
1013	P1	S0	

Scale  
1:500 @ A1 & 1:1000 @ A3

**OXFORD ARCHITECTS**

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The Workshop, 254 Southmead Road, Bristol, BS10 5EN  
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# Appendix B





# Appendix C

Project Manager: Nasima Ruhi

Ref	Risk Category	Risk Description	Pro ba bili	Im pac t
R1	Funding	Suitable options not deliverable within the funding available	3	4
R2	Programme	Suitable options not deliverable within the timeframe available	3	3
R3	Planning & Consents	Ecological issues delay works	2	3
R4	Commercial	NR asset protection arrangements cannot be agreed in a timely manner causing delay to NR approvals	2	4
R5	Planning & Consents	Local Planning Authority will not agree to use of PD rights	3	3
R6	Commercial	Business Case does not receive unconditional approval	3	3
R7	Commercial	Funding agreement cannot be agreed between GWR and WBC	2	4
R8	Design	Final design necessitates changes to current station operations	3	3
R9	Procurement	D&B tendering based on insufficiently developed designs leads to cost increase and delay	3	4
R10	Design	Local issues (access, weather, etc) prevents site surveys causing delay to project	2	4
R11	Safety	Road safety audit necessitates additional works to the new highway layout	2	4
R12	Design	Culvert (Thames Water asset) located underneath car park has implication for car park foundations	2	4
R13	Programme	Delays to Form 2 and Form 3 approval	3	3

R14	Programme	NR AfA bridge timescales clash with GWR construction programme	2	3
R15	Programme	Programme is impacted by COVID-19 and availability and ability of contractors to meet timescales	4	4



## ions & Risk Register - Theale Car Park

Pre Mit iga	Mitigation Action	Action Owner	Date Complete
48	Secure additional funding from GWR where required to contribute towards the scheme. Ongoing value engineering activities to challenge design assumptions where possible to minimise cost	Nicola Scott	Jun-20
27	Early programme development to understand key milestones, and work with stakeholders to agree core outputs	Nasima Ruhi	Jun-20
18	Early ecological surveys to be undertaken as soon as practicably possible	Nasima Ruhi	Jul-20
32	Early engagement with Network Rail ASPRO team and commence BAPA development working with the NR Project Sponsor	Laura Compton	Jun-20
27	Prior engagement with NR and WBC planners to agree planning approach	Nasima Ruhi	Ongoing
27	Draft business case to be shared with independent assessor to gain early feedback on approach. If conditions are attached, work closely with partners to resolve and close out issues quickly, using expertise from other business case work	Nicola Scott	Jun-20
32	Early engagement between GWR and WBC legal teams. Template funding agreements from other LEP projects to be shared as best practice in advance and key variations agreed in principle.	Nicola Scott / Laura Compton	Jul-20
27	Any changes will be developed in collaboration with the station manager and station operations team	Nasima Ruhi	May-20
48	Minimise uncertainties to best extent prior to ITT and seek opportunity for tenderers to be supplied with further information.	Nasima Ruhi	Jul-20
32	Allow sufficient programme time to accommodate.	Nasima Ruhi	May-20
32	Maintain engagement with highway team as design progresses.	Nasima Ruhi	Jun-20
32	Services surveys to be conducted to accurately locate services. Car park build options will be considered, including modular construction option	Nasima Ruhi	Jul-20
27	Work closely with NR to ensure approval conditions are met	Nasima Ruhi	Jul-20

18	NR Sponsor for AfA scheme and GWR scheme is the same, enabling consistency and transparency of approach. Phasing plan to be shared and closely monitored. Programmes to be shared in regular progress meetings	Nasima Ruhi	Ongoing
64	Opportunities to accelerate the programme will be continuously reviewed. Early engagement with procurement team and opportunity to test the market, to tailor the ITT	Nasima Ruhi	Oct-20

Date: 06-May-20

Pro ba bili ty	Im pac t	Mit iga tio
2	4	32
2	3	18
1	3	9
2	3	18
2	3	18
2	3	18
1	4	16
2	3	18
3	3	27
1	3	9
2	3	18
2	3	18
3	3	27



2	2	8
3	4	48



1

1

2

2

3

3

Risk

4

4

Issue

5

5

# Appendix D

**Economic Efficiency of the Transport System (TEE) - Theale Station**

	ALL MODES	BUS and RAIL			
		ROAD	COACH	RAIL	OTHER
<b>Non-business: Commuting</b>	<b>TOTAL</b>	<b>Private Cars and LGVs</b>	<b>Passengers</b>	<b>Passengers</b>	
<u>User benefits</u>					
Travel time	12,681	12,681			
Vehicle operating costs	-				
User charges	-				
During Construction & Maintenance	-				
<b>NET NON-BUSINESS BENEFITS: COMMUTING</b>	<b>12,681</b> (1a)	<b>12,681</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Non-business: Other</b>	<b>TOTAL</b>	<b>Private Cars and LGVs</b>	<b>Passengers</b>	<b>Passengers</b>	
<u>User benefits</u>					
Travel time	8,020	8,020			
Vehicle operating costs	-				
User charges	-				
During Construction & Maintenance	-				
<b>NET NON-BUSINESS BENEFITS: OTHER</b>	<b>8,020</b> (1b)	<b>8,020</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Business</b>		<b>Business Cars</b>			
<u>User benefits</u>		<b>Goods Vehicles</b>	<b>&amp; LGVs</b>	<b>Passengers</b>	<b>Freight</b>
Travel time	2,650		2,650		
Vehicle operating costs	-				
User charges	-				
During Construction & Maintenance	-				
<b>Subtotal</b>	<b>2,650</b> (2)	<b>0</b>	<b>2,650</b>	<b>0</b>	<b>0</b>
<b>Private sector provider impacts</b>				<b>Freight</b>	<b>Passengers</b>
Revenue	5,299,295				5,299,295
Operating costs	- 284,376				-284,376
Investment costs	- 996,162				-996,162
Grant/subsidy	- 4,513,427				- 4,513,427
<b>Subtotal</b>	<b>- 494,670</b> (3)			<b>0</b>	<b>-494,670</b>
<b>Other business impacts</b>					
Developer contributions	(4)				
<b>NET BUSINESS IMPACT</b>	<b>- 492,020</b> (5) = (2) + (3) + (4)				
<b>TOTAL</b>					
Present Value of Transport Economic Efficiency Benefits (TEE)	<b>- 471,319</b> (6) = (1a) + (1b) + (5)				

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.

All entries are discounted present values, in 2010 prices and values

**Public Accounts (PA) Table - Theale Station**

	ALL MODES TOTAL	ROAD INFRASTRUCTURE	BUS and COACH	RAIL	OTHER
<b>Local Government Funding</b>					
Revenue	-				
Operating Costs	- 2,778		-2,778		
Investment Costs	462,001				462,001
Developer and Other Contributions	-				
Grant/Subsidy Payments	-				
<b>NET IMPACT</b>	459,223 (7)				
<b>Central Government Funding: Transport</b>					
Revenue					
Operating costs					
Investment Costs	4,395,225				4,395,225
Developer and Other Contributions	-				
Grant/Subsidy Payments	- 4,513,427			-	4,513,427
<b>NET IMPACT</b>	- 118,202 (8)			-	118,202
<b>Central Government Funding: Non-Transport</b>					
Indirect Tax Revenues	678,956 (9)	35,821			643,134
<b>TOTALS</b>					
<b>Broad Transport Budget</b>	341,022 (10) = (7) + (8)				
<b>Wider Public Finances</b>	678,956 (11) = (9)				

Notes: Costs appear as positive numbers, while revenues and 'Developer and Other Contributions' appear as negative numbers.  
 All entries are discounted present values in 2010 prices and values.

### Analysis of Monetised Costs and Benefits - Theale Station

Noise	7,506	(12)
Local Air Quality	1,978	(13)
Greenhouse Gases	11,818	(14)
Journey Quality	1,681,150	(15)
Physical Activity	453,774	(16)
Accidents	112,584	(17)
Economic Efficiency: Consumer Users (Commuting)	12,681	(1a)
Economic Efficiency: Consumer Users (Other)	8,020	(1b)
Economic Efficiency: Business Users and Providers	- 492,020	(5)
Wider Public Finances (Indirect Taxation Revenues)	- 678,956	
Present Value of Benefits (see notes) (PVB)	1,118,535	
Broad Transport Budget	341,022	(10)
Present Value of Costs (see notes) (PVC)	341,022	(PVC) = (10)
OVERALL IMPACTS		
<b>Net Present Value (NPV)</b>	777,514	NPV=PVB-PVC
<b>Benefit to Cost Ratio (BCR)</b>	3.3	BCR=PVB/PVC

Note : This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

# Appendix E



Appraisal Summary Table

Date produced: 15 5 2020

Contact:

Name of scheme:		Theale railway station improvements and interchange enhancements scheme					Name	Jenny Graham	
Description of scheme:		The proposals will enable the vacant station building to be enhanced and brought into operation, improve interchange facilities for cyclists, pedestrians, rail replacement bus users and those dropped-off/picked-up and additionally, there will be improved cycle routes to the station. Increased car park capacity will also be introduced.					Organisation Role	West Berkshire Council Promoter/Official	
Impacts	Summary of key impacts	Assessment					Monetary £(NPV)	Distributional 7-pt scale/ vulnerable grp	
		Quantitative			Qualitative				
Economy	Business users & transport providers	Improvements to the station through better facilities: retail unit, toilets, disabled access, cycle and car spaces, improved interchange facilities. Some journey time savings through mode shift from a journey solely by private car to using rail for an element of the journey. Increased farebox and car park revenue for GWR through increased car park and cycle parking capacity. Increased O&M costs for GWR to maintain additional infrastructure. GWR contribution to the scheme costs.	Value of journey time changes(£)		2,650	-	-492,020		
		Net journey time changes (£)							
		0 to 2min	2 to 5min	> 5min					
	Reliability impact on Business users	The provision of increased car and cycle parking capacity, along with enhanced circulation, will benefit reliability due to reducing delay in finding an available space. Or when the car park and cycle spaces are currently full, having to go somewhere else to park and then return to the station.				Slight Beneficial	-		
	Regeneration	Not Assessed				Not Assessed	-		
	Wider Impacts	Not Assessed				Not Assessed	-		
Environmental	Noise	Overall, the scheme is anticipated to result in a reduction in traffic movements. Increased car park capacity at the station will attract further rail demand, some of which will have switched from private car. Although there will be an increase in local trips to the station, many of which will be by car, these will be shorter distance trips than those journeys previously made by car that now switch to rail. Further there will be some mode shift to bicycle due to increased parking capacity and the provision of cycle access routes to the station, which will further increase noise benefits as a result of the scheme.				-	7,506		
	Air Quality	Due to the increase in car parking capacity at the station, some car users that previously drove a full journey will now use the car park and access the train at Theale for the remainder of their journey. This will reduce traffic along certain routes, and improve air quality in those areas. However, there will be an increase in cars driving to the station which could reduce air quality in the areas around the station. In addition, there will be some mode shift to bike due to increased parking capacity, which will benefit air quality as a result of the scheme.				-	1,978		
	Greenhouse gases	The scheme is likely to result in a net reduction in highway-kilometres, which will lead to a net decrease in greenhouse gas emissions. The distribution of this will vary with a localised increase in local trips accessing the rail station likely to be a negative emission impact while the reduction in longer distance car trips on the wider network will cause an improvement in terms of greenhouse gases. In addition, modal shift to bike will generate further benefits in terms of greenhouse gas reductions, as will the promotion of zero emission vehicles through the provision of electric vehicle charging bays at the station.	Change in non-traded carbon over 60y (CO2e)		-	-	11,818		
		Change in traded carbon over 60y (CO2e)		-					
	Landscape	As the Theale station is situated in an urban setting, and improvements and upgrades are contained in the current station area, the impact on landscape has not been assessed.				-	Not Assessed	-	
	Townscape	The proposed scheme is contained within the existing station area, and the station building has already been constructed. Therefore, its opening will have no further impact on townscape. The development of the decked car park will visually impact the townscape, however this is deemed to be in keeping with the current setting of rail infrastructure and of the surrounding area.				-	Neutral	-	
	Historic Environment	The proposed scheme is contained within the existing station and is not an historic environment. Therefore, this impact has not been assessed.				-	Not Assessed	-	
	Biodiversity	The proposed scheme is contained within the current station area, therefore the impact on biodiversity has not been assessed.				-	Not Assessed	-	
Water Environment	The proposed scheme is contained within the current station area, and the scheme design will ensure appropriate surface drainage.				-	Neutral	-		
Social	Commuting and Other users	Improvements to the station through better facilities: retail unit, toilets, disabled access, cycle and car spaces, improved interchange facilities. Some journey time savings through mode shift from a journey solely by private car to using rail for an element of the journey.	Value of journey time changes(£)		20,701	-	20,701		
		Net journey time changes (£)							
		0 to 2min	2 to 5min	> 5min					
	Reliability impact on Commuting and Other users	The provision of increased car and cycle parking capacity, along with enhanced circulation, will benefit reliability due to reducing delay in finding an available space. Or when the car park and cycle spaces are currently full, having to go somewhere else to park and then return to the station.				-	Slight Beneficial	-	
	Physical activity	The improvement to cycle facilities will encourage active travel and therefore physical activity. Greater levels of cycling will result in health benefits through reduced health problems including diabetes and high blood pressure.				-	-	453,774	
	Journey quality	The improvements to the station and access will make the station experience better for rail users accessing the station by all modes. The additional car parking and cycle space will reduce the stress and uncertainty over finding a space for station users and when at the station its legibility will be improved with clearly defined walking routes and a higher standard of surfaces. The scheme will also bring the currently vacant station building into use. The station building will have a retail unit and toilets, both of which the station does not currently have. These new facilities will therefore improve the quality of journey for users of the station.				-	-	1,681,150	
	Accidents	The overall reduction in highway-kilometres travelled as a result of the scheme will reduce the number of highway accidents. Further, the addition of clearly defined walking and cycling routes through the station car park should reduce the risk of accidents and conflicts between pedestrians, cyclists and cars and improve the perception of station users' sense of safety, particularly those who are more vulnerable, e.g. those with children, people with reduced mobility.				-	-	112,584	
	Security	The opening of the station building will provide a location for station users to wait in safe surroundings and seek assistance if required, supporting a sense of security. The station building and station area, including cycle and car parking areas will be covered by CCTV facilities and well-lit. This will improve both the real and perceived levels of security and give confidence to users that their bicycle and vehicles will be secure while left there.				-	Slight Beneficial	-	
	Access to services	The scheme will improve accessibility to the station and therefore the rail network for all access modes. Complementing the new footbridge, a step-free access route will be provided from the station building, which itself will provide an accessible ticket desk and accessible toilets. The provision of disabled parking bays and bus laybys for rail replacement buses will also benefit the physical accessibility of interchanging at the station.				-	Slight Beneficial	-	
Affordability	The increase in parking spaces will encourage some private car users to switch to park and rail instead. As they will be driving a shorter distance they will experience lower vehicle operating costs. They will incur the additional cost of the car park and rail fare, however, it is assumed this impact does not affect their overall utility and is reflected in the diversion factor assumed from TAG. The increase in cycle parking capacity and investment in the cycle access routes will encourage more station users to cycle. Those switching to cycling from bus or car will have a lower cost of transport where they no longer pay fares or fuel and non-fuel vehicle operating costs.				-	Neutral	-		
Severance	The scheme is not anticipated to impact on severance.				-	Neutral	-		
Option and non-use values	The proposed scheme does not introduce new travel options and therefore the impact is considered to be Neutral.				-	Neutral	-		
Public Accounts	Cost to Broad Transport Budget	The scheme requires WBC and LEP funding in order to deliver the necessary infrastructure. Through the franchise revenue transfer mechanism, central Government will receive additional revenue as a result of the scheme. This revenue balances some of the costs required from the public sector.				-	-	341,022	
	Indirect Tax Revenues	The scheme will result in a reduction in highway kilometres where some people who currently use their car for their full journey will switch to using car and rail from Theale. Further other private car users will switch to active modes as a result of the increased station cycle parking. This reduction in highway KM will result in a reduction in indirect tax revenues to central Government.				-	-	-678,956	

# Appendix F

## Distributional Impact Appraisal Screening Proforma

**Scheme description:** The proposed Theale Station Upgrade scheme will include enhancements to the current vacant station building such as security improvements, a new cycle hub, and safe walking and cycling routes throughout the surrounding area of the station. The current car park will be upgraded to a decked car park to provide a further 111 spaces to the current 215 and the new cycle hub storage facility will have a total capacity of 115 bicycles.

Indicator	(a) Appraisal output criteria	(b) Potential impact (yes / no, positive/negative if known)	(c) Qualitative Comments	(d) Proceed to Step 2
User benefits	The TUBA user benefit analysis software or an equivalent process has been used in the appraisal, and/or the value of user benefits Transport Economic Efficiency (TEE) table is non-zero.	Yes, Positive	The scheme results in a total of £23,351 user benefits across business, commuting and other users. Although this is beneficial it is considered modest in scale and the benefit will be felt by those currently travelling on the highway network. Therefore this benefit is not anticipated to be experienced disproportionately by any specific social group. Given the scale of benefits estimated it is not considered proportionate to proceed further with the DI assessment.	No
Noise	Any change in alignment of transport corridor or any links with significant changes (>25% or <-20%) in vehicle flow, speed or %HDV content. Also note comment in TAG Unit A3.	Yes, Positive	The impact on noise has been estimated using MECs and is valued to be £0.01m (2010 PV) over the 30 year appraisal period. The increased car park capacity as part of the scheme is anticipated to increase mode shift from private car users to park and ride users. The result will be a reduction in traffic and therefore beneficial noise impacts. These benefits are anticipated to be modest and therefore at this stage it is not considered proportionate to assess the impact across different social groups.	No
Air quality	Any change in alignment of transport corridor or any links with significant changes in vehicle flow, speed or %HDV content: <ul style="list-style-type: none"> <li>Change in 24 hour AADT of 1000 vehicles or more</li> <li>Change in 24 hour AADT of HDV of 200 HDV vehicles or more</li> <li>Change in daily average speed of 10kph or more</li> <li>Change in peak hour speed of 20kph or more</li> <li>Change in road alignment of 5m or more</li> </ul>	Yes, Positive	The impact on air quality has been assessed using MECs and AMAT and is valued to be £0.002m (2010 PV) over the 30-year appraisal period. The increased car park capacity as part of the scheme is anticipated to increase mode shift from private car users to park and ride users, resulting in less traffic and improved air quality. However, for the area surrounding the station, there is likely to be more traffic which will reduce air quality. Additionally, there will be mode shift to bicycle users as a result of the new cycle parking facilities, increasing air quality. These benefits are anticipated to be modest and therefore it is not considered proportionate to assess the impact across different social groups.	No
Accidents	Any change in alignment of transport corridor (or road layout) that may have positive or negative safety impacts, or any links with significant changes in vehicle flow, speed, %HGV content or any significant change (>10%) in the number of pedestrians, cyclists or motorcyclists using road network.	Yes, Positive	Accidents benefits have been calculated using the MECs approach and AMAT tool and is estimates to be £0.11m (2010 PV) over the 30-year appraisal period. The scheme anticipates mode shift from private car to park and ride due to the increased car parking spaces, therefore the overall reduction in highway kilometres travelled will reduce the number of highway accidents. Clear walking and cycle routes surrounding and throughout the station facilities will reduce the risk of accidents between pedestrians, cyclists and cars. These benefits are anticipated to be modest and therefore it is not considered proportionate to assess the impact across different social groups.	No
Security	Any change in public transport waiting/interchange facilities including pedestrian access expected to affect user perceptions of personal security.	Yes, Positive	The scheme includes the installation of CCTV in the station premises, including car and cycle parking coverage, and the area surrounding the station is to be well-lit. Although beneficial, these benefits will be experienced with the vicinity of the train station and therefore are not anticipated to disproportionality benefit any social groups.	No
Severance	Introduction or removal of barriers to pedestrian movement, either through changes to road crossing provision, or through introduction of new public transport or road corridors. Any areas with significant changes (>10%) in vehicle flow, speed, %HGV content.	No	The scheme doesn't include measures that will change any barriers to pedestrian movement.	No
Accessibility	Changes in routings or timings of current public transport services, any changes to public transport provision, including routing, frequencies, waiting facilities (bus stops / rail stations) and rolling stock, or any indirect impacts on accessibility to services (e.g. demolition & re-location of a school).	Yes, Positive	The scheme includes a new building which will provide accessible facilities such as a ticket desk and toilets. The scale of this impact is considered to be relatively minor and therefore it is not considered proportionate to proceed to the second stage.	No
Affordability	In cases where the following changes would occur; Parking charges (including where changes in the allocation of free or reduced fee spaces may occur); Car fuel and non-fuel operating costs (where, for example, rerouting or changes in journey speeds and congestion occur resulting in changes in costs); Road user charges (including discounts and exemptions for different groups of travellers); Public transport fare changes (where, for example premium fares are set on new or existing modes or where multi-modal discounted travel tickets become available due to new ticketing technologies); or Public transport concession availability (where, for example concession arrangements vary as a result of a move in service provision from bus to light rail or heavy rail, where such concession entitlement is not maintained by the local authority <sup>[1]</sup> ).	No	The scheme includes more car parking and cycle spaces. Therefore there is likely to be a shift from private car/bus users to cycling and park and ride users resulting in lower transport and vehicle operating costs. However, the rail fare and car parking charges will now be incurred and hence the impact on affordability can be considered neutral. It is assumed that changes in cost would be considered by individuals when making their mode choice, and there is no removal of services that would force individuals to switch modes. Therefore it is not considered that any changes in affordability would disproportionately impact any social groups.	No

# Appendix G

## **West Berkshire Council Project Cost / Risk Criteria**

Low Spend – Up to £100,000

Medium Spend – £100,000 to £500,000

High Spend – Over £500,000

In determining the risk profile of the project, three areas of risk are considered; Business Risk, Construction Risk and Procurement Risk. Consideration should be given to the statements below or as amended to reflect the nature of the project.

### **Business Risk:**

- If the project fails to deliver to its stated time, cost and quality criteria it will seriously impact on the ongoing business of the organisation.

### **Construction Risk:**

- The project is technically complex.
- The project impacts on (or is impacted by) adjacent properties.
- The project depends on input from or cooperation from adjacent suppliers.

### **Procurement Risk**

- There are few contractors able or willing to tender for and construct this project.
- The market for contractors able to tender for and construct this project is overheated.

*In the context of Highway projects, a yes against any of the above would constitute a High Risk scheme. However it should be noted that numerous yes's (or a 'Yes' in all three risk areas) would require a radically different approach to procurement and managing relationships during the design and construction phase.*

# Appendix H

Date	2020												2021												2022				2023										
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Submission of Business Case																																							
BLTB meeting																																							
<i>Walking and Cycling Improvements</i>																																							
Detailed Design																																							
Contract																																							
Construction																																							
<i>Station area works</i>																																							
Form 001(GRIP4) NR approval																																							
Detailed Design																																							
Prior Approvals Application(s)																																							
Construction																																							
<i>Access for All scheme (delivered by Network Rail)</i>																																							
Detailed Design																																							
Construction																																							