
Newbury Railway Station Improvements

Addendum 1 (May 2020)



**Thames
Valley
Berkshire**
LOCAL ENTERPRISE PARTNERSHIP



West Berkshire
COUNCIL

Addendum Report 1: Newbury Railway Station Improvements

1. Introduction

- 1.1 This addendum report has been prepared following further detailed information relating to the already agreed scheme at Newbury Railway Station (ref 2.24). West Berkshire Council and Great Western Railway (GWR) are joint promoters of this scheme.
- 1.2 The business case for the Newbury Railway Station Improvements and Interchange Enhancement scheme was considered by the Berkshire Local Transport Body (BLTB) in July 2018. In line with the advice of the independent assessors, the BLTB granted conditional approval of the scheme. These conditions were satisfied by the scheme promoters in February 2019 and, as a result, full financial approval of the scheme was granted.
- 1.3 Following further detailed work on the scheme, some improvements and changes to the design are proposed. These changes relate to (i) entrance / exit enhancements, (ii) cycle hub location and design and (iii) the business start-up provision.
- 1.4 Each of these improvements carry an additional cost to the overall scheme. A bid was therefore prepared in response to the BLTB's 'call for bids' issued in November 2019 and was submitted at the end of January 2020.
- 1.5 At the BLTB meeting in March 2020 it was agreed to allocate available LGF funding to the highest priority element of the changes relating to the entrance / exit enhancements (the gateline arrangements). It was also agreed that the other two elements would, together, be included in a new 'pipeline' list of schemes which could be allocated further LGF funding if it became available. This was a prioritised list of schemes and the Newbury Station project was ranked second.
- 1.6 This addendum (Addendum Report 1) considers the first prioritised element of the scheme enhancements (the gatelines). It relates to the original business case for the Newbury Railway Station Improvements and Interchange Enhancement Scheme but also links closely with a second addendum report which discusses the further 2 enhancements proposed.

- 1.7 The following sections of this addendum report outline the justification and evidence for the gateline arrangement enhancements. Section 2 provides further detail of the works proposed and section 3 sets out the strategic importance of this change to the original scheme and the problem it seeks to solve.
- 1.8 The Economic and Financial cases are detailed in sections four and five respectively and section six summarises the delivery and risk elements of the project.
- 1.9 Finally, section seven provides a summary of this short report.

2. Scope of Works

- 2.1 Newbury Station is currently served by 3 standard gates (ticket barriers) and one wide-aisle gate for access to Platform 1. The gatelines providing access to platform 2 are situated on the platform itself and consist of a further 3 standard gates and one wide-aisle gate.
- 2.2 The gateline arrangement proposed in the full business case indicated 3 standard gates and 2 wide-aisle gates to serve Platform 1. The same quantity of 3 standard and 2 wide-aisle gates were also proposed to serve Platform 2. The design incorporated these into the station building taking them away from the on-platform location in order not to impede passenger flows and to free up valuable platform space for passengers waiting to board trains and those alighting.
- 2.3 Due to a delay in being able to undertake up to date pedestrian modelling for Newbury Station, the proposed gateline arrangement in the July 2018 business case (and described in 2.2 above) was based on the best information and knowledge available from other stations and from expertise within GWR.
- 2.4 The delayed pedestrian modelling exercise was undertaken in order to check that the proposed number of ticket barriers would minimise congestion and ensure the efficient functioning of the station. The outputs from this study highlighted that the proposed arrangements needed revisiting.
- 2.5 The pedestrian modelling study demonstrated that the gateline provision and entrance/exit arrangements as originally proposed, would present a safety issue for passengers. Due to the future demand forecasts for Newbury, as a successful and very well used station, and Network Rail requirements for passenger flows and clearance times, the number of gatelines originally proposed would be insufficient. The gateline arrangement proposed in the full business case would result in

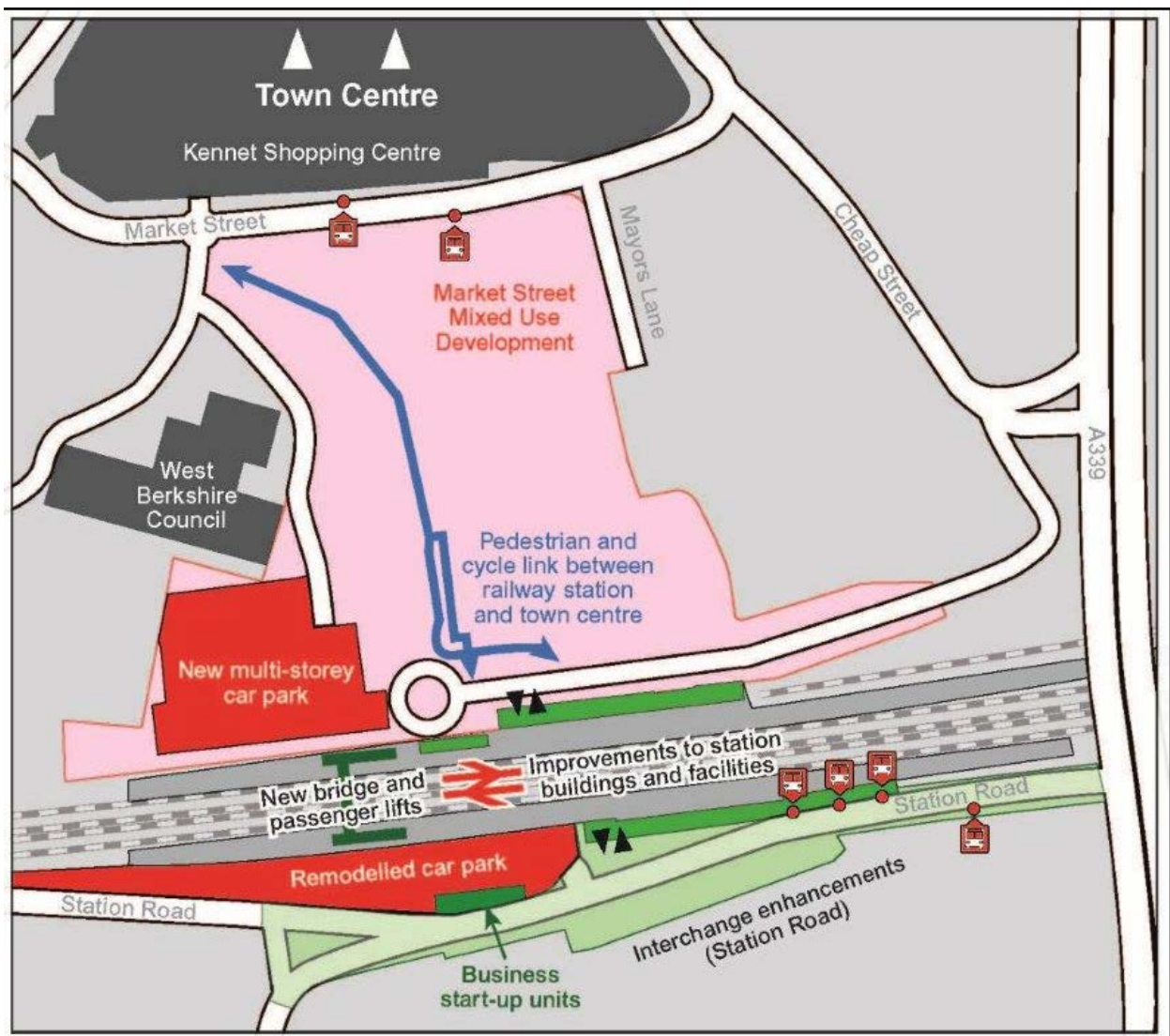
congestion particularly in the morning and evening peak for passengers exiting the station. This would present a significant safety risk for passengers 'backing up' as they try to exit the station, resulting in an overcrowded platform area. The safety risk is such that this would not adhere to the Network Rail safety guidelines for throughput of passengers to disperse out of the station when trains are arriving and departing. For stations with through platforms, Network Rail states that all exiting passengers must be able to pass through the gateline within two minutes. This is to prevent the risk that passengers queue back onto the platform, increasing the likelihood that they will be too close to the platform edge and also reduce the space available on the platform for passengers interchanging or boarding trains to do so safely. The gateline arrangement presented in the full business case would not meet this two minute clearance requirement, and as such would not be acceptable to Network Rail safety standards. Overall, the provision of an insufficient number of gatelines reduces the ability for a station to function well for passengers, impacting on their experience of the station as well as compromising their safety.

- 2.6 As a result of this work, the new proposal seeks to deliver additional ticket barrier capacity serving Platforms 1 & 2. The overall scheme for Newbury Station is making the best use of the existing station buildings (which are of local importance architecturally). The options for accommodating these additional requirements are, therefore, limited. The issue that was highlighted in the study related to the exit capacity and the congestion and delays that would be experienced by passengers when trying to leave the station platform. A separate 'exit only' facility has therefore been included in the designs for Platform 2 which provides one standard and one wide-aisle gateline (in addition to the 3 standard and 2 wide aisle gates already included in the design). Additional capacity is also required for passengers on Platform 1, consisting of two further standard gates (bringing the total for Platform 1 to 5 standard and 2 wide aisle gates). Other amendments to the station layout design have had to be made to accommodate this additional provision within the footprint of the station buildings.
- 2.7 It is this work described in 2.5 which forms the focus of this addendum to the business case. It is, however, part of the wider development of the scheme design and the additional enhancements that have been identified to increase the benefit to station users. This additional package of amendments covered in Addendums 1 and 2 to the business case together seek to provide a scheme which adequately provides for predicted growth and ensures the benefits are realised into the future.

3. Strategic Impact

- 3.1 The amendments considered in this addendum report are part of the overall scheme for upgrading Newbury Station. The overall scheme forms part of a masterplan for the area of Newbury around the station. The elements forming this masterplan are shown in Figure 1 below and include a significant mixed use development at Market Street delivering 232 new homes, a new multi-storey car park, improved links between the town centre and the station focusing on pedestrians and cyclists, an new bridge at the station enabling full access through the provision of lifts and much needed enhancements to transport interchange facilities.
- 3.2 The growth at Newbury station has been significant over the last few years, which the electrification programme, longer trains and enhanced timetable on the Newbury & Kennet Line has further supported.

Figure 1: Masterplan of developments around Newbury Station



Links to the SEP and BLIS

3.3 The overall scheme for Newbury Railway Station and how it ties in with the wider masterplan for the area links well with the Thames Valley Berkshire's Strategic Economic Plan (SEP). This has been led by the Local Enterprise Partnership and is a key focus for delivery across the Thames Valley Berkshire area. Whilst the element that this submission is concerned with in itself will have a small impact on delivering the SEP, it contributes to the overall scheme being delivered in the right way taking into account all the evidence available. In the submission for the original scheme the following links to the SEP were identified. Where necessary the text has been updated to reflect design changes and developments.

- Supports **Section 1 (6) Functioning towns: Infrastructure within towns:** The project will deliver a high quality sustainable interchange and improved station environment that will better serve Newbury town centre and help make the station a prominent gateway for passengers arriving in Newbury. It will also enhance the proposed redevelopment of the Market Street area of Newbury town centre immediately adjacent to the north of the northern entrance to the station and provide a more clearly defined pedestrian and cycle route between the station and the main town centre retail area.
- Supports **Section 1 (6) Functioning towns: Town centre investment:** The project will involve substantial improvements and rejuvenation to the buildings within the railway station. This will include relocation of the ticket office to be nearer to the proposed new station footbridge (including lifts) which will also be better connected to the Market Street redevelopment area and the routes to the town centre passing through it. On the southern side of the station, the project will result in the demolition of a number of unattractive single storey buildings. These will be replaced by new facilities that will make the southern side of the station more attractive. There will be spaces created that offer commercial letting potential for the train operator, creating jobs in this area. These improvements will help to increase footfall thereby supporting retailers in the southern end of the town centre and around the railway station.
- Supports **Section 3 Promote local sustainable transport networks:** The proposal will provide safer and more defined pedestrian and cycle routes for both entrances to Newbury station (north and south). Improvements to the station itself will result in an increase in secure cycle parking. The improvement to interchange at Newbury railway station will help to accommodate the forecast increase in rail passenger growth and will complement the investment made by the Government and the rail industry through electrification of the Berks and Hants line to Newbury (as part of the Great Western Electrification project) and the introduction of higher capacity rolling stock. This will provide more attractive options for travel between Newbury and Reading/London.

3.4 To follow on from the SEP, Thames Valley Berkshire LEP has developed 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 at Newbury Station 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 wider context and masterplan for the station upgrade and surrounding projects includes the Network Rail delivery of the new bridge with lifts making the station fully accessible for the first time. The upgrade work complements this and links in well with the new bridge helping to 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 creating a high quality environment for rail travel, great facilities for cycling and interchange between different modes.

The provision of electric vehicle charging points within the multi storey car park will help to reduce the wider carbon footprint.

The improvements at Newbury Station will assist in making travel by train more attractive for a range of purposes including travel to Heathrow. The much improved interchange facilities at Newbury combined with the general recent investment in

the line and associated benefits will improve journeys to such key destinations in our region.

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

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

The overall improvements to Newbury Station and the surrounding area help to create a high quality gateway to the growing and ambitious town of Newbury. Newbury is full of cultural and economic activity and, with the delivery of this scheme, these activities will be supported and served by a top quality rail station and sustainable transport hub.

Options for enhancement

- 3.5 The pedestrian modelling report, which involved undertaking a passenger number survey, review of the resulting data and calculating the number of gatelines required for each station entrance, identified options for accommodating this and future forecast growth in passengers at Newbury Station. These options ranged from maximum to minimum scenarios for entrance/exit capacity. In order to provide a safe, comfortable and user-friendly station facility for passengers, the minimum scenario (of five standard and two wide-aisle gates) has been adopted for Platform 1 and a blended scenario (of four standard and three wide-aisle gates) for Platform 2. The blended approach for Platform 2 has been adopted due to the constraints within the station building footprint, and need to create an additional 'exit-only' gateline. Whilst what is proposed in this addendum is the minimum option identified by the report for Platform 1 and a medium option for Platform 2, it provides the required enhancement and keeps additional costs to a minimum. It is also possible within the constraints of the station building arrangements and, most importantly, the modelling shows that it will minimise congestion and reduce the risk that the station is not able to accommodate future passenger numbers which could constrain growth in the Newbury and Thames Valley corridor.
- 3.6 As well as the consideration of the options presented by the pedestrian modelling work, it is important to outline what else has been considered as a way forward for the scheme at Newbury Station. The Council and GWR as joint promoters have considered a '**do minimum**' option. This would be an option that looks to continue to deliver a scheme that improves Newbury Station within the current funding package that has already been secured.

- 3.7 If this option was pursued some benefits of the original scheme would not be fully realised due to the new information demonstrating that additional provision of gatelines, and improved access and egress to the station, is required. This will reduce the actual value for money delivered by the original scheme and would not provide a station that is fit for purpose in terms of being able to accommodate the forecast future growth.
- 3.8 In addition, the plans for Newbury Station have to be approved by Network Rail through their GRIP Approval in Principle process, and other regulatory requirements such as Station Change. Given the evidence from the pedestrian modelling work showing what is required in order to minimise congestion and ensure passenger safety at the station, Network Rail would not grant approval for a scheme that does not respond to this evidence. The whole scheme for Newbury Station could therefore be in jeopardy if approval is not forthcoming from Network Rail for the improvement works. The critical nature of the delivery of this scheme amendment is why the gateline element has been prioritised above the other two proposed enhancements (dealt with in more detail in Addendum 2).
- 3.9 Strategically, therefore, the enhancements proposed to the gateline arrangements will provide the necessary capacity for forecast growth and provide the improved efficiency and safety in terms of circulation of passengers around the station. Currently this is impeded due to the current facilities and especially the on-platform location of the gatelines on platform 2.
- 3.10 As detailed in section 3 of the full business case for the overall scheme, the proposals at Newbury have a significant strategic impact. They will support the growth in population in the Newbury area as a result of housing growth including strategic housing allocations. The station scheme looks to encourage and maximise opportunities for sustainable journeys to be made to and from the station.
- 3.11 The scheme also presents the opportunity to complement the recent investment in the railway (such as the Great Western Electrification project) and the current investment in the local area through the redevelopment of the Market Street site (referred to in Figure 1).
- 3.12 The amendment proposed in this addendum will help to fully realise the strategic benefits of the overall scheme as it enables the scheme to gain full approval from Network Rail and progress to delivery.

4. Economic Case

- 4.1 The Full Business Case (FBC) for Newbury station improvements was submitted to Berkshire Local Transport Body (BLTB) in July 2018, and following this the scheme was granted full financial approval in February 2019. The economic assessment within the FBC demonstrated a strong scheme with a wide range of quantified and unquantified benefits. It delivers a benefit cost ratio of 3.8:1 representing high value for money.
- 4.2 Further detailed design of the scheme highlighted three areas of the FBC scheme design for refinement: entrance/exits (gateline) capacity, cycle hub location and business start-up provision.
- 4.3 As detailed in section 2 above (particularly 2.5), the additional gateline capacity is required in order to adhere to Network Rail safety standards and gain their approval for the scheme. The economic appraisal of increasing the gateline provision at Newbury station and the impact of this on the value for money of the overall scheme is set out below.
- 4.4 In order to understand the impact on value for money, a sensitivity test has been undertaken in which the costs and benefits of the additional gateline capacity have been incorporated into the scheme appraisal. Table 1 below sets out the results of this sensitivity test compared to the FBC.

Table 1 – Gateline capacity sensitivity test results

£m, 2010 PV	FBC station improvements	FBC station improvements plus gateline capacity increase
Present Value of Benefits (PVB)	3.35	3.48
Present Value of Costs (PVC)	0.88	1.20
Net Present Value (NPV)	2.47	2.28
Benefit Cost Ratio (BCR)	3.8:1	2.9:1

- 4.5 Incorporating the costs and benefits of the gateline reduces the BCR from 3.8:1 to 2.9:1, still above the High value for money threshold of 2:1. As anticipated, the appraisal of the gatelines in isolation does not deliver value for money in terms of conventional economic appraisal. The impact of the infrastructure is only experienced in peak periods when wait times at the gateline are reduced for passengers, and therefore are outweighed by the costs. However, the benefits of delivering the increased gateline capacity exceed those that can be monetised in the appraisal, as delivering this infrastructure is essential in order for the wider improvements to Newbury station to come forward. The improved infrastructure over and above that proposed in the FBC will also provide real benefit to passengers using Newbury Station and enable the station to continue to operate well into the future.

5. Financial Case

- 5.1 A Thames Valley Berkshire LEP contribution from available Local Growth Funds of £300,000 is sought for the Platform 1 & 2 entrance/exit enhancements.
- 5.2 Within the full business case costs for the station buildings / facilities enhancements element of £5.184m, a cost allowance was allocated within the GWR direct costs for gate supply, relocation and installation and associated civils costs of £145,500 (less contingency and overheads). As outlined above, this was predicated on a gateline provision with three fewer gates than now required and without the additional civils work required for widening and adding new entrance/exit locations in the station. As a result of the requirements for an increased number of ticket barriers and associated additional civil engineering work required, this has resulted in an increase in material and contractor costs of £300k.
- 5.3 Table 2 below sets out the spending profile for the additional funding sought.

Table 2: Proposed spending profile – Platform 1 & 2 entrance / exit enhancements only

Source	Year	2019/20	2020/21	Later years	Total
Business rates retention pilot					
Growth Deal or other Government Grant	Capital		300,000		300,000
	Revenue				
Other public sector	<i>Please specify</i>				
CIL/s.106					
Private sector- A GWR contribution has been ringfenced for additional outputs referenced in Addendum 2	<i>Great Western Railway (subject to First Group & DfT approvals)</i>				
Total			300,000		300,000

- 5.4 As indicated in Table 2, a GWR contribution is proposed for the overall additional costs associated with all 3 elements of the enhanced design for Newbury Station. In terms of where the GWR contribution (£200,000) will be used, this will be determined by timescales for delivery and access to funding. For these reasons it is not proposed to direct the GWR funding to the gateline capacity enhancements.

6. Delivery and Risk

6.1 A high-level programme showing anticipated project milestones is set out below in Table 3. This indicates anticipated completion of the scheme within the window to Spring 2021.

Table 3: Project Milestones

Task Name	Start	Finish
Commercial & Procurement		
TVB LEP Addendum approval	Jun-20	Jun-20
GWR/WBC Funding Agreement variation	Jun-20	Jul-20
Gateline tender period	May-20	Aug-20
Contract Award (main contractor)	Sep-20	Oct-20
Gateline manufacturing	Sep-20	Jan-21
Design and Consents		
GRIP 4 Network Rail Approval in Principle	Mar-20	Jun-20
Detailed Design	Jun-20	Oct-20
Construction Phase		
Mobilisation	Nov-20	Dec-20
HAZOP	Nov-20	Nov-20
Start on Site	Jan-21	Mar-21

6.2 The key dependencies for the entrance/exit enhancements are as follows:

- **Phasing plan:** the works will need to be carefully considered as part of the main station works and phased to minimise disruption to station operations and passengers as much as possible.
- **Network Rail approvals:** Form 1 approval in principle and any other required NR consents (including Landlord’s Consent) are received for the main scheme
- **Product availability:** supplier is able to manufacture and supply gatelines within the programme timescales

6.3 The risk register below (Table 4) sets out the key risks associated with the gateline enhancements and a plan for their mitigation. In addition, regular Project Team meetings between GWR, West Berkshire Council and Network Rail (as required) are scheduled to discuss programme and risks. This group has an established escalation route through the main LGF scheme to escalate issues that cannot be resolved at Project level. This is detailed in the Management Case of the full business case (specifically Figure 7 in Section 7 of the document).

6.4 The overarching risk associated with this scheme is that if the additional funding is not secured to deliver the required additional gates and improved entrance/exit arrangements, the whole LGF scheme will not be able to proceed, as Network Rail will not endorse the design as proposed in the full business case.

Table 4: Risk Register

Reference	Stage	Risk	Mitigation
NLGF/001	GRIP 4/5	Form 1 (M&E +Civils) NR sign off delayed and has implication on Form 2 & 3 approval	Escalate to REM/ASPRO meeting and request that NR Project Sponsor investigates/expedites
NLGF/002	GRIP 4	Pedestrian modelling scenarios are not sufficient to secure NR approvals	Independent pedestrian modelling report has been produced and minimum and blended scenarios have been reviewed.
NLGF/003	GRIP 4/5	Risk of manufacturing delay if F001 is not signed off	Escalate to REM/ASPRO meeting and request NR Project Sponsor investigates/expedites. Maintain dialogue with preferred supplier to understand critical path decision points
NLGF/004	GRIP 5	Supplier timescales for gateline insufficient to meet programme timescales	Early tender timescales to test the market. Known supplier has been identified by procurement and programme constraints understood
NLGF/005	GRIP 6	Start Date/ Bring into use may be affected due to COVID-19	The COVID-19 crisis creates uncertainty on when the contractors will be able to work on site or carry out works. Situation to be monitored

7. Summary

- 7.1 Following further detailed work, three elements of scheme improvements and changes to the design are proposed. The necessary increase in gateline capacity is one of these elements and has been the focus of discussion and assessment in this addendum report.
- 7.2 The gateline enhancements have been identified by scheme promoters and BLTB as a priority for the Newbury Station scheme and funding was provisionally allocated their delivery at the March 2020 BLTB meeting.
- 7.3 The increase in capacity in gateline provision will enable the efficient and safe circulation of passengers during the times of greatest demand in the AM and PM peak periods.
- 7.4 The enhancement forms part of the wider Newbury Station improvement scheme which is focussed on providing benefits for passengers, the local and regional economy, housing delivery and the environment. Further details of the benefits of the wider scheme, which has a strong value for money score, are set out in the full business case available on West Berkshire Council's website (www.westberks.gov.uk/sep).
- 7.5 The cost of the gateline enhancements (above that which was originally proposed) is estimated at £300,000. This is sought from available LGF funding and the works will be delivered in early 2021.
- 7.6 The appraisal of the gatelines in isolation does not deliver value for money in terms of conventional economic appraisal. The impact of this amendment to the scheme on the original BCR sees it change from 3.8:1 to 2.9:1. The overall amended scheme remains strong and continues to deliver in the 'High value for money' category.
- 7.7 The benefits of delivering the increased gateline capacity exceed those that can be monetised in the appraisal, as delivering this infrastructure is essential in order for the wider improvements to Newbury station to come forward. The improved infrastructure over and above that proposed in the FBC will provide real benefit to passengers using Newbury Station and enable the station to continue to operate well into the future.