



4. That authority is delegated to the Director of Economy, Transport, and Environment, in consultation with the Head of Legal Services, to make the arrangements to complete the scheme design and Highways England's Approval processes; enter into highways agreements for dedication and adoption of any part of the M27 Junction 10 works and work on Highways England's asset; finalise the contractual documentation, including minor variations; and to implement the scheme.
5. That the Director of Culture, Communities, and Business Services be requested to progress, if appropriate, any transfers of land identified in this report under the powers delegated by the Executive Member for Policy and Resources.

### **Executive Summary**

6. The M27 Junction 10 Improvement is a high cost, complex and challenging scheme, which has been the subject of an evolving financial context and delivery picture since the County Council took on the role of Scheme Promoter in early 2018. Further to the completion of Stage 3 of Highways England's approval process in March 2021, a report was taken to the County Council's Cabinet on 13 July 2021 seeking approval for the County Council to progress to the next stage and take on the role of Delivery Body subject to funding confirmation, and a Memorandum of Understanding and Section 6 Agreement with Highways England.
7. Subject to these conditions being met, the Cabinet report secured approval for the "Director of Economy, Transport and Environment, in consultation with the Leader, the Director of Corporate Resources and the Head of Legal Services to commence a staged procurement process with spend up to £97.55 million." The approval was also subject to the approval of a Project Appraisal by the Executive Lead Member for Economy, Transport and Environment.
8. In accordance with the above, this Project Appraisal seeks approval to commence the tendering process to procure an appropriately experienced contractor through the County Council's multi-supplier highway works Generation 4-3 Framework (Gen 4-3) to complete the design and approval work and to deliver the scheme.

### **Background to Scheme**

9. The M27 Junction 10 Improvement scheme will upgrade the existing partial moves motorway junction located north of Fareham and adjacent to the A32 to an all moves interchange to help facilitate 6,000 new homes and jobs at the proposed Welborne Garden Village. Without the completed junction improvement, Welborne Land Limited (WLL) will only be permitted to develop 1,160 homes on the site, hence the scheme is critical to lever in the investment aligned to this regionally significant development.

10. In early 2018, the County Council agreed to become the Scheme Promoter and commenced development and design work for the M27 Junction 10 Improvement, following a request from the Rt Hon Chris Grayling, the then Secretary of State for Transport. Since that time significant progress has been made to advance the design to detailed stage and to secure Highways England's Approvals up to the completion of Stage 3 of its Product Control Framework.
11. Funding to progress the scheme development and design work ran out at the end of March 2021, following which time the County Council stood down its team of consultants to consider the optimum way forward and to allow time for high level dialogue with stakeholders at the Ministry of Homes Communities and Local Government and Homes England to be undertaken. In June 2021 Homes England confirmed that £750,000 had been approved from its Capacity Fund to enable re-mobilisation of design work on Junction 10, and in July 2021 it advised that a further £41,250,000 could be made available from its Housing and Infrastructure Grant funding towards delivery of the scheme. This remains subject to a Grant Determination Agreement which is currently being progressed. In July 2021, Welborne Land Limited (WLL) also agreed, subject to completion of a Section 106 Agreement, to increase its contribution towards the scheme to £40,000,000 and offer a further £10,000,000 contingency, should it be required.
12. Further to the likely resolution of immediate and longer-term funding matters, on 13 July 2021, the County Council's Cabinet agreed that work could recommence on the scheme and that the County Council could take on the role of Delivery Body, subject to the completion of all funding Agreements and a Memorandum of Understanding with Highways England covering risks associated with working on the Strategic Road Network. This is a critical step forward for the scheme, which will be challenging for the County Council in terms of the level of engineering complexity and risk management but should provide an enhanced reputational advantage and credibility amongst key government stakeholders and funding bodies which will help secure funding for future major schemes in the County.
13. In accordance with the decisions from Cabinet, work is currently ongoing to agree a Memorandum of Understanding with Highways England and to establish a core project team and re-mobilise consultant resources to further progress the scheme development and design stages. This work cannot be completed without the critical input of the supply chain who will deliver the works. The complex nature of the structural components of the scheme will require specialist input to ensure that the design is completely compatible with the way the contractor will deliver these elements. This Project Appraisal is required to enable a contractor to be procured to undertake the next stages of the design.

14. Following confirmation of the Orders by DfT there will be an initial Gateway Review point, at which stage the County Council could decide to not proceed further with the scheme. However, the more significant second Gateway Review point, which will take place following the completion of the design and approval work, and at the point a final 'Total of the Prices' is provided by the contractor, will be critical to informing the level of risk prior to full commitment by the County Council to scheme delivery. At this stage the County Council will consider the estimated costs and all other risks against the budget before making a final decision regarding whether to proceed to delivery or not.
15. This Project Appraisal will set out the approach to procurement, which is tailored to the unique requirements of this scheme, followed by a summary of the financial details, programme, scheme details and key risks. The report will also outline necessary land transactions and summarise next steps in this regard.

### **Approach to Procurement**

16. In 2019, the County Council advertised its multi-supplier framework agreement via OJEU in line with Regulation 33 of the Public Procurement regulations. Following competitive tendering the resulting Generation 4-Three 2020-2024 Civil Engineering, Highways and Transportation Collaborative Framework (Gen4-3) was commenced in April 2021. Gen4-3 was specifically designed to cater for complicated civil engineering projects including those within the value range (£8million to £150million). The Gen 4-3 suppliers, which cover the higher value single project range that the M27 Junction 10 scheme falls into, consist of four national/international contractors with the skills necessary to undertake large infrastructure projects.
17. The list of contractors on this framework are:
  - Milestone Infrastructure (formerly Skanska);
  - Tarmac;
  - Hochtief; and
  - Volker Fitzpatrick.
18. As the overall headline conditions of contract and financial and technical abilities of the framework suppliers have already been assessed in terms of earlier supplier engagement, the use of Gen 4-3 has several advantages when choosing a contractor for the scheme:
  - there is no need for a formal market engagement or a selection questionnaire stage;
  - the suppliers are already in contract with the County Council through a framework agreement;
  - the standard terms and conditions of contract are accepted by the suppliers;
  - the project work information can be slightly reduced through use of standard format and text;
  - the overall procurement timetable can be shortened when compared with a bespoke open tender; and

- the commercial viability of these suppliers has been market tested through the submission of a NEC4 contractual fee percentage which applies throughout the duration of the framework.
19. The approval of this Project Appraisal in accordance with the County Council's contract standing orders will enable the contractor/supplier to be procured to complete the design and approval processes and construction of the M27 Junction 10 following the publication and advertisement of all procurement documentation, through the Gen 4-3 framework outlined above.
  20. The complex nature and high value of this scheme and the amount of contractor design input and risk allocation, mean that this work order will be slightly different from the norm. This scheme has specific technical difficulties that will require a significant amount of additional tender documentation (known as Z clauses), scope and specification. A longer tender period and detailed tender management process will be required to ensure liabilities of the parties are understood. It is anticipated that the contractors will be given an extended time period, rather than the usual 6 weeks, to review the tender package and return their offers. Once offers are received, the County Council will appraise the tender returns prior to awarding the tender. It is currently forecast that from receipt to award will take 4 to 6 weeks. The proposed detailed approach is outlined below.

### **Proposed Works Order Model**

21. The traditional work order model used by the County Council in procurement of its highways capital works contracts is the New Engineering Contract 4 (NEC4) Option B (Bill of Quantities) where the contract documents are prepared and fully designed using the Highways Specification, and a bill of quantities prepared by the Council's Contract Services Team Quantity Surveying team. The Gen 4-3 framework documents allow other options to be used (Options A to E are available) which reflect the different priorities required from a project.
22. The M27 J10 project involves a requirement for the supplier to finalise the detailed design and in particular the method used to construct the underpass 'box' and aligned monitoring and temporary works. Each contractor may have a different preferred construction method and consequently this will need to be reflected in the design prior to construction. In such cases the scope and specification will be focused upon outcomes rather than inputs. Given the requirement for design work, a detailed bill of quantities would not be appropriate as part of the tender return and therefore the financial assessment of the project will be undertaken using an Activity Schedule (Options A or C).

23. In view of the capped budget for the scheme and to help ensure costs are managed carefully throughout the contract, a collaborative approach is suggested whereby a target cost will be used to control the post contract performance. The NEC4 Option C provides for a Target Contract with Activity Schedule where cost savings may be shared between the parties and a limit for cost overruns be set.
24. The preliminary design and significant parts of the detailed design have already been undertaken by Atkins, sourced through Lot 3 of the Strategic Partner Contract to ensure the project can be constructed to line and level and allow a budget estimate to be produced. These designs will be presented to the Gen 4-3 suppliers as 'for information only' with the onus on the supplier to fully design the project for construction to accepted Highways Standards. The liability for design will require specific Z clauses (in addition to standard NEC4) to ensure the main responsibilities are understood. This checking procedure will require additional time during the tender period for the supplier to undertake this task.

### **Award Procedure**

25. Selection of suppliers to gain a place on the Gen 4-3 framework was on a quality/price ratio of 80/20. The four suppliers were chosen from quality responses to eight quality criteria placed in the framework document. As these criteria are largely relevant to this project, it is not proposed to request the suppliers to restate them. Instead, a small number of quality elements will be included within the mini competition which relate to the construction methods and approach in delivery of this particular project, along with elements relating to social value and climate change. The content of these quality questions and assessment of tender responses will be compiled and marked by a panel selected for their relevant expertise and moderated by the project management team.
26. As the selection of suppliers onto the Gen 4-3 framework was determined by a high-quality threshold it is recognised that all of the suppliers have the necessary technical and financial abilities to undertake this project. The assessment of the offers received will therefore concentrate upon the commercial efficiency of each submitted bid and the proposed approach to managing key elements of the project through the completion of the design and construction phase.
27. A significant portion of the design responsibilities for this project rely upon innovative solutions from tenderers and this will be reflected in the successful bidder being identified through a combination of price, quality and programme, although construction costs are likely to form a key focus in the assessment of the tender submissions. Although the parameters and scope of the project are set through the contract documents, the final award will be based upon a thorough and detailed analysis of the bid. This may slightly affect some of the detail contained in this report and any significant variances will be subject to a further report should this be applicable.

## **Key Contractual Considerations**

28. The call off order for the M27 Junction 10 project will use, in the first instance, the standard terms and conditions incorporated within the Gen 4-3 Framework for NEC4 Option C Target with Activity Schedule. The secondary option clauses, which are also contained within the framework, will be applied as appropriate to a project of this size and complexity and in line with the requirements of the County Council's Financial Standing Orders.
29. The Gen 4-3 Framework Z clauses will be incorporated fully into the work order, but these will be supplemented by additional Z clauses which relate to the technical requirements of the project (design and construction liabilities and methods) and those required by the funding bodies or stakeholders which relate to management of the project. The extent of Z clauses will be significant to this work order – but will follow industry norms with many having been used by Highways England for delivery of their large design and build infrastructure projects. The use of Option C provides incentives to the parties to seek financial efficiencies during the construction period.

## **Finance**

### **Scheme Costs**

30. The current base cost estimate for the M27 Junction 10 scheme is £72.8million. This figure does not include any risk/contingency allowance for 'predictable and quantifiable' risks over and above the base cost estimate. It is estimated that including quantified risks to give a more realistic value would increase the cost estimate to around £81million which would be a reasonable and robust working estimate at this stage of the process pre-tender. The costs will continue to be refined.
31. The current estimates included in this report represent the most up to date information available to the County Council, but due to post COVID resources and international pressures with the supply market, volatile prices are being experienced for raw construction materials such as steel bar reinforcement, cement, aggregates and bitumen-based products. Although professional bodies such as the RICS and ICE have made predictions regarding the extent of price rises, these vary widely, and the true extent cannot be ascertained at this stage nor the impact upon competitive tendering. As the scheme progresses the implications of any impacts over and above the allowances made in the quantified risk register will become better understood and a further report will be prepared if appropriate.

32. Following the appointment of the contractor/supplier the estimate will then be further refined during the completion of the detailed design and securing of necessary Highways England's Approvals. Once this work has been completed and the Side Road Orders (Highways Act 1980) are confirmed by the DfT, there will be a second Gateway Review point providing a possible break point for the County Council prior to the start of construction. At this stage all risks, particularly financial ones, will be fully evaluated to inform a decision by the County Council regarding whether to continue with the contract into the delivery stage and continue to act as the Delivery Body for the scheme or whether to terminate the contract. Any decision by the County Council to proceed to delivery or otherwise, remains subject to the funding agreement with Homes England, and the Grant Agreement for the HIG.

### Scheme Funding

33. The current agreed funding towards the project is as follows:

<b>Current Funding Provision</b>	<b>£m</b>
Already provided by Government and Solent LEP and spent	5.55
Homes England Capacity Grant	0.75
Homes England Housing Infrastructure Grant <sup>1</sup>	41.25
WLL Developer Contribution <sup>2</sup>	40.0
<b>Sub Total</b>	<b>87.55</b>
WLL Developer Capped Contingency Fund <sup>3</sup>	10.0
<b>Total</b>	<b>97.55</b>

34. The funding scenario set out above, provides a base budget of £87.55million which will be increased by a further £10million by a developer capped contingency to £97.55million if there is a requirement for additional funding. The additional £10million would be off set against a reduction in affordable homes.
35. Against a current estimated minimum scheme cost of £72.8million (excluding risk/contingency allowance) the available funding would provide a surplus (contingency) of £24.7million, or against the more robust estimate of £81million (including risk/contingency allowance) would provide a surplus of £14.3million.

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<sup>1</sup> HIG Funding is dependent on a formal agreement

<sup>2</sup> Developer Funding is dependent on formal decisions, including completion of a s106 legal agreement

<sup>3</sup> Developer funding for affordable housing to be re-purposed in the event of cost overrun beyond the main budget of £87.5M.

36. It is important to note that the available funding is capped and does not include an under-write or mitigation provision against any over-spend above the capped limit. The County Council agreed at the Cabinet Meeting on 13 July 2021, to take on the role of Delivery Body and to accept the potential uncapped liability following the identification of a potential funding stream, namely the Integrated Transport Capital Funding Block element of the Local Transport Plan annual grant settlement to the County Council from the Department for Transport, which could be re-prioritised to off-set any cost overrun beyond the contingency allowed for within the budget. This funding is around £4.5million annually. Any draw upon this funding would arise at the end of the construction period, and therefore would be a financial planning issue for 2024/5 onwards.
37. The current scheme cost estimate and funds available are summarised below,

<u>Estimate</u>	<u>£ '000</u>	<u>% of Total</u>	<u>Funds Available</u>	<u>£'000</u>
Design Fee	3,714	4	Retained DfT funding	5,550
Client Fee	1,221	1	Homes England Capacity Grant	750
Supervision	4,460	5	Homes England Housing Infrastructure Grant	41,250
Construction (incl risk)	67,869	69	WLL Developer Contribution	40,000
Commuted sum to HE	3,442	4	WLL Developer Capped Contingency Fund	10,000
Additional risk /contingency	16,844	17		
Land	Nil			
Total	<u>97,550</u>	<u>100</u>	Total	<u>97,550</u>

### **Scheme Maintenance**

38. The completed scheme will include assets which will form part of both Highways England and County Council remits for maintenance purposes. In relation to the parts of the scheme which will form part of Highways England's asset a commuted sum to be paid by the Delivery Body, has been agreed at this stage which is £3,441,604.

39. In relation to the future maintenance implications for the County Council the proposals will generate increased maintenance pressures which have been calculated at approximately £367,000 per annum and should be considered when setting future annual highway maintenance budgets.
40. Many of the materials that will be used in the construction of the Scheme are standard materials used elsewhere on the highway. As part of the processes involved in developing the scheme internal consultations have taken place with representatives from the Asset Management team. The detailed design of the scheme has been refined to reduce future maintenance liabilities as far as possible by using robust materials and value engineering, and this process will continue throughout the completion of the detailed design once a contractor to undertake this work has been appointed.
41. As the scheme has progressed through the formal planning process and environmental impact assessments have been approved as part of this process, measures to mitigate the impact of the scheme and protect or improve the environment have been incorporated in the design which have a minimal impact on future maintenance, where appropriate. However, to maintain a balanced approach to the growth agenda and the declared climate change emergency, landscape and environmental mitigation areas that support the scheme will need to be maintained to ensure they remain fit for purpose and need to be accommodated when setting future maintenance budgets.
42. The table below sets out the relevant maintenance figures.

<u>Maintenance Implications</u>	<u>£'000</u>	<u>% Variation to Committee's budget</u>
Net increase in current expenditure	367	0.353%
Capital Charge	3,271	2,152%

### **Programme**

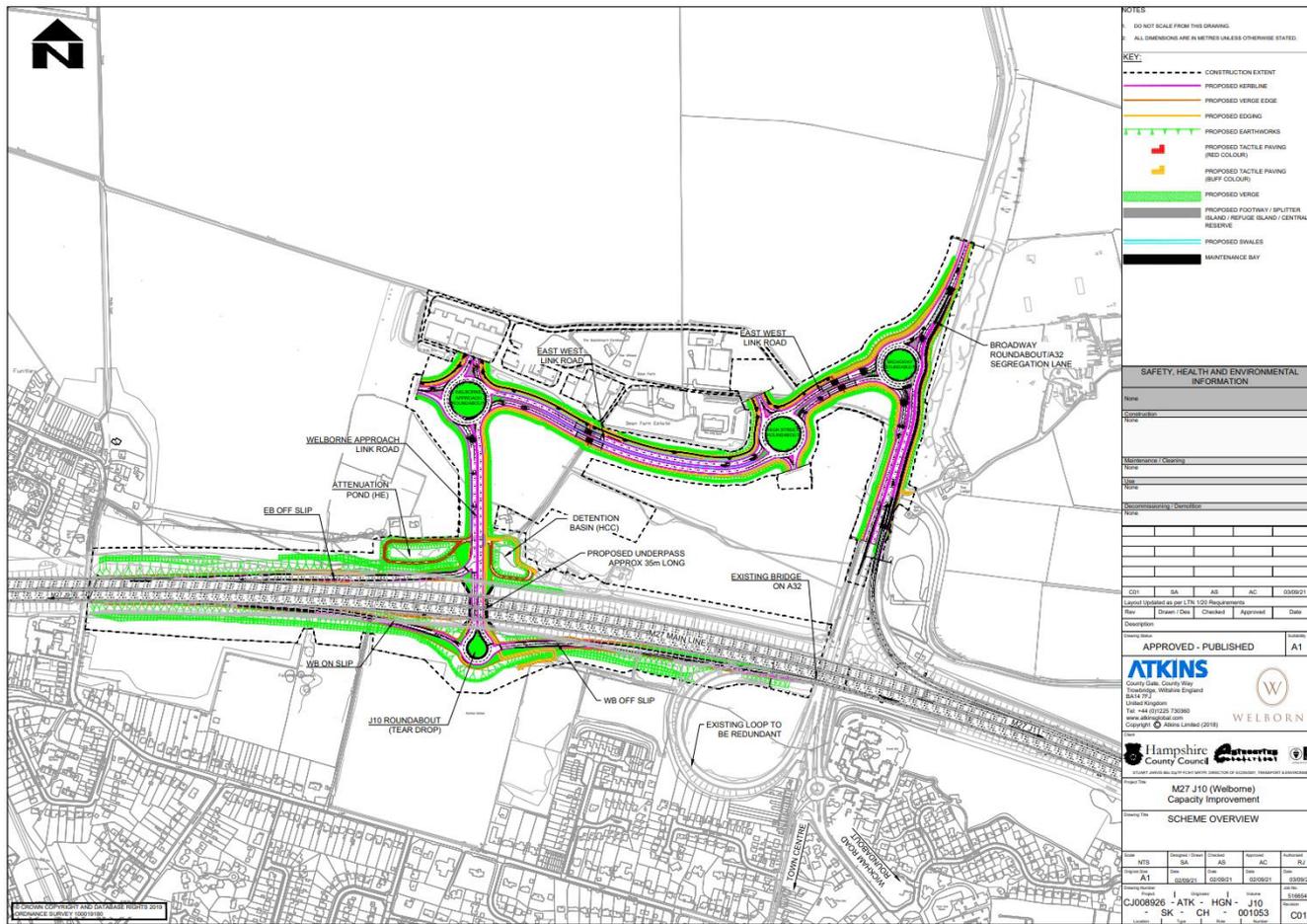
43. The proposals for the development of M27 Junction 10 Improvement were entered into the 2018/19 capital programme year and increased in value from £4million to £4.65million via a Delegated Decisions report in September 2019. The total value in relation to the completion of the development and delivery is £97.55million and this has been updated in the Capital Programme.

44. Alongside the procurement of contractors to complete the design and scheme delivery, which are subject to the approval of this Project Appraisal, work is commencing to progress the Orders process and to commence the agreements which are required to cover necessary dedications, transfers and acquisitions between the County Council, Highways England, and Welborne Land Ltd.
45. Subject to approval of this Project Appraisal then initial engagement with the 4 potential Suppliers could commence in Autumn 2021. This would provide notification that a Call-off Tender would be issued later in the year. Following a 12-week timescale for Call -Off Tender Packs to be prepared and returned by the Supply Chain, and the evaluation of the Tender Packs by the County Council, it is envisaged that the Contract could be awarded in early 2022. Further to the completion of the design and Approval processes during 2022 it is currently anticipated that main works will commence early 2023 and will take approximately 2 to 2.5 years to complete.
46. The landscape planting will be undertaken by specialist contractors both at suitable times during the main contract works and before the end of the first planting season after completion of the works. This approach will help to enable the landscape planting to become established and contribute towards the mitigation for the scheme at the earliest opportunity. Appropriate traffic management will be implemented to ensure safety of works throughout the duration of the contract.

### **Scheme Details**

47. The preliminary and significant parts of the detailed design for the scheme have been completed by Atkins on behalf of the County Council through the Lot 3 Strategic Supplier Contract. These designs will be incorporated into the works contract using contractors design clauses. The successful contractor will be required to finish the designs to full detailed level to enable construction works to commence. **Figure 1** provides an overview of the scheme.

Figure 1 - Scheme Overview Layout



48. The overall junction improvement comprises the following key elements:
- New Eastbound Off-slip (Highways England Asset)** - The new eastbound off slip will form a single lane diverge/two lane slip road diverging from the motorway just east of Funtley Road bridge and heading east towards the Site and to a point just north of the proposed new underpass, terminating at a new traffic signal-controlled junction. Where the minimum criteria for earthworks slopes are not met, retaining walls are proposed.
  - New Westbound On-slip (Highways England Asset)** - The new west-bound on-slip will be a single lane slip road and merge onto the M27, commencing south of the M27 at a point diverging from the roundabout south of the underpass, to a merge with the M27 just east of the Funtley Road bridge.
  - Replacement Westbound Off-slip (Highways England Asset)** - The replacement westbound off-slip will be a single lane diverge from the M27 main-line, widening to two lanes at the traffic signals, and comprises an alteration to the existing westbound off-slip, which retains the existing slip road diverge just west of the existing A32 underpass,

and also involves the removal of the existing 270-degree loop and replacement with a straight slip road south off the M27. The new slip road will connect with the proposed new tear drop roundabout at the southern end of the new underpass via a new set of traffic signals, allowing for pedestrian/cycle crossing movements. The existing loop will become redundant and could potentially be removed and reinstated subject to Highways England's instruction.

- **Improved Eastbound On-slip (Highways England Asset)** – the existing on-slip will be retained but modified to improve safety and help address issues associated with changing design standards. The improved eastbound on-slip will be a two-lane slip road/ single lane merge onto the M27.
- **New Underpass Link Road (Highways England Asset/Hampshire County Council Asset)** a new 23.1m wide underpass underneath the M27 located to the west of the existing junction with the A32 and approximately 150m east of the existing Kneller Court Way access underpass. The underpass will connect with the eastbound off-slip and west-bound on and off slips, catering for north and south traffic movements via two-lanes north-bound and two lanes south-bound. A pedestrian cycleway would be provided alongside the two southbound lanes. A tear-drop roundabout will be provided at the southern end of the underpass and signalised junction at the northern intersection with the eastbound off-slip. The link road will further continue north to connect with a proposed Welborne roundabout.
- **New Welborne Approach Link Road (Hampshire County Council Asset)** – a new dual carriageway link road will head north from the proposed underpass and will continue for approximately 350m to connect with a proposed new 67m ICD roundabout heading into the development site and connecting eastwards to the East-West link and westwards into a proposed employment site. There will be a 3.0m wide shared use provision for a pedestrian / cycleway along the eastern side.
- **New East-West link road - Broadway (Hampshire County Council Asset)** - a new east-west link dual carriageway will be provided, running through the development north of and parallel with the M27 and connecting the new Welborne Approach roundabout at its western end to the new Broadway roundabout on the A32 at its eastern end, intersected by a further new High Street roundabout serving the proposed employment land to the south and District centre to the north. Two pedestrian/cycle 'Toucan' crossing points will be provided along the east-west link and there will be provision for a shared use pedestrian / cycleway along both sides.
- **New Welborne Approach Roundabout (Hampshire County Council Asset)** – a new four arm roundabout connecting to the Welborne

development. The roundabout will have an internal central diameter of 54m. The roundabout approach lanes will have a mix of two and three lane approaches and there will be two and three lanes on the circulatory carriageway with a spiral marking layout. The roundabout will be fully lit. The northern arm will have an informal pedestrian and cyclist crossing.

- **New High Street Roundabout (Hampshire County Council Asset)** – a new 4 arm roundabout will be provided mid-way on Broadway link road, connecting to the Welborne development. The location of this roundabout has been adjusted to avoid a clash with the existing high-pressure gas main. The roundabout will have an internal central diameter of 54m. The roundabout approach lanes will have a mix of one- and two-lane approaches and there will be one and two lanes on the circulatory carriageway with a spiral marking layout. The roundabout will be fully lit. The northern and southern arms will have informal pedestrian and cyclist crossings.
- **New Broadway Roundabout (Hampshire County Council Asset)** – a new 3-arm roundabout will be provided at the eastern end of Broadway link road and at its connection with the A32 Wickham Road. The existing connection between the A32 and Pook Lane, which interfaces directly with the M27 eastbound on slip at this location, will be closed. A north-south segregation lane will be provided at the roundabout to enable traffic travelling from the Wickham direction to the M27 east to bypass the roundabout to facilitate easy access onto the M27 eastbound on-slip, and also to enable enhanced operational effectiveness at this roundabout.
- **A32 Wickham Road (Hampshire County Council Asset)** – part of the existing A32 Wickham Road will be upgraded to dual carriageway. There will be no impact upon the A32 underpass under the M27 as part of the scheme. Environmental mitigation is proposed along the A32 north of the M27.

### **Key Design Constraints and Departures from Standard**

49. The Scheme has been designed to comply with DfT and Hampshire County Council standards for highways, mindful of certain key constraints in the vicinity of the scheme. As part of this there are seven identified departures which relate to the Highways England asset, some of which affect multiple locations. The departures and key constraints are listed and outlined below:

- **Westbound on-slip**

There are three departures which affect this.

- **Westbound off-slip**

There are two departures which affect this.

- **M27 eastbound mainline**

There are three departures which affect this.

- **Eastbound off-slip**

There is one departure which affects this.

50. All the departures listed above have been accepted by Highways England and any further departures produced during the completion of the detailed design phase will be submitted to the relevant Highway Authority for consideration.

51. Key constraints are outlined below:

- **Existing Funtley Road under rail underpass** – the proposed east-bound diverge starts just east of the existing Funtley underpass. A compliant diverge layout can be achieved without affecting the existing underpass, which will be retained. The proposed west-bound merge ends just east of the existing Funtley underpass. As a result of retaining the existing underpass a compliant merge layout could not be achieved in this location and a departure from standards was sought and has been approved by Highways England.
- **Existing Kneller Court Road underpass** under the M27 will be redundant upon completion of the scheme as it would conflict with the construction of the east-bound diverge and west-bound merge. The underpass will need to be removed / filled in as part of the scheme earthworks with the offside edge of carriageway to be constructed with a retaining wall and the nearside edge of carriageway with an embankment. The proposed retaining wall will be integrated within the existing underpass wing walls. There are no existing parapets at the motorway level and the VRS will be provided with steel barriers.
- **Integration with Highways England's Smart Motorway Project (SMP)** a key factor in the design of M27 Junction 10 is Highway England's ongoing M27 (Junctions 4 to 11) Smart Motorway Project to upgrade the M27 from 3 to 4 All Lane Running (ALR) with the provision of through junction running (TJR) at all junctions except at junction 9 east and westbound and junction 5 westbound. As part of the SMP, Emergency Areas (EA) will be introduced at regular intervals along the motorway to provide drivers with a safe stopping area for emergency use, and the existing verge will be locally widened into the existing cutting or embankment slopes at smart motorway infrastructure locations such as gantry sites.

To minimise disruption to the public and to avoid abortive works, it is important that both packages of work are planned to work with one another. There has been continual dialogue between the County Council and Highways England in this regard, and there has been coordination and adjustment throughout the design processes for both schemes. The 2D geometry for the east-bound diverge, west-bound merge and west-

bound diverge slips has been prepared in conjunction with the SMP 2D plan. The SMP 3D model (received from Highways England's contractors) has been adopted to align with the vertical geometry of the proposed M27 J10 slip roads. Modifications have been made to the M27 Junction 10 scheme to reflect the SMP works, including: adjustments to the proposed on and off slip designs and underpass design, localized widening on the east-bound verge at locations of proposed motorway communication assets at chainage 34+170m; the re-location of Emergency Area EB7 to Eastbound off slip; the replacement of the N2 containment Vehicle Restraint System (VRS) on the Eastbound verge with a Combined Acoustic barrier on a like for like replacement basis from chainage 33830m to 35760m; Widening of the west-bound verge from chainage 34+340m to 34+400m, along with localised widening as required to accommodate the drainage proposal for the new scheme

It is envisaged that the SMP works and extended works package, to include advance vehicle detection technology, will be completed mid-2022.

- **Combined Acoustic Barrier** - a Combined Acoustic Barrier has been proposed on the east-bound off slip, east-bound mainline verge, and parts of east-bound on slip. The acoustic barrier would replace the VRS being installed by the Highways England's SMP on a like for like basis. The proposed VRS will be constructed at a minimum set back of 0.45m from the kerb edge, and a working width of 1.063m for 3m height of acoustic barrier.

### **Safety Audit**

52. A first stage Road Safety Audit (RSA1) has been completed and items identified have been addressed through the design process. A further Road Safety Audit will be undertaken prior to finalising the detailed design and another will be undertaken upon completion of the works. Further advice from Highways England and the Highway Authority will be sought on whether an operational Road Safety Audit will be required one year after the scheme is open for traffic.

### **Scheme Risks**

53. M27 J10 Improvement is a highly complex and challenging project with multiple stakeholders, demanding programme timescales and requiring specialist design and construction techniques. With any typical highways scheme of this scale there are always significant risks. In addition to a number of 'front end' risks aligned to this scheme there are also specific risks associated with the complexity of the technical design and engineering operations, which are material in informing the approach to procurement and need to be considered in this report.

54. As part of a best practice approach to project management, regular risk workshops are held, to identify all potential risks and record them onto a risk register. A likely cost and likelihood factor of the risk occurring is applied. A clear mitigation strategy is then identified to minimise the likelihood of the risks occurring or to remove the risks altogether. This strategy is reviewed each month by the project team and risk owners. The procurement strategy set out further on in this report accords with the risk mitigation strategy.

55. The key scheme risks broadly fall into two categories: those that might arise pre-construction and those that might arise during construction.

The key pre-construction risks are:

- delays in securing Highways England's Approvals;
- the need to ensure the completion of design of the structure and associated liabilities are on-boarded to the contractor who will be responsible for the construction;
- the possibility of a Public Inquiry into the Orders process;
- protracted delays in formally agreeing funding; and
- delayed start to the works which puts pressure on spending window and increase inflation costs.

The key construction stage risks are:

- HE processes or other works in the vicinity of the scheme incur delays;
- not re-opening the motorway within an accepted window following the structure works;
- below ground unknown utilities; and
- bad weather delaying the works.

56. In relation to the pre-construction risks associated with the procurement process, the ownership of the design is key and particularly the design of the complex structural works. It is critical that the contractor has input into the completion of the structural works design to ensure the structure is designed in a way that is compatible with the way in which it will be constructed, and to ensure highly specialised construction sequencing in collaboration with Highways England. There are different ways an underpass can be constructed. In this case it is proposed that a box will be constructed next to the motorway following which the box will be either slid or pushed into position underneath the M27 using one of a range of techniques. If the design is not undertaken by the contractor building the scheme, then this presents a high risk, and the design may become totally abortive. In order to mitigate this particular risk, it is critical that the procurement process covers both the completion of the design and the delivery. This will help ensure the contractor building the scheme 'owns' the design and is liable for any aligned issues. This approach typically results in increased tender prices, and for this reason is untypical of more conventional County Council contracts, which just procure the construction of works, but it will reduce the likelihood of legitimate compensation events increasing costs during the project.

57. Following the completion of the design, there will be a break clause in the contract, which aligns to a Gateway decision point, to help mitigate key risks aligned to potential cost escalation at this stage. The Gateway will provide the opportunity for a review of costs against available budget and the status of risks at this time. A further report will be prepared at this time to seek approval to progress to scheme delivery.
58. In relation to the construction stage risks, which are based upon the assumption that the County Council agrees to proceed past Gateway 2 and continue to be the scheme Delivery Body, a number of risks and issues need to be considered now and addressed in the procurement process. Firstly, there is a need to ensure the defined budget is not exceeded. Secondly, there is a need to ensure appropriate parts of the budget are spent in defined timescales.
59. To help reduce the construction stage risks, particularly those relating to cost escalation and claims, the procurement approach and contract will need to seek to transfer many of the risks to the contractor as they will be best suited to implement cost management plans. Arguably, the most significant risk would be the failure to finish work on the underpass to allow the motorway to re-open on time, which could be passed to the contractor. Prolongation or failure to complete works to time due to machinery failure or late delivery of material are risks that the contractor is best placed to mitigate, and these risks can also be covered in the procurement approach and highlighted within the contract. The risk of unexpected underground services or bad weather could also to a large extent be passed to a contractor. These types of provisions typically result in increased tender costs but reduce the likelihood of legitimate compensation events increasing costs during the project.
60. The financial implications of the construction stage risks can largely be managed or migrated through contractual mechanisms. In the event that the contractor becomes insolvent (as happened on the Whitehill/Bordon Relief Road) then the contractual risk transfer would clearly have no effect, unless the provisions could be incorporated in a replacement arrangement with a new contractor.
61. It is not likely that any risk associated with Highways England decisions or activities which interfere with the scheme delivery programme could be passed to a contractor, and consequently this could lead to a contract variation or compensation event which would fall on the delivery body commissioning the work. Whilst the section 6 Agreement would enable some risk mitigation, the Cabinet report recommended that a Memorandum of Understanding (MoU) should be sought with Highways England to seek to mitigate risks in this regard. The MoU is nearing completion but will not be legally binding.

## **Statutory Procedures and Agreements**

62. In October 2019, Fareham Borough Council resolved to grant Outline Planning Permission for Welborne Garden Village and Detailed Planning Permission for M27 Junction 10 subject to the finalisation of a Section 106 Agreement with WLL and a raft of pre-commencement planning conditions. The S106 is nearing completion and it is anticipated that this will be signed by all parties imminently. Once the Section 106 is agreed then work can progress to submit details to Fareham Borough Council regarding the pre-commencement conditions for these to be signed off as part of the statutory process.
  
63. Further to the July Cabinet report, work has commenced to progress the drafting of the Orders and to prepare appropriate drawings. The Orders cannot be advertised until full Planning Permission has been granted following completion of the Section 106 Agreement. Once the Orders have been advertised, there may be a Public Inquiry if the Department of Transport decide there are grounds following statutory objections to the Orders. The Department of Transport will convene the hearing and appoint the Inspector. The Secretary of State makes the final decision on any objections. If an Inquiry is required, this will add delay to the programme with additional time both before the Inquiry can be arranged and after any Inquiry closes, when there is usually a period of some months before a final report and decision is published.
  
64. In order for the County Council to undertake works on Highways England's land, a Section 6 and 8 Agreement under Highways Act 1980 will be required. This is currently being drafted. In carrying out the procurement and tender process to secure the contract for the construction of the scheme, the County Council must comply with any reasonable directions of Highways England as to the terms of the contract to be entered into for carrying out the Works. The County Council may be asked to provide draft copies of all appropriate procurement documentation including the tender and the contract documents to Highways England. Any additional requirements Highways England submit for inclusion in the tender will be included in the contract documents, provided that such additional requirements are provided without unreasonable delay.

65. In order to undertake the construction work, a number of land agreements will be required. Land will be required by the County Council for temporary works. Land which will form part of the local Highway Authority's asset will need to be dedicated or transferred to the Highway Authority from Highways England, WLL, and Fareham Borough Council. Highways England will require transfer of land which will become its asset from other parties within 56 days of the issue of Final Certificate. WLL may seek to acquire land around the redundant loop from Highways England if there is an opportunity to do so. As part of a Land Assembly Strategy required by Homes England prior to confirmation of the HIG Agreement, a clear understanding of the approach will need to be provided. This report sets out in the recommendations that the Director of Culture, Communities, and Business Services be requested to progress if appropriate any transfers of land identified in this report under the powers delegated by the Executive Member for Policy and Resources, to enable work on the land agreements to commence as soon as possible.
66. Homes England has agreed to split the Housing Infrastructure Grant Agreement into a legally binding agreement with the County Council whereby it agrees to fund £41.25million in relation to the design and delivery of the scheme, alongside a less formal MoU with Fareham Borough Council which relates to the re-cycling of funds back into affordable homes and the obligations to deliver homes as outputs, both of which matters are outside the jurisdiction of the County Council. In terms of the part of the agreement which is with the County Council, an iterative dialogue is ongoing regarding draft Heads of Terms, and it is anticipated that the agreement will be signed within the next two months.

### **Public Consultation and Equalities**

67. The upgrade of the M27 Junction 10 is integral to the wider Welborne development and associated masterplan forming part of the Fareham Borough Council (FBC) policy framework set out in the "Welborne Plan" (adopted 2015). As a consequence, there has been a significant amount of statutory and public consultation and scrutiny relating to the scheme within the context of the wider Welborne development, rather than as a stand-alone infrastructure project over the last 10+ years, which has been led by the Borough Council and Buckland Development Ltd (BDL). The Borough Council has held consultation events as the Planning Authority, whilst BDL has held separate consultation events as the applicant and Master Developer regarding the Planning Application. In summary:
- 2008 - 2010 Evidence studies including Junction 10 scheme options were considered, included in Fareham Borough Council's Core Strategy, and subjected to an Examination in Public (EiP);
  - 2014 – 2015 Consultation took place around the adoption of the Welborne Plan, including preferred Junction 10 layout, led by Fareham Borough Council and progressed through a second EiP prior to Plan adoption in 2015;

- 2016 – 2019: Consultation related to the Outline Planning Application has taken place a number of times since the initial submission in March 2017 and to cover subsequent updates in 2018/2019. The Borough Council led 4 rounds of informal topic based, Community Action Team engagement events, which included events focused upon transport as part of the Planning Application consultation. This ran alongside the associated formal, statutory six weeks plus public consultations on Buckland's Outline Planning Application, and throughout the planning process, providing a resolution to grant Planning Permission in October 2019. Throughout this period, BDL also undertook public engagement, including one to one stakeholder briefings, information events advertised to 20,000 members of the local community, the provision of feedback forms, the provision of information throughout in the form of website and newsletter information, etc; and
- 2019 to date: Following the submissions of 2 variations to the Planning Application, which did not significantly impact the design for Junction 10, two further statutory public consultations were undertaken with associated Borough Council reporting.

68. The first planning consultation period was open for six weeks throughout September and October 2017. The following two planning consultation periods in January 2021 and July 2021 were open for three weeks. However, in reality the public comments were accepted until the day of each Planning Committee. All documents submitted by the applicant, and public comments received in response to the consultation, have been recorded and published on the Borough Council's website since April 2017, and remain available online on the Planning Portal or to view at the Civic Centre, Fareham.
69. The County Council has undertaken focused mailshot communications directly to residents located on the Junction 10 site boundary to notify residents of the initial stages of ecological enabling works.
70. A Public Information Event will be undertaken by the County Council to update residents on scheme progress and will be aligned to the advertisement of the Orders.
71. The scheme is located in the County Division of Fareham Town, but will provide wider benefit across the Borough, in terms of enhanced access to the M27. The proposals are supported by the local County Councillors, Councillor Peter Latham and County Councillor Pam Bryant, who represent Fareham Town. The scheme is fully supported by County Councillor Sean Woodward and in his capacity as Leader of Fareham Borough Council.

72. The M27 Improvement scheme will benefit all transport users by improving connectivity between Welborne Garden Village and Fareham town centre, railway station and bus station. The scheme will enhance existing and create new facilities for pedestrians and cyclists and will include a dedicated BRT link into the site, all of which will be of particular benefit to those more likely to travel on foot or by public transport, including older and younger people, people with some disabilities, people on lower income, and women. There will be local benefits for those moving into homes or jobs in the new Garden Village but wider benefits for the existing community with improved accessibility to the M27 and across the M27. Improvements will benefit all.

### **Climate Change Impact Assessments**

73. Hampshire County Council utilises two decision-making tools to assess the carbon emissions and resilience of its projects and decisions. These tools provide a clear, robust, and transparent way of assessing how projects, policies and initiatives contribute towards the County Council's climate change targets of being carbon neutral and resilient to the impacts of a 2°C temperature rise by 2050. This process ensures that climate change considerations are built into everything the Authority does.

### **Climate Change Adaptation**

74. Following assessment using the Adaptation Tool, the project is not considered to be vulnerable to climate change. The location of the scheme is prone to surface water flooding. However, the design has been executed in line with the requirements of Hampshire County Council as Statutory Lead Local Flood Authority and the latest guidance from the Environment Agency. Appropriate storm return periods, with designs allowing for a one in a 100-year storm where appropriate, have been applied, with the latest climate change allowance included in accordance with the Environment Agency requirements. The drainage system ensures there is no increase in the rate of runoff discharged from the site, and on-site flooding is contained within the specially designated areas, reducing the risk to people and property. There are no identified risks from extreme heat and storms.
75. This aligns well to the Strategic aims as set out at the start of this paper ensuring that Hampshire maintains strong and sustainable economic growth and prosperity and supports strategic priorities for improving wellbeing and health through inclusion of new footways and cycle tracks to encourage active travel.

## Carbon Mitigation

76. Carbon emissions from this project will arise during the construction and operational stages of the new highway. The construction will involve heavy vehicles moving significant earth works to create embankments and an underpass. Mitigation will seek to ensure that cut and fill movements are limited with as much re-use and disposal on adjacent land as possible to reduce emissions. Emissions will be further mitigated by additional tree and scrub planting, over and above that which will need to be removed during the works phase of the scheme.
  
77. During the operational stage of the scheme, emissions associated with existing trips and journeys will be reduced, with shorter journeys facilitated by improved accessibility to the M27 from Fareham. Currently, many vehicles access the M27 at J10 to head eastwards to perform a U-turn at M27 J11, thus enabling them to head west. There will no longer be a need for these extraneous journeys. The reduced journey lengths will, however, be off-set by additional journeys around the junction that will increase incrementally over time in line with the build out over 25 years plus of the Welborne Garden Village development. There will be additional carbon emissions associated with these new trips to the network. In order to help provide some off-set, the proposed improvement will cater for more sustainable modes of transport, providing enhanced accessibility across the M27 for walking and cycling towards Fareham town centre and bus and rail stations, and the scheme also allows for dedicated Bus Rapid Transit links into the development. High proportions of self-containment are part of the key objectives of Welborne as a Garden Village with significant employment to enable walking to work.

## LTP3 Priorities and Policy Objectives

### 3 Priorities

- To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire
- Provide a safe, well maintained and more resilient road network in Hampshire
- Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions, to support the efficient and sustainable movement of people and goods

### 14 Policy Objectives

- Improve road safety (through delivery of casualty reduction and speed management)
- Efficient management of parking provision (on and off street, including servicing)
- Support use of new transport technologies (i.e. Smartcards; RTI; electric vehicle charging points)
- Work with operators to grow bus travel and remove barriers to access
- Support community transport provision to maintain 'safety net' of basic access to services
- Improve access to rail stations, and improve parking and station facilities
- Provide a home to school transport service that meets changing curriculum needs
- Improve co-ordination and integration between travel modes through interchange improvements
- Apply 'Manual for Streets' design principles to support a better balance between traffic and community life
- Improve air quality
- Reduce the need to travel, through technology and Smarter Choices measures

- Promote walking and cycling to provide a healthy alternative to the car for short local journeys to work, local services or school
- Develop Bus Rapid Transit and high quality public transport in South Hampshire, to reduce car dependence and improve journey time reliability
- Outline and implement a long term transport strategy to enable sustainable development in major growth areas

**Other**

Please list any other targets (i.e. National Indicators, non LTP) to which this scheme will contribute.

**REQUIRED CORPORATE AND LEGAL INFORMATION:**

**Links to the Strategic Plan**

Hampshire maintains strong and sustainable economic growth and prosperity:	yes
People in Hampshire live safe, healthy and independent lives:	yes
People in Hampshire enjoy a rich and diverse environment:	yes
People in Hampshire enjoy being part of strong, inclusive communities:	yes

**Other Significant Links**

<b>Links to previous Member decisions:</b>	
<u>Title</u>	<u>Date</u>
<b>Direct links to specific legislation or Government Directives</b>	
<u>Title</u>	<u>Date</u>
EMET – M27 Junction 10	15 Jan 2019
EMETE – M27 Junction 10 Update	14 Jan 2020
Cabinet – M27 Junction 10 Scheme Update	29 Sept 2020
Cabinet – M27 Junction 10 Project Review	9 Feb 2021
Cabinet – M27 Junction 10 Welborne	13 July 2021

**Section 100 D - Local Government Act 1972 - background documents**

**The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)**

<u>Document</u>	<u>Location</u>
Fareham Borough Council Planning Decision on Welborne Garden Village October 2019	Planning Portal /Fareham Borough Council website

## **EQUALITIES IMPACT ASSESSMENT:**

### **1. Equality Duty**

The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited by or under the Act with regard to the protected characteristics as set out in section 4 of the Act (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation);
- Advance equality of opportunity between persons who share a relevant protected characteristic within section 149(7) of the Act (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic within section 149(7) of the Act (see above) and persons who do not share it.

Due regard in this context involves having due regard in particular to:

- The need to remove or minimise disadvantages suffered by persons sharing a relevant protected characteristic that are connected to that characteristic;
- Take steps to meet the needs of persons sharing a relevant protected characteristic that are different from the needs of persons who do not share it;
- Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

### **2. Equalities Impact Assessment:**

The M27 Improvement scheme will benefit all transport users by improving connectivity between Welborne Garden Village and Fareham town centre, railway station and bus station. The scheme will enhance existing and create new facilities for pedestrians and cyclists and will include a dedicated BRT link into the site, all of which will be of particular benefit to those more likely to travel on foot or by public transport, including older and younger people, people with some disabilities, people on lower income, and women. There will be local benefits for those moving into homes or jobs in the new Garden Village but wider benefits for the existing community with improved accessibility to the M27 and across the M27. Improvements will benefit all.