

CAPITAL INVESTMENT BUSINESS CASE

Highways – Capital Budget Allocation 2023/24



EXECUTIVE SUMMARY

The Executive Summary is a short summary of the Business Case and should be the last section you complete, this will enable you to 'cut and paste' key details from relevant sections. The summary is a 'snapshot' of the business case, which will need to tell the story and sell the proposal.

The highway network is the Council's largest capital asset with an estimated replacement cost of in excess £1.6 billion (2019) and requires regular ongoing maintenance and renewal in order to be kept in a safe and serviceable condition for the travelling public. The asset is vitally important not only for the everyday operation of the City and the lives of its inhabitants but also for ongoing economic development and productivity in all aspects of city life.

Historically, Highway Maintenance has been a largely Revenue based activity and many Highway Authorities continue to fund a significant proportion of Highway Maintenance activity through Revenue. However, the Council's Revenue budgets are under historic pressure and whilst every opportunity is taken to generate income, Capital Investment is essential to ensure the resilience and safety of this critical infrastructure. The Capital bid below is for One year, is submitted in appreciation of the Council's financial position and therefore set at a level, which assumes that the condition of the Highway Asset will begin to deteriorate significantly.

Plymouth Highways follows best practice in managing maintenance of the highway asset and has modelled long-term maintenance strategies, aimed at achieving a number of outcomes. These are described in the Highways Asset Management Framework and summarised below:

- Maintaining and improving the condition of the public highway
- Reinstating the structural integrity of roads
- Improving highway drainage and keeping water off the highway
- Supporting economic growth in the city by improving our transport network and reputation for quality of roads
- Continuing the drive away from a reactive service towards a planned and efficient service
- Improving the safety of the road network to reduce injury collisions in line with statutory requirements, Coroner's recommendations and the City's obligations as a founder member of the Vision Zero South West Partnership.
- Planned replacement of the City's Traffic Signal infrastructure, as it depreciates, with modern and efficient equipment will help ensure the best use of road space and safety of all road users.
- Planned replacement of the City's street lighting asset, as it depreciates with modern and efficient lighting units and columns will reduce the City Council's energy bill and carbon footprint, reducing the risk of damage and injury associated with failure of columns, which is always a greater risk in coastal locations.
- Planned Capital Maintenance of Bridges and other Structures

The framework places importance on building resilience in response to Climate Change and ensuring that Biodiversity and Carbon Reduction are considered in all maintenance decisions.

Continued investment also secures access to the Department for Transport Funding through the Incentive fund, which is allocated on performance. Plymouth is currently in Band 3, judged to be amongst the highest performing Highway Authorities and receives £323,000 Capital Funding per annum in recognition. Band 2 Authorities receive 30% of the potential total amount with Band 1 Authorities receiving no Incentive Fund grant.

The absence of a Capital Investment programme undermines existing investment and will, precipitate a greater and faster deterioration of the asset leading to higher future investment scenarios to recover. This in turn will increase demand on revenue for reactive maintenance and put the City Council at higher risk of litigation due to greater numbers of safety defects occurring.

Public perception of Highway Services in the UK is measured through the National Highways and Transport Network Survey on an annual basis across 111 participating authorities via 1.2 million questionnaires submitted

by local residents across the country. The results this year show that Plymouth's residents place most importance on Road Safety and the Condition of roads. However, residents were least satisfied with the condition of roads, which was also the most popular choice for improvement to service level and additional expenditure.

Over the last three years the City Council has had an average capital budget of £8.265 million to spend on highway maintenance. This has included £2 million annually from Corporate Borrowing and funding from the DfT Challenge Fund (the challenge fund is a competitive bidding process and is not guaranteed) to fund specific proposals above and beyond routine maintenance. This has meant that our resilient network (the key routes for traffic throughout the city) have been restored to a serviceable level maintained at a steady state to date.

However, significant additional pressures have been identified in the areas of Traffic Signals, CCTV, Road Safety and failure of the non-resilient road network. These, along with both a significant rise in contractor costs since submission of the previous bid and further anticipated rises, indicate that an increase in investment would be required to maintain the asset in its current condition and to provide improvements in congestion management and road safety as detailed below.

Inflation

Since submission of the current Capital Business Case in 2019, UK CPI prices have risen by approx. 28%. Plymouth Highway's Principle Contractor and Suppliers across the construction sector are particularly vulnerable fluctuations in prices due to their reliance on petrochemical and other imports which have been effected by the Ukraine crisis and a significant fall in the value of the £ which was trading at \$1.32/£ in April 2019 and at the time of writing is trading at \$1.19/£, a fall of 9%

Current Investment Scenario

The Investment Scenario for 2023/24 calls for £6.458m of previously allocated Capital funding compared to an historic investment £8.265m per annum over the last three year period and in the context of the inflationary pressures mentioned above. This is a fall of 28% before inflationary pressures are accounted for.

Steady State Scenario

The level of investment required to maintain the asset in a Steady State after other funding and assumed Dft Funding is taken into account has been modelled at £145.53 million over a 5 year period. It should be noted, that in this scenario there are currently neither the Staff nor Contractor and Depot resources available to deliver such a programme.

The Current Challenge

The highway network in Plymouth was not originally designed or constructed to the standards that would be expected of highways today. As a consequence, many highway assets are less resilient and are entering the mid to end phase of their serviceable lifespan. Increasingly frequent and severe weather events have also accelerated the deterioration of the highway asset.

In recognition of the current financial climate, a one year bid has been prepared for 2023/24 to allow a more detailed 5 Year bid for 2024 to 2029 to be modelled for submission in the next financial year.

SECTION I: PROJECT DETAIL			
Project Value (indicate capital or revenue)	£4,457,815 DfT Funding	Contingency (show as £ and % of project value)	
Programme	Highways Maintenance	Directorate	Place
Portfolio Holder	Cllr Mark Coker	Service Director	Phillip Robinson (Street Services)
Senior Responsible Officer (client)	Philip Robinson	Project Manager	Phil Bellamy
Address and Post Code	Plymouth City	Ward	Citywide

The Request

Background

The highway network and other transport infrastructure assets together represent the largest capital asset the Council holds, with a current replacement cost of £1.6 billion. Used daily by the travelling public for commuting, business and leisure activities; it is crucial to the economic, social and environmental wellbeing of our local communities.

The highway network, which includes carriageways, footways, drainage, street lighting, traffic signals and structures, requires regular planned maintenance and renewal in order to maintain the network in a safe and serviceable condition for the travelling public. With revenue budgets at an historic low for the Council it is essential that Capital Funding is invested to build resilience into this critical infrastructure. The introduction of an Asset Management approach to highway maintenance in Plymouth has enabled the modelling of long-term maintenance strategies, aimed at achieving a number of outcomes:

- Maintaining and improving the condition of the public highway
- Reinstating the structural integrity of roads
- Improving highway drainage and keeping water off the highway
- Supporting economic growth in the city by improving our transport network and reputation for quality of roads
- Continuing the drive away from a reactive service towards a planned and efficient service
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- Planned replacement of the City's Traffic Signal infrastructure, as it depreciates, with modern and efficient equipment will help ensure the best use of road space and safety of all road users.
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- Planned Capital Maintenance of Bridges and other Structures

Historical Funding

In 2015 the DfT changed their funding model to give local authorities cost certainty of funding for a six-year period enabling local authorities to financially plan into the future giving confidence to service providers and supply chains. In recognition of the effects of the Pandemic, this approach has now been extended for a further 3 years to 2024/25. The Highway Maintenance Efficiency Programme (HMEP) produced an asset management guidance document recommending Authorities commit to a minimum five-year funding model. This approach gave local authorities the opportunity to gain efficiencies through longer term strategic planning. HMEP principles are being maintained and quality delivery reviews are measured by the Incentive Scheme principle now being delivered by Dft by way of an auditable self-assessment arrangement, policed by the Local Authorities' Section 151 Officer

Plymouth City Council has transformed its asset management approach since the launch of HMEP. This has involved upgrading all of its asset management systems and investing in surveys to gather data to inform accurate depreciation modelling that to drive investment scenarios to achieve best value.

As a result of this improvement, Plymouth City Council have been recognised as a top performing authority, achieving Band 3 (top level) status in the DfT's incentive fund scheme, which assesses an authority's competency with regards to asset management.

In order to alleviate the pressure on revenue budgets, and recognising the fiscal challenge Plymouth City Council face in 2023/24 it is important to have commitment to capital funding in support of the required minimum statutory duties of the highway service. The need to secure this funding is critical for long-term planning of maintenance activities and providing confidence to our supply chain to deliver greater value for money services.

Capital funds are required in 2023/24 to spend on highway maintenance from the DfT Challenge Fund, Incentive funds, previously unallocated Dft funding and an annual Capital allocation of £2m per annum from the councillor commitment fund.

To date, our resilient network (the key routes for traffic throughout the city) have been maintained to a serviceable level in a steady state.

The Current Challenge

The highway network in Plymouth was not originally designed or constructed to the standards that would be expected of highways today. As a consequence, many highway assets are less resilient and are entering the mid to end phase of their serviceable lifespan. Increasingly frequent and severe weather events have also accelerated the deterioration of the highway asset.

In order to continue to address this ever growing challenge, it is now vital that the city Council remains committed to upholding its statutory obligations and the strategic aims set out in the Highways Asset Management Framework. Therefore, the continuation of capital investment to re-build resilience back into this critical asset is essential. Failure to do so will undermine investment to date and lead to greater deterioration, increased demands on revenue, higher future investment scenarios due to not intervening before end of life and higher risk of litigation due to greater numbers of safety defects occurring.

In recognition of the current financial climate, we have modelled a managed decline scenario that is broadly in line with historic investment levels. We have achieved this through sweating assets, prioritising (e.g. development of a resilient network) and exploring innovative product selection.

This approach has been benchmarked against industry standards such as the Incentive Fund and best practice adopted by other Highway Authorities.

Investment Scenario's

Brief synopses of the modelled Scenarios are shown below with greater detail shown in the appendices.

Steady State Scenario

The level of investment required to maintain the asset in a Steady State after other funding and assumed Dft Funding is taken into account would be £145.53 million over a 5 year period. It should be noted that in this scenario there are currently neither the Staff nor Contractor and Depot resources available to deliver such a programme.

Managed Decline Scenario

The level of investment required to maintain the asset in a Managed Decline scenario after other funding and assumed Dft Funding is taken into account would be £65.47 million over a 5 year period. Similar to the scenario above it should be noted that both Staff, Contractor and infrastructure resources would be stretched to deliver such a programme of works.

Current Model Plus

This level of investment closely follows the funding levels available in the last three years but adds capability to address shortfalls in the areas of Traffic Management and Road Safety, Traffic Signal Infrastructure and CCTV. The modelled decline in the Highway Asset is much greater over the 5 year period, with a doubling from 2% to 3.9% in the level of the Resilient Road Network judged to be in need of significant maintenance or at failure point. A far greater proportion of the non-resilient Network (Residential Roads and local distributors) is judged to be in the worst category - this is predicted to rise from the current 36.7% to 68.3% over the next 5 years. The level of funding under this scenario would be £46.6 million over a 5 year period.

Holding Budget Allocation recognising Fiscal Budget Challenge 2023/24

No new Capital investment is sought from Corporate in the year 2023/24, but confirmation that the following externally sourced income is allocated to the 23/24 Highway Capital Budget is required:

DfT Maintenance Block Fund 2023/24 - £1,290,000
 DfT Pothole Fund 2023/24 - £1,290,000
 DfT Incentive Fund 2023/24 - £323,000
 DfT Additional Pothole Funding 2023/24 – £516,000

20/21 - 22/23 Additional DfT Funding - £1,038,815

Proposal: (Provide a brief, concise paragraph outlining your scheme and explain how the business proposal will address the current situation above or take advantage of the business opportunity) **and** (What would happen if we didn't proceed with this scheme?)

The Request

Confirmation that the following externally sourced income is allocated to the 23/24 Highway Capital Budget:

DfT Maintenance Block Fund 2023/24 - £1,290,000
 DfT Pothole Fund 2023/24 - £1,290,000
 DfT Incentive Fund 2023/24 - £323,000
 DfT additional Pothole Funding 2023/24 – £516,000

20/21 - 22/23 Additional Dft Funding - £1,038,815

Table I - Proposed Allocation of DfT Budgets:

Code Description	DfT Maintenance Block Fund	DfT Pothole Fund	DfT Incentive Fund	20/21-22/23 Additional Dft Funding	23/24 Additional Pothole Funding
DfT CONFIRMED FUNDING	1,290,000	1,290,000	323,000	1,038,815	516,000
TOTAL	1,290,000	1,290,000	323,000	1,038,815	516,000
Street Furniture:	185,470	0	0	0	0
Street Furniture Replacements	180,470				
Grit Bin Replacements	5,000				
Carriageways	544,722	500,000	0	0	516,000
Carriageway Lining	432,853				
Carriageway Resurfacing	49,495				
Carriageway Pothole Initiative					516,000
Carriageway Permanent Repairs	62,374	500,000			
Footway	359,469	790,000	0	0	0
Footway Resurfacing	100,000				
Kerb Replacements	244,867				
Footway Permanent Repair	14,602	790,000			
Drainage	5,092	0	0	0	0
Drainage Improvement Schemes	5,092				
Local Safety & Minor Schemes:	119,954	0	240,000	0	0
TRO Reviews	35,000				
Collision Reviews	65,000		65,000		
Minor Traffic Schemes	4,954		145,000		
Safety Camera Partnership	15,000		30,000		
Living Streets:	0	0	25,000	0	0
Living Streets Coordination of Cllr Schemes			25,000		
Keep Plymouth Moving/20mph Zones:	75,293	0	58,000	0	0
20MPH Schemes Co-ordination			35,000		
Citywide When Lights Flash - 20MPH	20,000				
Traffic Calming	55,293		23,000		
Traffic Signals	0	0	0	738,815	0
Signal Optimisation				738,815	
Structures	0	0	0	300,000	0
Minor Structure Preventative Repairs				300,000	

Carriageways

Over the past 3 years the capital budget has prioritised spend on improving the condition of the resilient/classified network as these routes are considered as crucial to the economic and social well-being of the city. Now the resilient network has been brought up to a good condition (4% red rating) the suggested capital allocation will decrease this to 5% which will place at risk our band 3 status if Capital investment not recovered in years 2024 forward

Through the use of data led investment modelling we have developed an approach which enables prioritised, targeted and intelligent investment decisions which will enable performance to be, measured demonstrating how the capital funding is delivering the agreed targets.

Failure to invest in the carriageway through capital funding will prevent Plymouth from maintaining their statutory duty to maintain the highways network in a safe and serviceable condition. With a withdraw or reduction in funding the highway authority would also see the network deterioration increase, the asset value decreasing and the cost of carrying out much greater maintenance at a later date will be disproportionately higher. This can be demonstrated through the aforementioned evidence based strategic planning models.

Carriageways includes:-

- Vehicle Restraint Systems (Safety Barrier) which require annual testing and maintenance to remain effective
- Skid Resistant Surfacing
- Sign and Lining Maintenance
- Street Furniture (Bollards, and Fences etc)

Failure to invest will also have a direct impact on:

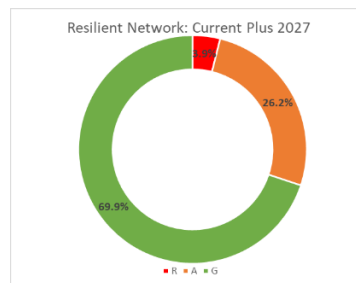
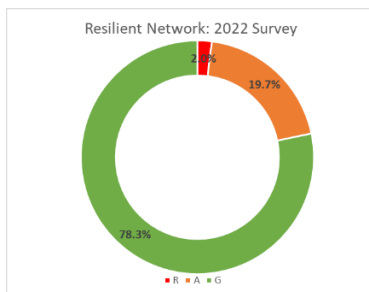
- Increased reliance upon revenue funding
- Volume of safety defects, which adds additional pressure to revenue budgets.
- Volume of Red Claims against the Council
- Public overall satisfaction of highway (as highlighted in the latest NHT survey)

The illustrations below show the current state of both the Resilient and Non Resilient Highway Networks in the City and the predicted decline over 5 years if the investment requested in is approved.

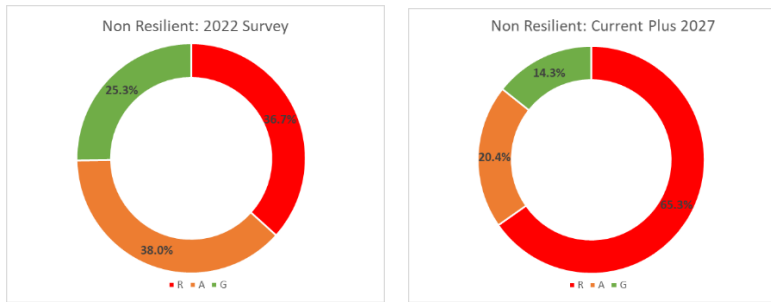
The conditions of the carriageway are RAG rated with Red indicating at failure and green as good condition.

The maintenance models used concentrate on maintaining the Resilient Network at less than 4% failure rate. As a consequence it can be seen that the condition of the Non Resilient Network will decline from 36.7% at failure Rate to 65.3% over 5 years.

Resilient Highway Network



Non-Resilient Highway Network



Footways and Cycleways

Footways and cycleways across the city are essential to support the Council’s agenda for walking and cycling to be a normal part of everyday life bringing benefits to the health and wellbeing of the public and reducing carbon emission in light of the Councils declaration of a climate emergency.

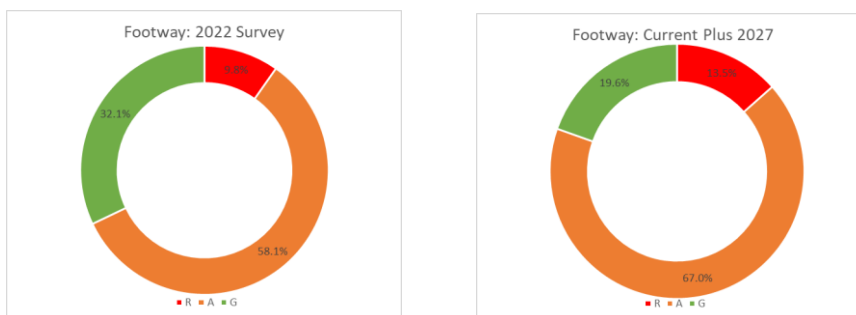
As with carriageways, in recognition of the requirement to prioritise certain strategically important routes, a resilient footway network has been developed. The capital bid will focus primarily on maintaining the state of the footway resilient network, wherever possible improving it in order to make walking and cycling to the city’s major destinations both a safe and pleasurable experience.

The aimed management approach for the remainder of the footway network will be to maintain it too in a safe and serviceable condition, however in realistic terms this will mean managed decline.

Failure to invest in footways will have a direct impact:

- Public’s decision to choose sustainable transport over driving
- Volume of Safety Defects and associated costs
- Public Satisfaction (As per the NHT Survey)
- Volume of claims against the Council for personal injury
- Increase demand on public health services related to personal injury claims particularly amongst the elderly & vulnerable

The maintenance models used predict that the condition of the City Council’s Footway Network will deteriorate from the current position where 9.6% of the network is currently at failure rate and 30.1% rated good to 13.5% at Failure and 19.6% rated good over 5 years



Drainage

For Plymouth, preventing our carriageways and footways from flooding is recognised as a corporate priority. Generally people identify drainage assets as gullies, however the city Council is responsible for a wide range of drainage assets including, linkages from gullies to sewers, culverted watercourses, pumping stations, tidal flaps and Sustainable Drainage Systems (SuDS).

Drainage assets are critical for the city and supports keeping water off the carriageway, which not only impacts on preventing carriageway flooding during weather events but equally as important, when working efficiently, reduces all standing water from the network. This is paramount to ensuring the longevity of carriageways and

footways as it prevents water from being trapped which can cause issues such as water freezing and thereby expanding and breaking out the surface- which leads to the formation of potholes.

Over the past 2 years, SMART technology and planned cyclical inspection have supported in creating a knowledge base across the network which has supported our move to an ever evolving regime of targeted maintenance.

Alongside this, we have developed a risk register of known hotspots which frequently cause disruption to the network. This funding will enable the city Council to address the highest risk hotspots currently identified, offering the core benefits of reduced disruption, improved safety, reactive maintenance costs, reduced insurance costs from red claims, improved public perception and overall resilience. This will also mean that we are able to start to consider the effects of carriageway water entering our watercourses (i.e. plastics, heavy metals and other pollutants) in line with our new status as a Marine National Park and as a commitment to the climate emergency.

Structures

Plymouth has a general duty of care to users and the community to maintain the highway structures in a condition that is fit for purpose. Current HMPE asset holding is as follows:

- 35 Bridges
- 58 Culverts
- 26 Tunnels
- 48 Subways

Each asset type demands complex engineering solutions to enable accessibility, programme timely remedial works and assure continual service is achieved

Highways- Structures demand a high level of intervention to ensure continuous serviceability and compliance. Failure to invest will result in the continuing decline of condition, resulting in possible safety critical defects, unsatisfactory discharge of statutory obligations and an increase of remedial costs. With structures there are also catastrophic risks of failure, including the closure of structures, similar to the Hammersmith and Fulham bridge, or a risk of structure collapse, similar to the recent highly publicised events across Europe in recent years.

Street Lighting and Traffic Signals

The Highway Lighting asset has a high visual impact on our street scene. As part of our Risk Based approach, based upon our Highway Infrastructure Asset Management Plan 'HIAMP' we maintain these assets in a safe and serviceable condition whilst maximising their serviceable life and reduce the incidences of failure.

Review of the Traffic Regulations and General Directions 2016 have allowed authorities to adapt the lit environment to achieve passive safe installations, reduction in street clutter and rationalisation of our lit environment.

City centre and Shopping Areas demand appropriate lighting and control solutions, as do safety specific locations such as Pedestrian Crossings, High Footfall, Poor Air Quality and Traffic Calming zones. Reinforcement and Engineering solutions need to be delivered to ensure our statutory duties are discharged and continued capital investment is required to achieve our statutory duties, The programmed delivery made possible by approval of this capital bid assures such levels of compliance.

Much of the City's Traffic Signal asset is at end of life and there is currently no replacement programme in place. Although full advantage is taken of Capital Programmes such as the Transforming Cities Fund there are still many sites across the City where columns and signal controllers need replacement in the near future. Maintaining and improving this asset ensures that traffic is able to move efficiently across the network and ensure that claims against the council in the event of column failure are kept to a minimum.

An investment in upgrade g the City's CCTV network is urgently required to enable the efficient management of the network and also delivers partnership benefits with the Police and other emergency services.

Traffic Management and Accident Reduction

The figures below are an illustration of the full amount required to run and maintain the Traffic Management and Road Safety programme across the City. A full costed description of what is required has been prepared. However, in the light of the acknowledged budgetary challenges faced by the Council the amount bid for has been reduced to 40% of the costed amount. This will necessitate a reduction in the hoped for investment in Casualty Reduction and Inclusive Mobility measures

Living Streets

This is a Capital Allocation made to each Ward in the City enabling Ward Councillors to agree funding for small improvements. Examples of the type of schemes funded could be Parking schemes, Dropped Crossings and Pedestrian Refuges. For more expensive schemes, the allocation can be rolled into future years with adjoining wards also collaborating on larger schemes along with top up funding from the Minor Schemes budget. In 2021/22 Plymstock Dunstone and Radford Ward Councillor pooled 3 years of saved Living Streets funding as a 50% contribution towards providing a new Zebra Crossing on Furzehatt Rd. Total cost of the scheme was in the region of £100,000.

Parking Schemes are typically low cost with Living Streets Traffic Orders processed together to save advertising and legal costs. Depending on the scale of the scheme and the amount of signing, these can usually cost £2,000-£3,000.

Dropped Crossings typically cost between £3,000 and £5,000 with Pedestrian refuges costing around £15,000.

Currently each 3 Councillor Ward received £6,725 per annum with 2 Councillor Wards receiving £4,483. The total allocation of £160,000 per annum has remained unchanged for 5 years.

Inclusive Mobility

The Disability Discrimination Act 1995, as amended, introduced a large number of changes to the way in which the highway environment should be made safer and accessible to all users. Whilst there is an acceptance that some physical characteristics will be difficult or impossible to overcome there is also a clear direction of travel indicated for the construction of new streets and for the improvement, where possible of the existing streetscape.

In Plymouth there are many thousands of examples where the City Council might be regarded to be in breach of the Act. Examples could be :-

1. Where trees have been allowed to grow to block a footpath.
2. Narrow footpaths below 1800mm
3. Roads with no dropped crossing points in safe locations
4. Signalled junctions with neither pedestrian phase nor dropped crossing facilities to enable vulnerable users to cross safely and conveniently.
5. Hillside housing estates where the only access is via steps meaning that some disabled residents are effectively confined to a small enclave unless physical assistance is available to help them negotiate the steps. Often there is an engineering solution available in the form of a ramp but no budget available.
6. Busy roads where there is demand for a Zebra or Signalled Crossing point

These issues not only discriminate against disabled road users but also cause community severance denying access to public transport and other facilities and unless motorised transport is available. There is therefore an additional carbon reduction benefit attached to providing and improving these facilities.

One way for the City Council could improve the lives of many of its residents and cover any potential liability in this area would be to have a realistic annual budget to fund an identified investment in a programme of works to address issues in a prioritised systematic way.

The Traffic Management Team currently spends around £80,000 per annum from its minor Schemes Budget providing and enhancing dropped crossing facilities and also works with Ward Councillors through the Living Streets budget to provide more. A single dropped crossing can cost £5,000 if there are no engineering complications. Crossings with a refuge will usually cost around £15,000. The number of crossings that can be provided each year is therefore extremely limited and this small budget allocation could all be spent in a single Ward of the city for a decade. Demand for new crossings and refuges from both Ward Councillors and the Public far outstrips the budgets available.

The opportunity to work with other sections is also taken and currently 2 new Crossroad signal junctions are being designed as part of the Transforming Cities Fund at locations identified by the team and the Traffic Signals Team. These locations currently have no controlled pedestrian and cycle facilities available and limited dropped crossings. (Millbridge Crossroads and Ford Hill/Milehouse Rd Crossroads). The costs of these scheme are both well in excess of £250,000 but there are several more across the City just as in need of attention. Eg Ford Hill/St Levan Rd Crossroads, Ham Drive/Honicknowle Lane Crossroads and Mutley Plain/Alexandra Rd Junction.

In recent years the team has taken advantage of the Dft's Active Travel Grant to provide a number of facilities which would otherwise not have been available. These include :-

- 3 Zebra Crossings to support Millbay Academy
- Traffic Calming & Zebra Crossing on Larkham Ln assisting Woodside Primary School.
- 20mph Zone & Zebra Crossing on Old Laira Rd
- 20mph Zone, Traffic Calming & Zebra Crossing on Miller Way assisting Thornbury School.
- Pedestrian and Cyclist safety facilities on Somerset Place
- 20mph when Light Flash deployment in the vicinity of Schools across the City.
- Improved and widened Cycle Lane plus residents parking provision of the A379 Billacombe Rd/Elburton Rd.

This has represented over £700,000 in additional funding which has also allowed the team to part fund a further Zebra Crossing on Furzehatt Rd assisted by Living Streets funding made available by Ward Councillors and an enhanced crossing and residents parking scheme on St Levan Rd.

The Active Travel Plan grant was a short term assistance package provided by Government during the Pandemic. The team were well placed to take advantage of the funding with many unfunded schemes in preparation. The original grant has now ended and an announcement on potential funding for 2023/24 is expected shortly. As this funding is yet to be confirmed there is currently provision for only one Zebra Crossing scheme for 2023/24. This is on Miller Way to assist Tor Bridge High, Tor Bridge Primary and Cann Bridge Special School. The cost of the scheme is estimated at around £80,000.

The team are aware of justified requests for crossings from Ward Councillors at many other locations around the City. These include at Whitley Green, Budshead Rd/Jubilee Rd, Pomphlett Rd and Garfield Terrace. Estimated costs of each range from £70,000 to £250,000 in the case of Pomphlett Rd.

School Streets and other School Travel Initiatives

The Road Safety Team is working with Schools across the City to introduce Safe Zones, School Streets and Safer Routes to School. These use a mixture of liaison with Schools and Parents, engagement with pupils and physical intervention. This may be to close roads temporarily in the case of School Streets, undertake enforcement action which may be physical attendance of a CEO or use of an enforcement Camera or simply provide a footway link or crossing point.

Case Study - Stentaway Rd in Plymstock where a narrow section of road 150m long is the main route to both Primary and Secondary schools in the area. There is no footway available and a traffic calming scheme plus footway could be constructed at a cost of approx. £150k.

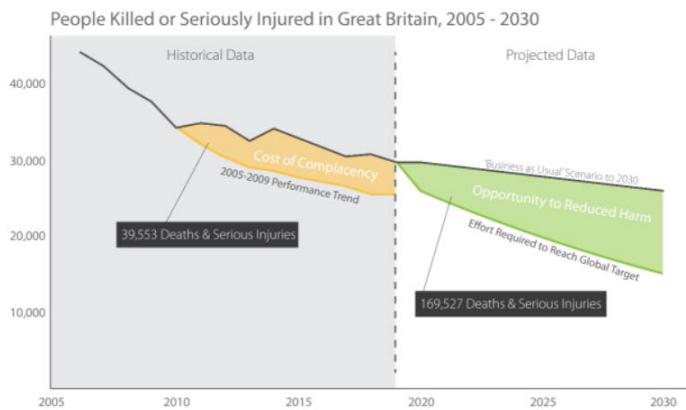
There are great benefits from this activity in terms of Road Safety, Health & Wellbeing and carbon reduction and it fits in well with our partnership work within the Vision Zero Southwest Partnership in undertaking Pedestrian and Cycle Training in both Primary and Secondary Schools.

Collision Reduction

In the recently published GB Road Safety Performance Index Plymouth City was found to be the third worst performer in the UK in terms of improvement in collision reduction over the period 2011 to 2019. A link to the report is below along with a graph which shows where we are and where we should be if our performance trend up until 2011 had been maintained.

https://experience.arcgis.com/experience/8be7cabdac024de195202c2f4b9e2282/page/Local-Authorities/?data_id=dataSource_4-TZ_LocalAuthorities_Progress_4021%3A26

Collision Reduction – GB Road Safety Performance Index,



In Plymouth between 2011 and 2019 there were 264* additional people killed or seriously injured on local roads than would have been the case if road safety performance improvement been maintained.

*This figure will show zero for authorities where casualty reduction performance has been maintained

Whilst these are statistical relationships the figure of 264 additional people either killed or seriously injured on Plymouths Roads over that period is sobering. The latest Dft estimated costs to the community in terms of productivity, congestion, Insurance, Emergency Service attendance and Highway Authority mobilisations of Fatal, Serious and Slight collisions in are as follows (2019 Data)

Category	Cost (£)	PCC Collisions	Casualties	Monetary Value
Fatal	2,120,000	4	4	£ 8,480,000
Serious	246,109	87	88	£ 21,411,483
Slight	24,960	393	517	£ 9,809,280

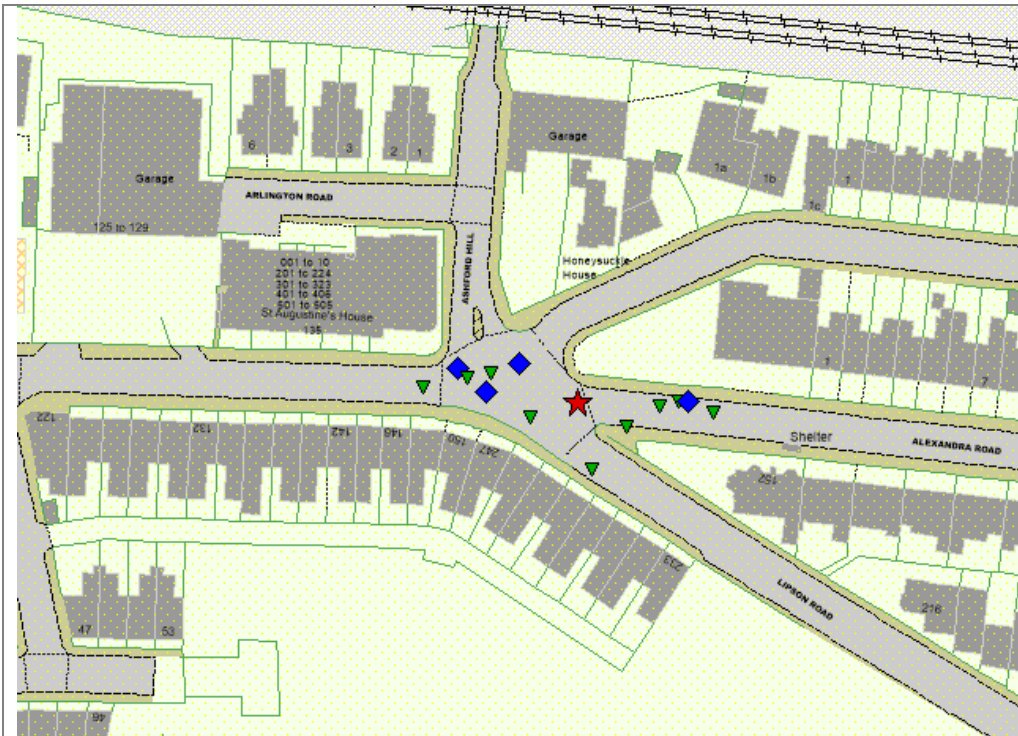
Average Cost per Injury Collision is £101,415

We are currently using 2019 data as 2020 and 2021 have shown reductions due to the significant reduction in traffic volumes over that period. Regrettably, the figures are expected to return to 2019 levels unless further intervention can be funded.

The current year’s Casualty Reduction Review for Plymouth has identified 27 Cluster sites around the City where there have been 255 all injury casualties over the last 5 year period. 2 of these were fatal and 53 classed as serious It is estimated that up to 10% of these casualties could be saved in the first year through a variety of interventions totalling approx. £700,000. The available budget is expected to be £77,000. The cost saving to the Community would be in the region of £2.2m in the first year giving a First Year Rate of Return (FYRR) of 318% with expected benefits to continue with ongoing future reductions in collisions.

The plan below shows a signalised junction in the City where there has been 1 Fatal, 4 Serious and 9 Slight Injury Collisions over the last 5 year period. The estimated cost to the community over 5 years has therefore been £3,329,076. The cost of making this junction safer and more functional for road users would be in the region of £200,000. With a 10% saving in the first year the FYRR would be 166%.

The City Council has signed up to challenging collision reduction targets through its membership of the Vision Zero Partnership. In order to make headway in reducing Killed and Seriously Injured casualties by 50% of the 2018 average by 2030 we need to be taking casualty reduction in the City seriously. The annual bid for the next 5 years for the collision reduction programme is therefore £700,000.



Direction Sign Replacement

The team has designed and implemented in the region of £500,000 worth of signing improvements on the resilient network over the last 2 years using funding allocated for the Mayflower 400 project. Whilst the project has delivered significant improvements the surveys undertaken have indicated scope for significant additional improvements to the signing stock on other routes throughout the city

Many of the signs that remain to be replaced are approaching 50 years old, have post supports that are corroded and are illuminated which would not be required if a modern reflectorised sign face were used. These signs are often unsightly, give out of date information and are not in the correct place to be seen by the travelling public due to changes on the network since they were erected.

This theme would look to complete the work started under the Mayflower 400 project by identifying opportunities to remove sign clutter, rationalise the information provided, save on energy usage enhance the streetscape and ensure that directions for the travelling public are visible, clear and up to date. It is estimated that the project will be largely complete in 5 years and that there will be a smaller budgetary requirement ongoing. There is currently no budget available for this work.

Summary

In order to provide Ward Councillors with a clear programme to demonstrate progress toward compliance with the DDA and to make significant progress towards the 50% by 2030 reduction in Killed and Seriously injured target the City Council has signed up to via the Vision Zero Southwest Partnership

Overall Summary

Overall this business case outlines the necessity for the Council to invest in its local infrastructure and ensure that the Council's objective of being a welcoming city is realised.

- Providing a safer and sustainable highway network
- Managing the volume of Safety defects across all highway assets
- Managing the volume of third-party claims
- Reducing the rate of failure for critical assets and improve its resilience
- Improve public perception and satisfaction with the highway network
- Reduce the burden on the revenue budget
- Get better value for money
- Better collaboration with supply chain
- Supporting Climate Agenda

If the Council were to decide not to proceed with this proposal there would be several risks that would need to be closely managed and maintained. These include:

- Dissatisfaction of both members and the public with the condition of roads and footways, this could include the return of media pressures such as “Pothole Pete”.
- Increased number of carriageway and footway defects which will cause significant pressure on the existing revenue budget which is also being reduced.
- Failure of critical assets, such as highway structures or closure of trafficked routes across the city. For example Cot Hill Bridge over the main railway link into the City from the east was recognised as being in awakened position and was then subject to a 7.5T Weight Restriction for several years to mitigate further damage. In order to bring this bridge up to strength, a required spend of ca. £2 million was required.
- Increased number of successful third party claims against the Council for personal injury or damage to property – In Fy 21/22 a total value of £139,133 was paid in carriageway defect claims, an average approximately £9k per successful carriageway claim and £268,254 £19k per successful footway claim, an average of £19k per successful footway claim.
- Increased reliance on revenue funding for reactive maintenance. The major element of Revenue funding for Plymouth Highways is provided by the Parking Service. Parking Revenue over time has been on a decreasing trend as demand for both on street and off street parking has decreased with the increase in internet sales and decline in the City Centre as a shopping destination. This trend has increased through and beyond the Pandemic. Revenue budgets are therefore static and there is no scope to adjust for the effects of inflation or the increasing number of carriageway defects which would occur under this scenario.

Option Analysis: (Provide an analysis of ‘other’ options which were considered and discounted, the options considered must be a ‘do Nothing’ and ‘do minimum’ and ‘viable alternative’ options. A SWOT – Strength, Benefit, Opportunity, Threat analysis could be attached as an appendix).
Copy and paste table if you need options 4,5 and 6.

Criteria	Option 1	Option 2	
Proposed Solution:	No further capital investment		
List Benefits:	None		
List Risk / Issues:			
Cost:	£0		
Why did you discount this option	No future proof strategy, Long term impact on revenue, CO ² emissions unacceptable		

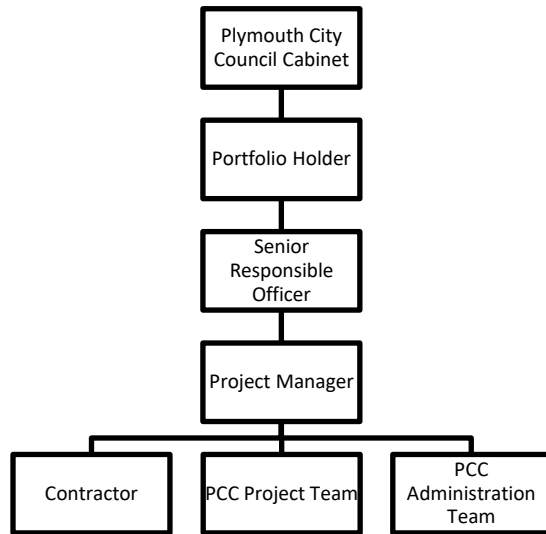
Strategic Case:	
Which Corporate Plan priorities does this project deliver?	an efficient transport network
	focus on prevention and early intervention
	a welcoming city
Explain how the project delivers or supports delivery of Joint Local Plan/Plymouth Plan Policies (include policy references)	<p>An Efficient Transport Network: By investing capital funding into the highway network, we are adding value to the network and improving its condition overall. In doing this we will be providing a safer, more robust and resilient highway network to support efficient travel across the city.</p> <p>Focus on Prevention and Early Intervention: The asset management approach that has been used to build this business case utilises the components of prevention and early intervention to apply best value for money treatments to the models.</p>

	<p>A Welcoming City: The highway network is used on a daily basis by all residents and those visiting the city. By adding value into the network through capital schemes the aesthetic of the city is improved and offers a more welcoming atmosphere.</p> <p>This project also supports the following policies in the Joint local Plan:</p> <p>SO12 - Delivering infrastructure and investment by allowing for a longer term data led programme of infrastructure investment</p> <p>SPT9 - Strategic principles for transport planning and strategy by supporting the existing transport network to support the move to genuine alternative ways to travel.</p>
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Project Scope: (To avoid scope creep and cost escalation it is important to have an agreed scope of what the project will and will not deliver. List below what is included and not included in the project 'budget'. Projects should be delivered within scope and budget, but should project change happen then the business case requires revisiting, updating and re-approval)

In Scope	Out of Scope
Highway Maintainable at the Public Expense (HMPE)	Private roads and non HMPE

Project Governance: How the project delivery is structured (amend inserted chart as appropriate)
 High Risk Projects will require a Project Board Chaired by Portfolio Holder
 Low Risk Projects will require a structured Project Team reporting to Portfolio Holder



Milestones and Date:		
Contract Award Date	Start On Site Date	Completion Date
1/4/23	1/4/23	31/3/24

Who are the key customers and Stakeholders	Electorate Council	Which Partners are you working with	SWH
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SECTION 2: PROJECT RISK, OUTCOMES AND BENEFITS

Risk Register: *The Risk Register/Risk Log is a master document created during the early stages of a project. It includes information about each identified risk, level of risk, who owns it and what measures are in place to mitigate the risk).* **The Risk Register/Log must accompany the business case.**

Have you completed a Risk Register / Risk Log If so, include as Appendix I	No Not Included
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Outcomes and Benefits: List the outcomes and benefits expected from this project.

(An **outcome** is the result of the change derived from using the project's deliverables. This section should describe the anticipated outcome)

(A **benefit** is the measurable improvement resulting from an outcome that is perceived as an advantage. Benefits are the expected value to be delivered by the project, measurable whenever possible)

Financial outcomes and benefits:

Reduced risk from insurance cases due to targeted approach on critical assets.

Reduced impact on long term financial requirement due to timely investment.

Avoidance of costly critical asset failure and associated economic disruption

Non-financial outcomes and benefits:

Enhanced public safety

Improved critical transport infrastructure

Greater resilience in highways assets

Supporting sustainable transport

Supporting Environmental aims such as assisting with the climate emergency

SECTION 3: CONSULTATION

Does this business case need to go to CMT	Yes	Date business case approved by CMT (if required)	
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Have you engaged with Planning Department.	No
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If so, summarise the planning requirements.

(If PP is required ensure you engage with planning prior to seeking approval of this Business Case)

Is the budget cost reflective of planning requirements

Who is the Planning Officer you consulted with.

Planning Consent Date N/A

Have you engaged with Building Control. (If no, please state the reason)	No Not Applicable
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Is the Building Control pre-application registered

What is the pre-application number

Is this classed as a HRRB building No

Is this building classed as 'high risk' No

Who is the Building Control Case Officer Select Case Officer Name

Low Carbon	
What is the anticipated impact of the proposal on carbon emission	This project will support the transition and uptake of more sustainable forms of transport such as public transport, walking and cycling by maximising lit environment. Also resultant Carbon Emission reduction is mapped
How does it contribute to the Council Carbon neutral by 2030.	Opportunity to reengineer existing asset layout to reduce energy consumption and CO2 emissions.

Have you engaged with Procurement Service.	No
Procurement route options considered for goods, services or works.	
Procurements Recommended route.	
Who is your Procurement Lead.	

Which Members have you engaged with and how have they been consulted (including the Leader, Portfolio Holders and Ward Members)	COUNCILLOR MARK COKER (CABINET MEMBER FOR STRATEGIC PLANNING AND TRANSPORT) 23/05/2023 COUNCILLOR MARK LOWRY (CABINET MEMBER FOR FINANCE) 26/05/2023
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Confirm you have taken necessary Legal advice, is this proposal State Aid compliant, if yes please explain why.	
Who is your Legal advisor you have consulted with.	NATALIE GLOYN – LS/I 386 A/J/P/230523

Equalities Impact Assessment completed (This is a working document which should inform the project throughout its development. The final version will need to be submitted with your Executive Decision)	Yes
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SECTION 4: FINANCIAL ASSESSMENT

FINANCIAL ASSESSMENT: *In this section the robustness of the proposals should be set out in financial terms. The Project Manager will need to work closely with the capital and revenue finance teams to ensure that these sections demonstrate the affordability of the proposals to the Council as a whole. Exact amounts only throughout the paper - not to be rounded.*

CAPITAL COSTS AND FINANCING

Breakdown of project costs including fees surveys and contingency	Prev. Yr.	22/23	23/24	24/25	25/26	26/27	Future Yrs.	Total
	£	£	£	£	£	£	£	£
Street Furniture			185,470					185,470
Carriageway			1,560,722					1,560,722
Footway			1,149,469					1,149,469

Drainage			5,092					5,092
Local Safety & Minor Schemes			359,954					359,954
Living Street			25,000					25,000
Keep Plymouth Moving/20mph Zones			133,293					133,293
Traffic Signals			738,815					738,815
Structure			300,000					300,000
Total capital spend			4,457,815					4,457,815

Provide details of proposed funding: Funding to match with Project Value								
Breakdown of proposed funding	Prev . Yr. £	22/23 £	23/24 £	24/25 £	25/26 £	26/27 £	Future Yrs. £	Total £
DfT Incentive Fund 2023/24	-	-	323,000	-	-	-	-	323,000
DfT Pothole Fund 2023/24	-	-	1,290,000	-	-	-	-	1,290,000
DfT Maintenance Block Fund 2023/24	-	-	1,290,000	-	-	-	-	1,290,000
DfT Additional Pothole Funding 2023/24	-	-	516,000	-	-	-	-	516,000
Adj. for DfT Provisional Allocation v's Actual Allocations 19/20 – 21/22	-	-	1,038,815	-	-	-	-	1,038,815
Total New funding	-	-	4,457,815	-	-	-	-	4,457,815

S106 or CIL (Provide Planning App or site numbers)	
Which alternative external funding sources been explored (Provide evidence)	N/A
Are there any bidding constraints and/or any restrictions or conditions attached to your funding	N/A
Tax and VAT implications	The provision of Highway Maintenance is a statutory, non-business activity of the Council. The VAT incurred on costs relating to this project will be fully recoverable, therefore, and there will be no adverse impact on the Council's partial exemption position.
Tax and VAT reviewed by	Sarah Scott

Will this project deliver capital receipts? (If so please provide details)	N/A		
Schemes in excess of £0.5m should be supported by a Cost Benefit Analysis. Calculations undertaken should be attached as an appendix to support financial implications shown below. Please contact your revenue accountant for assistance with this section.			
Is the capital ask greater than £0.5m	Y	If the answer is yes, have you attached the Cost Benefit Analysis	N

REVENUE COSTS AND IMPLICATIONS

Cost of Developing the Capital Project (To be incurred at risk to Service area)

Total Cost of developing the project	£0
Revenue cost code for the development costs	-
Revenue costs incurred for developing the project are to be included in the capital total, some of the expenditure could be capitalised if it meets the criteria	N
Budget Managers Name	Philip Bellamy

Ongoing Revenue Implications for Service Area

	Prev. Yr.	22/23 £m	23/24 £m	24/25 £m	25/26 £m	26/27 £m	Future yearly
Service area revenue cost							
Loan repayment (terms agreed with Treasury Management)	-	-	-				
Maintenance Costs	-	-	-				
Total Revenue Cost (A)	-	-	-				
Service area revenue benefits/savings							
Energy Consumption	-	-					
Maintenance	-	-					
Total Revenue Savings (B)	-	-					
Service area net (benefit) cost (B-A)	-	-					
Has the revenue cost been budgeted for or would this make a revenue pressure	There are no revenue implications if the 2023-24 Highways Capital Budget Allocation is approved. If not approved there would be insufficient funds to continue effective delivery of works and impact to revenue pressures.						
Which cost centre would the revenue pressure be shown			Has this been reviewed by the budget manager				
Name of budget manager	Philip Bellamy						
Loan value	£0	Interest Rate	%	Term Years	Annual Repayment	£0	
Revenue code for annual repayments							

Service area or corporate borrowing	N/A
Revenue implications reviewed by	Jozef Lewis

Version Control: (The version control table must be updated and signed off each time a change is made to the document to provide an audit trail for the revision and update of draft and final versions)


Author of Business Case	Date	Document Version	Reviewed By	Date
Phil Bellamy	9/3/23	1	Ruth Didymus	15/03/23
Phil Bellamy	5/05/23	2	Lynn Walter	5/05/23

SECTION 6 : RECOMMENDATION AND ENDORSEMENT

Recommended Decision

It is recommended that the Leader of the Council:

- Approves the allocation of £3,419,000 Draft Funding into the 2023/24 Capital Programme;
- Approves the allocation of £1,038,815 of prior years' Draft funding allocation into the 2023/24 Capital Programme;
- Approves the Capital Highways works Programme (1 year delivery 2023/24) and associated budget allocations as laid out in Table I of the Business Case.

Councillor Tudor Evans OBE, Leader of Plymouth City Council		[Name, department]	
Either email dated:	<i>date</i>	Either email dated:	<i>date</i>
		Signed:	
Or signed:			
Date: 27/06/2023		Date:	
Service Director			
Philip Robinson – Street Scene & Waste			
Either email dated:		Date 30/05/2023	
Signed: Philip Robinson			
Date:			