MILLBAY BOULEVARD & ASSOCIATED WORKS PLYMOUTH

Submission to the RTPI Awards for Excellence in Planning Delivery 2.7.2021

"Beautiful and innovative inner city streetscape embedded with holistic benefits designed to address the effects of climate change."

"This innovative urban streetscape just keeps giving to its people, providing not just a wonderful environment, but provides future answers to some of the toughest climate change challenges the world faces.
The reimagined street which connects Plymouth's city centre to the sea has transformed what was a dark and narrow back-street into one of the city's best addresses. In achieving this the city has put planning at the fore and trusted its policies to deliver a holistic set of sustainable and low carbon technologies into a scheme which is a living example of how we should approach tomorrow."

Project Background

Millbay Boulevard and its associated works is a catalyst project devised to encourage and activate the delivery of a new waterside community for Plymouth at Millbay.
It is part of a wider development strategy that has been taking place at Millbay for the past 15 years and has its roots in the normal plan making process which was set out recently as clear housing led allocation sites in the Council's Joint Local Plan.

The idea for a Boulevard was simple, it was to be a beautiful, safe and convenient route forged between Plymouth's City Centre and its rapidly developing Millbay Waterfront. This would be a strategic piece of infrastructure designed primarily to encourage walking and cycling between the two venues.

That aspiration has now been met, but to get there a remarkable transformation has taken place over what was a narrow and dark back-street which has undergone a 2 year remodelling, demolition and public realm construction programme.

These works began in winter 2019 and was completed in June 2021.

It now reveals and accommodates a totally new environment which has doubled the width of the street to form a Boulevard of generous pedestrian pavements and detailed with robust distinctive hard and appealing soft landscape design.

The Boulevard is embedded with a sustainable urban drainage system which uses water wisely and conveys all surface water run off to a system of rain gardens feeding 26 new trees and 625 sqm of important green infrastructure. Any surplus is then stored and slowly released in subterranean tanks which otherwise at times of heavy rain and high tide would cause localised flooding.

The Boulevard also has the first phase of Plymouths new warm water aquifer fed district heating system that runs the full length of the street and multiple spurs have been provided east and west for future connections to the planned housing led redevelopment sites.

The Boulevard is the setting and focus for redevelopment here, with housing led allocation sites all around it, the policies seek the construction of sustainable development in the form of 623 new homes and anticipate a composition of mixed

uses including hotels, business in the form of offices, leisure based uses, community and small scale retailing which might activate ground floor uses and animate key corners.

This action by Plymouth City Council to create the Boulevard was decisive and masterminded by the Planning Department here, but was also supported at the highest level by its city partners. Timed back in September of 2019 to buck a period of uncertainty in the market to reinvigorate economic activity it was meant to alert the development world that Plymouth is still in business and confident enough to make significant investment to promote the growth of the city and deliver high quality infrastructure.

This action has borne fruit with plans to deliver the housing sites going through pre-application stage discussions, redevelopment of vacant buildings taking place on Union Street to the north and work just starting on site to deliver a 200 bed hotel right on the Boulevard's most southerly key corner. All this demonstrates that the momentum for positive and memorable change is in place.

1. Outcomes for People & Communities

The Millbay Boulevard project aims to repair the disconnect between the city's waterfront at Millbay Dock and Plymouth's City Centre and aspires to become the route of choice for people to use between the two venues. This would generate footfall and activate the pedestrian pound, both of which could be harnessed to support the investment and marketing of the 623 new homes planned east and west of it and deliver opportunities for businesses and jobs via the mixed use accommodation adjacent and fronting the new route.

The associated redevelopment would in time help to secure up to £3.28 Million of New Homes Bonus growth dividend for the City Council from the new communities being delivered and secure circa £3.95 Million in council tax and business rate income which would support council's services; some of which inevitably would be recycled back into the planning process to deliver more change.
This self-sustaining process will totally transform this tired part of Plymouth into a vibrant and exciting quarter of the City with Millbay Docks and the sea as enticement at one end and Plymouth's rapidly transforming City Centre at the other. In the middle the Boulevard acts as a catalyst for change, and this change creates a setting of quality which will provide a strong address for residential living and setting to the new mixed use developments, assisting the economy with sales, letting and marketing of new homes and businesses.

This new Boulevard would help change the mental map of those who move around the city and would make this link the route of choice where people would experience a high quality and vibrant public realm leading them from Plymouth City Centre to the waterside at Millbay. Thereafter this positive experience should demonstrate how pleasurable and convenient it is to walk and cycle between these destinations such that no one would want to do that journey otherwise. This change in mental attitude must be a driver for better health and wellbeing and could have spin off consequences where people extend their journeys as their curiosity and stamina improves.

The project at an early stage engaged with vulnerable groups to talk through the issues of access and in particular access and mobility for those who were partially sighted, blind and those with physical impairments to ensure the maximum

consideration was given to their mobility. Consequently design details such as rain garden raised edging and tactile paving was discussed at length and design details developed to favour their concerns and needs.

2. Planning Contribution

The architect and city planner David Mackay first mooted the boulevard as a critical link when the City in 2003 embarked on its journey to produce Plymouth's Local Development Framework, and it took an experienced, imaginative and critical thinking mind like his to understand the significance of this gesture, and the City embraced it. The drive to forge the link and repair the disconnect between sea and city was powerful, and numerous attempts to draw the line and realise the vision that David Mackay had ignited proved difficult. Significant occupied buildings stood in its way, costly infrastructure challenges became evident and significant level changes would have to be overcome if the City was to follow David's line on the plan. Working with Plymouth's talented planning case officers English Cities Fund backed a redevelopment plan around Millbay Docks to deliver 740 new homes just south of the Boulevard and began to realise it.
During this time it became obvious that the route had to shift westwards and take an unglamorous diversion along what was known as Bath Street. At the time it was hard to imagine this could be an impressive route or even a link given it was hidden behind a large pedestrian footbridge and suppressed by the rear service elevation of the City's Pavilions Arena leisure complex, lacking totally any active frontage.

It was clear significant change had to take place to activate this route and the plan became as much about removing negative objects as it would about added in public realm quality. None of this would have been possible if the current owner and operator of Plymouth Pavilion's hadn't supported the change and allowed the Council to acquire the additional space to allow the Boulevard to be formed. Also their co-operation along with other local businesses and the community with the demolition of footbridges and redundant vehicle ramp structures was key.

Having multiple skills embedded in the Local Planning Authority which supported the plan making and application process meant that Landscape and Urban Design acumen could be deployed to make this detail change happen and manage that change in a holistic way such that the maximum benefit could be realised for the people of Plymouth. This in itself is arguably the best decision the Local Planning Authority made and allowed its design officers to take charge of the project and working directly with its planning case officers to co-ordinate all aspects of this change which meant the project realised some considerable policy objectives particularly in respect of low carbon initiatives.

Active partnerships were made with the businesses adjacent landowners the community and the team went hunting for funding that ultimately saw the following results:

<u>Millbay Boulevard & Associated Works Budget Overview.</u>
Plymouth City Council (PCC) Corporate Borrowing £2,910,503.
Central Gov't MHCLG Land Release Grant £2,500,000.
PCC LPA Developers Contributions (106) £428,208.
ERDF EU Interreg 2 seas WRC £415,643.
ERDF EU Heat Net Grant £147,000.
TOTAL £6,747,654.

3. Outcomes for Climate Action

The delivery plan that the city then followed with Landscape & Urban Design thinking at the helm meant that sustainability standards and low carbon goals became paramount. Officers argued that it was imperative that the city maximised its investment in low carbon infrastructure once the ground was opened up and retrofitting began; as it would be twice as expensive to do it anytime later, so the following benefits were embedded as the city's first inner city holistic response to the current climate emergency:

1. A sustainable urban drainage system which conveys all surface water run off to a system of rain gardens feeding 26 new trees and 625 sqm of important green infrastructure. Any surplus water not required by the planting as irrigation would naturally work its way by gravity to a system of storage attenuation tanks below the planting capable of holding 250 cubic metres of storm water should a rainfall exceedance event take place and it combined with high tides mean that this low point of Plymouth City Centre would be protected against flooding. The scheme protects an area of 1.7 square kilometres in this regard and aligns with the City's Flood Management Strategy.

2. A system of District Heating pipework running the entire 0.25 km stretch of the boulevard providing multiple connections east and west ready to accept connectivity to the future development sites and fed from Plymouth's warm water aquifer some 100 metres below ground. This system will provide very affordable heating and cooling technology to the many homes offices and mixed use redevelopments which were mentioned earlier in this statement.

3. The provision of a community events space equipped with power and water and capable of supporting small events and performances to enliven the space and support the existing and emerging community with improved opportunities for positive cultural experiences.

4. A system of ducting available for a future 5G network of communications.

5. A system of ducting to accept an extension to the city's CCTV network.

6. Electrical 3 phase infrastructure to provide a maximum of 3 on street rapid electric vehicle charging stations in response to the City's plan for rolling out such low carbon technology.

7. As a key indicator of a civilised society, the project provides for the city a bottle fill drinking fountain, providing safe clean drinking water to the people of Plymouth free of charge.

4. Outcomes for Sustainable Development

<u>Of the 17 UN Goals the project directly supports 7 of them as set out below:</u>

Goal 3. Good Health & Wellbeing - By providing a beautiful and relatively car free walking and cycling link between communities we believe we are supporting measures which encourage active lifestyles and as a result better health and wellbeing for all peoples.

Goal 6. Clean Water & Sanitation - By embedding a sustainable urban drainage system that uses water wisely and avoids a combined system.

Goal 7. Affordable Clean Energy - Through the provision of a comprehensive district heating system capable of exchanging heat and cold.

Goal 9. Industry innovation and infrastructure - This project has built resilient infrastructure, and promoted innovation through collaboration with specialists here and with partners in Europe, for example through the EU Interreg Water Resilient Cities programme and with our own experience of what works best from our maintenance teams.
Goal 11. Sustainable Cities and Communities - Make cities and human settlements inclusive, safe, resilient and sustainable.
Goal 13. Climate Action - Above all the goals this one is this projects mantra and the team are proud to understand they took urgent action to take this small step to combat some of the effects of climate change and its impacts.
Goal 15. Life on land - This project has taken what was a total manmade urban crust, perforating it with embedded clean earth offering a multitude of opportunities for life on this land beyond sole human habitation.

And indirectly 4 of them as below:
Goal 1. No poverty - The project indirectly creates an opportunity here to support the delivery of housing which seeks to achieve at least 30% of units having affordable rents, helping in a small way to address local poverty through housing provision.
Goal 8. Decent Work and Economic Growth -The project indirectly creates an opportunity here to support the delivery of mixed uses including employment and so stimulates economic growth.
Goal 12. Responsible Consumption and Production - the project has recycled existing materials to form the new profiles particularly reprocessing concrete to form useable aggregate, reusing existing historic granite kerbs and setts to form elements of this scheme and within Plymouth generally.
Goal 14. Life Below Water - By using water wisely on land the project has taken the pressure off the water catchment such that the combined sewers in this locality are freer of clean useable water, which would otherwise surcharge the sewer system and at time of exceedance threaten our marine environments. These precious marine resources exist so close to this scheme, and we all feel proud to have protected that marine life in this way.
Goal 17. Partnerships for the Goals - During the Project we engaged with anyone who would listen to explain our intended endeavours and specifically took on the project lead in respect of the Water Resilient Cities programme for the European Union where we worked hand in hand with likeminded people from different cultures to embed these goals.

5. Community Engagement

Plymouth City Council is well known for its statement of community engagement and has developed practices over several plan making processes such that it embraces innovation in public consultation. For this project we built on that experience and set out to engage using our online system and made ourselves available at community venues to talk to the community about our plans and ideas for change and in particular how we would go about embedding low carbon technologies. We were met by an overwhelming support for these plans where 82% of the people we spoke to wanted us to deliver it and 15% unsure leaving only 5% thinking it wasn't a good idea.

We had used computer generated images to explain the look and feel of the completed scheme and spoke to many interested groups who wanted it to be its best and at the end we felt extremely confident that we had the support of the city its key partners and its businesses.

We knew from previous projects that our disability and access forums would need to be engaged with separately in an environment they were comfortable with and as explained above we met with them and fine-tuned the design to ensure equitable access was achieve das best we could through the detailing to the public realm.

6. Leading Practice – explain the challenges you faced in delivering the project.

The actual route to delivery for this project had to be measured and the Delivery Team knew the challenge to create the required space for the Boulevard by demolishing structures was going to be fraught with unknowns. So in order to mitigate those risks it undertook an intrusive study into the feasibility of remodelling the Plymouth Pavilions concert and leisure structure.

The findings of this study showed that an array of critical plant and equipment for the functioning of the Pavilions needed to be moved out of the way of the new route this included the building's air-conditioning system, it's back up electrical generator its emergency sprinkler pump system along with miles of cabling, ducting and pipework. This all had to be done whilst the building was actively functioning and there was a moment in time where significant heavy plant and equipment were on site cutting through 3.5 metres of concrete whilst Plymouth University students were sitting their final exams. Understandably the work paused for a time.

A new separating wall had to be built to make good the cut line at the back of the Pavilions structure. This proved challenging as it would leave a 6.5 metres high boundary wall with a crude concrete vertical wall facing west over the Boulevard and an important future residential led development site. The Team detailed a white rain-screen cladding system, with a 2 metre natural Devonian limestone plinth ensuring it would have the right appearance at ground level and above and be white in colour reflecting light back into the Boulevard.

The process of delivering the Sustainable Urban Drainage, and District Heating systems for the project was novel, both meant engaging with the European Union, securing investment from the European Regional Development Fund, but also involved engaging with its various Interreg programmes. This meant part of the team going to partner cities in Europe mainly within the Flanders area to share Plymouth's challenge and reflect on possible solutions for all teams gathered at these venues. The responses was affirming and gave our team confidence that what they were embarking upon was best practice and appropriate as a response to our climate emergency.

The project was supported by a significant Central Gov't Land release grant of £2.5 Million from MHCLG which Plymouth was under some pressure to expend and so a demolition and construction programme was formulated which ran contracts concurrently to create a seamless flow of activity. That worked fine up to the point, but the foundations of the Pavilions structure proved to be built differently to what the drawn records showed. This created a delay of 8 weeks whilst structural stability was ensured. Concurrently with this the Covid Pandemic hit the project in March of 2020 and the site shut down for 14 weeks whilst the world tried find a way for all construction contracts to open up in a safe and controlled manner.

Overall the project came in 5 months late, but with additional funding secured from the European Union in grant and further 106 Developers Contributions it maintained its expenditure within budget.

7. Does it have regional significance?

Every major development in Plymouth has regional significance, the City's Planning Department attempts to make this so. Plymouth being arguably the regional capital city of Devon, it overshadows its neighbours in its drive and ambition to be a sustainable Ocean City of the 21st century.

This scheme typifies that ambition and demonstrates the City's commitment to growth despite what might be happening anywhere else, and it is strength of character born of its people and its leaders which are its best assets, which has seen it rise from the ashes of the blitz of 1942 and forge ahead to be the best at everything even when it's not.

This project is critically important to the city and to the region at this time because it is a finished example of how one can respond to the climate emergency we find ourselves in. It is also a great example of what can be done within an inner city environment and turn around what was a seemingly a very tough ask, totally transforming one of the city's worst streets into arguably one of its best with an array of best practice sustainable and low carbon solutions anywhere in this country never mind regionally.