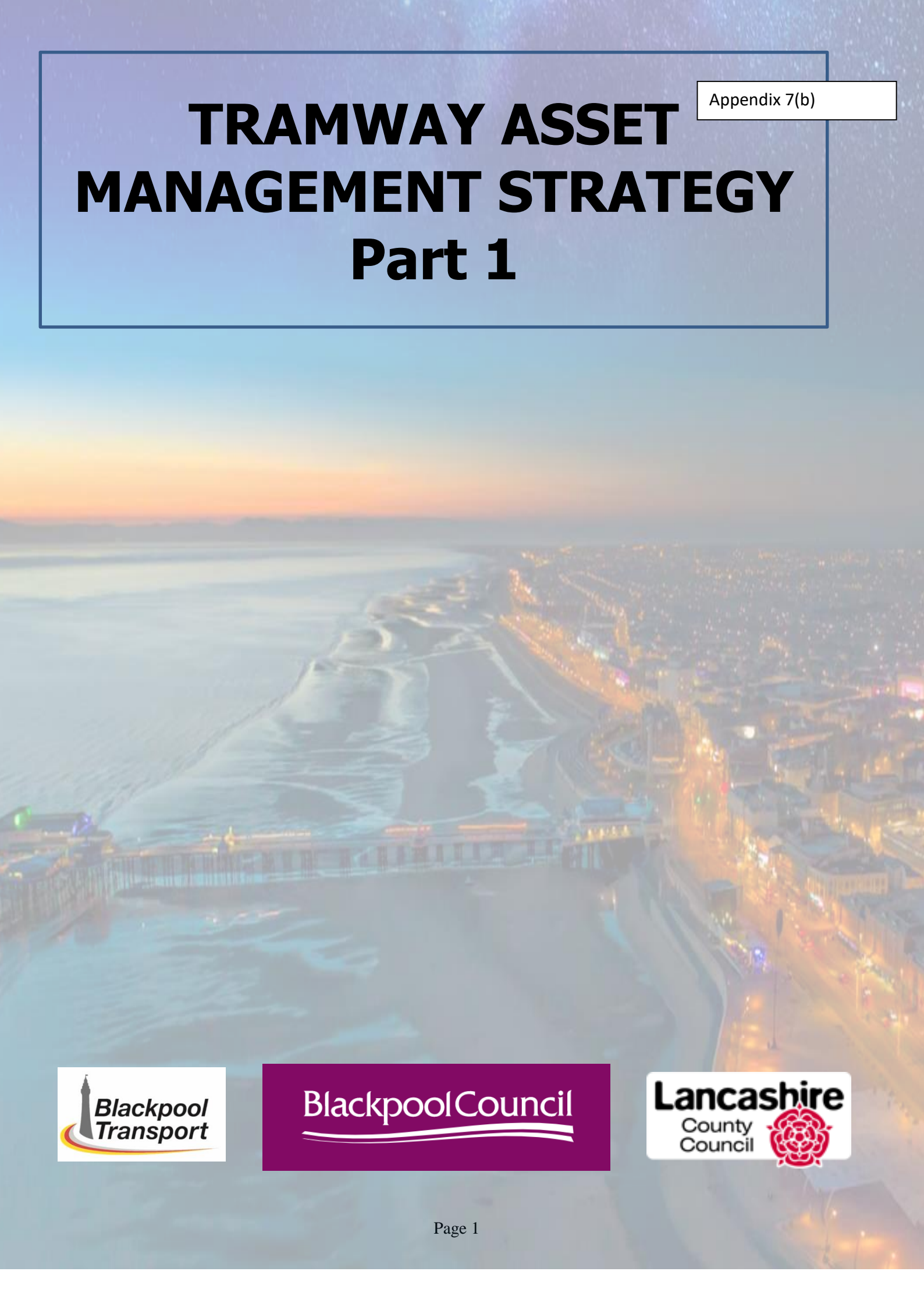


# TRAMWAY ASSET MANAGEMENT STRATEGY Part 1



# Tramway Asset Management Strategy

## Part 1

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# **Introduction**

## **Scope**

This document relates to the Blackpool and Fleetwood Tramway – referred to herein as the Tramway. In order to ensure that the Tramway system continues to operate into the future, its ongoing maintenance and renewal requirements need to be placed on a sustainable footing. Although having a relatively new system provides a head start, maintenance issues are emerging and a strategy and plan to deal with these is required.

Drafted in the spring of 2022, this document sets out the Council's policy and strategic approach for management and maintenance of the Tramway's infrastructure assets. The document will neither be a static nor an isolated document. It will form a link between the corporate goals and objectives in the Council Strategy and the Tramway Asset Management Plan controlling the actual delivery of Tramway maintenance services. It will provide a framework which can be reviewed continuously to take into account changes in legislation, funding and the expectations of the Tramway network users.

This Tramway Asset Management Strategy (TAMS) sits within a defined Tramway Asset Management Framework, which is described in full in Section 6 of this document.

This document is subject to annual review and update as required.

## **A Brief Description of the Tramway**

The Tramway runs from Blackpool Starr Gate to Fleetwood Ferry and will soon include a branch to North Station. It is located within the boundaries of two local authorities, namely Blackpool Council, referred to herein as the Council, and Wyre Council. By agreement with Lancashire County Council, the authority responsible for transport services within Wyre Council, Blackpool Council's department of Highways and Traffic Management Track Services Division (herein called Track Services (TS)) undertake the maintenance of the entire Tramway permanent way, including that located within Wyre Council.

Blackpool & Fleetwood Tramway is owned by Blackpool Council (BC) and operated under licence by Blackpool Transport Services (BTS). BC and BTS work in close partnership to ensure the continued safe delivery of a unique tram experience that conveys an annual patronage of circa 5.5 million passengers.

The network operates on a combined service pattern of the LRT Bombardier Flexity2 Fleet at varied intervals, supplemented by a B-Fleet and the Heritage Fleet during busier periods. This delivers a 5-minute service headway during periods of greatest passenger demand. All regular service trams are compliant to Rail Vehicle Accessibility Regulations 1998 including some of the heritage stock that have been modified to provide inclusive access for mobility impaired customers.

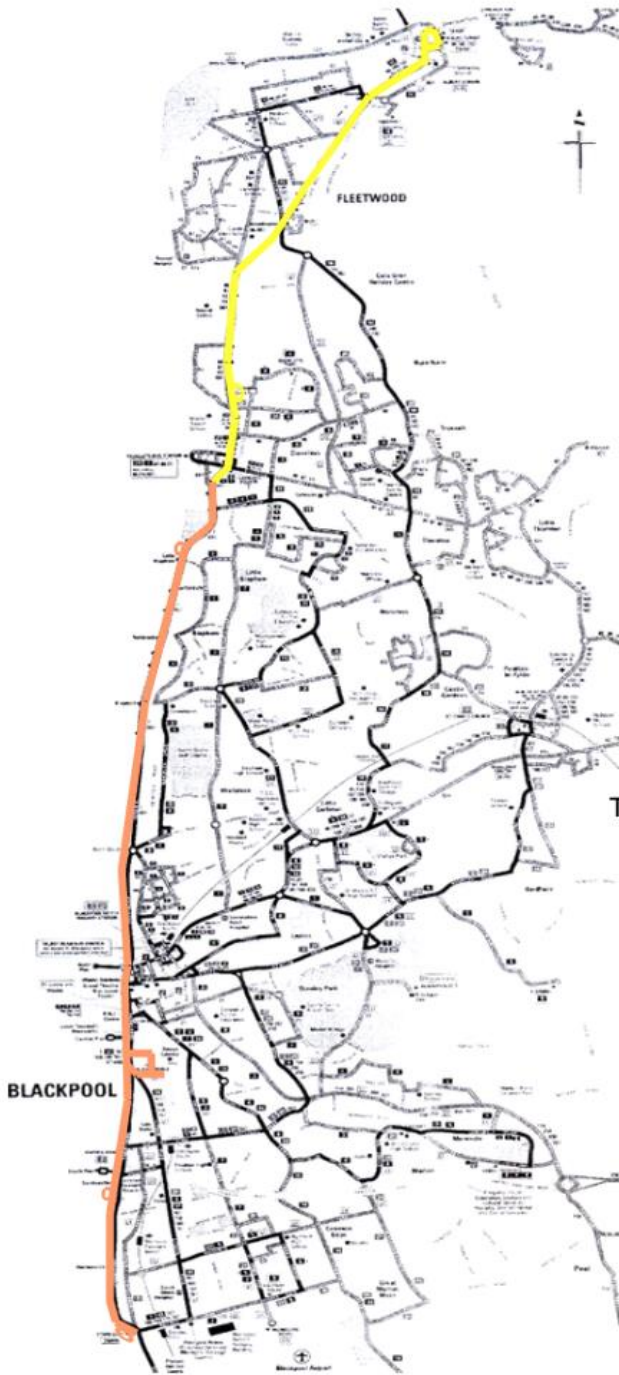
## History of the Tramway

The Tramway is an iconic feature of the Fylde coastline and the heritage trams are a major tourist attraction which enables Blackpool to maintain its status as the UK's busiest seaside resort. Opened in 1885 and modernised in 1920's, 1930's and 2010's, it is one of the oldest electric tramways in the world and the only remaining first generation tramway in the UK.



The Tramway has been a transport asset for the Fylde Coast since local networks were amalgamated in 1926. Following the demise of all British light rail and trolley bus systems by the 1970s, the system effectively became a tourist attraction in its own right, as well as a mass transit resource, and something of a mecca for public transport enthusiasts. The ingenuity of the various maintenance teams kept this system viable and operating into the 2000s, at which point it became clear that it was becoming unsustainable and, without major works, would be forced to close.

In 2012, a £100 million pound upgrade of the system was completed which saw the replacement of 11 miles of track and introduction of a fleet of 16 state-of-the-art (Bombardier Flexity2's) trams. The work also included refurbishment of the Rigby Road Depot and creation of a new eco-depot at Starr Gate. The new trams had level boarding and step-free interiors and designated disabled/pushchair areas making them accessible to all. The upgraded system provided faster journey times along the Fylde coast, with easy access and integrated Blackpool1 tickets.



**Key**

Wyre Borough Council

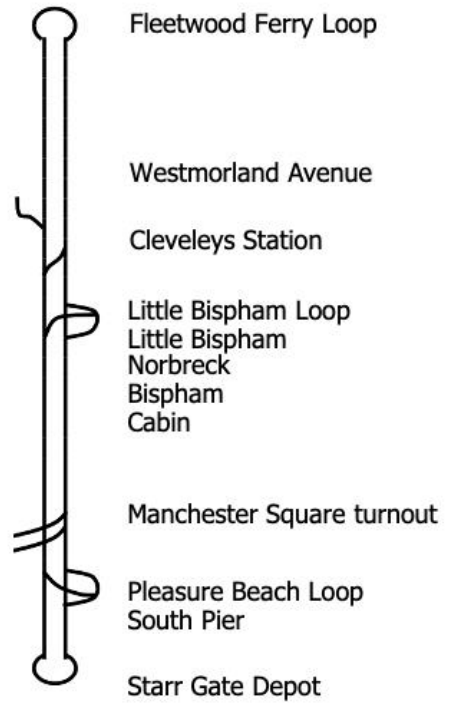
Blackpool Council

Sidings or turn Circle

The Border change is at Kingsway Avenue Cleveleys

Thornton Gate Stockyard

Rigby Road Depot



## **Future of the Tramway**

The branch to North Station will be reintroduced to the Tramway network in 2023.

The Tramway still retains a number of the original Heritage Fleet which provide a major attraction benefiting the economy of the area to the tune of £1.6bN. In total the Tramway annually currently carries more than 5.5 million passengers. It also provides employment to approximately 230 people. This modernised light rail system provides accessible, reliable and affordable transport to local residents, school children, commuters, local businesses and visitors. It is integral to the economy and lives of the people of Blackpool enhancing the social value of the Town.

The sustainable future of the Tramway is entirely dependent on funding. As such any plans, both to maintain the existing Tramway network and to expand the network, are provisional.

All parties contributing to the running of the Tramway are fortunate in having expert tramway maintenance teams with many years' experience in their respective roles. These teams need to be secured with training and apprenticeship schemes.



Future expansion plans for the Tramway potentially include the spurs associated with the Blackpool central development and the Fylde Coast Tram Loop. It is noted however that the latter is more likely to be heavy rail rather than light rail due to a reluctance to invest in light rail by LCC. Any extensions to the existing network should take into account the requirements of this Strategy and follow the processes established within the Tramway Asset Management Plan.

# 1. What is Infrastructure Asset Management?

## General

Infrastructure Asset Management can be considered as a way of managing and maintaining assets that make best use of the funding available by optimising the timing and nature of maintenance and repairs. It promotes an understanding of the value of the assets and the costs associated with maintaining those assets to avoid further deterioration in their condition. Applying the principles of asset management to the Tramway helps achieve a more structured, evidence based, long-term approach to maintaining the Tramway and to resist expensive, short-term actions.

A key aspect of asset management is customer focus, and an effective asset management programme should focus on the service provided by the asset (compared against customer expectations) rather than simply on its technical condition. Technical condition can often be measured and evaluated in a straightforward manner by standardised scoring, but it may not necessarily reflect how the public actually view or interact with the asset.

The principles of asset management can be summarised as follows:

- Complying with statutory obligations
- Meeting users' needs in terms of accessibility, usability, comfort and safety
- Ensuring availability, especially during severe weather
- Maintaining reliability due to day-to-day wear
- Enhancing condition
- Minimising cost over time
- Reducing the impact on the environment

The potential benefits of adopting asset management practices include:

- Enable maintenance works to be undertaken to ensure the infrastructure is safe to be used
- Recording an inventory of assets and what condition they are in
- Understanding the risks associated with aged infrastructure
- Providing an audit trail of asset condition
- Allowing informed financial decisions to be made
- Assisting with managing public expectations
- Formalising document standards, leading to consistency of practices

## The Asset Management Hierarchy

An important focal point for delivering improved asset management is to give clarity and definition to organisational management levels. The management processes in organisations such as Blackpool Council can be broadly categorised into three levels, namely strategic, tactical and operational. An idealised hierarchy of these management levels is presented below.



Asset management should align with integrated planning and decision-making at the strategic, tactical and operational levels. The broad scope of asset management functions in the three levels can be summarised as follows:

- **Strategic - Where are we going and why?** At the strategic level, the Council and BTS promote their overall long-term direction for the Tramway e.g. policy, goals and objectives, and targets. These are agreed in consultation with Council Members and the Executive and other partners and take into account any necessary internal/external requirements and/or constraints. The Tramway Asset Management Policy & Strategy (TAMS) are key outputs at this level.
- **Tactical - What is worth doing and when?** At the tactical level, the Tramway asset managers translate the strategic goals and objectives into plans and performance targets for individual asset types. The development and deployment of the Tramway Asset Management Plan (TAMP) is a tactical activity.
- **Operational - How to do the right things?** At the operational level, the Tramway asset managers, engineers, technicians and operatives develop and implement detailed work plans and schedules that have a short-term outlook but take account of the work volumes and phasing arising from the TAMP. Engineering processes include inspection, routine maintenance, scheme design, work scheduling and implementation. The focus is on choosing the right techniques, the right materials and carrying out the work in the most efficient way. Forward Works Programme Delivery activities are key outputs from this process.



## 2. Key Drivers for an Asset Management Approach

### Political Commitment

The Council, as a corporate body and individual elected members, will set high level targets and work standards. To realise these targets in an effective and efficient manner, a structured approach such as that provided by best practice Asset Management is needed.

### Legislation, Technical Standards & Codes of Practice

The Tramway is classified as a light rail system. As such is it subject to oversight and regulation by the UK Office of Rail and Road (ORR). ORR is supported by the Light Rail Safety and Standards Board (LRSSB) and HM Safety Inspectorate. The Legislation, Technical Standards and Codes of Practice covering operation and maintenance of the Tramway are published on ORR's and LRSSB's websites.

Useful information on Tramway operation and maintenance can also be found on the website for UKTram, the organisation that represents the Light Rail and Tramway industry.

There are too many documents governing legislation and technical standards related to trams to list them herein and reference should be made to the above referenced websites. However, there are also a number of legislative requirements and guidance documents that have a direct and mandatory impact on the way maintenance and operations are undertaken but which in themselves are not directly related to trams. These include, but are not limited, to the following:

- **The Railways and Transport Safety Act 2003:** This Act adds a duty to ensure, so far as is reasonably practicable, that safe passage is not endangered by snow or ice.
- The **Road Traffic Act 1988** provides powers for the highway authority to promote road safety.
- **Health & Safety: The Construction (Design & Management) Regulations 2003 (CDM2003)** aims to integrate health and safety with project management.
- **Local Government Act 1999:** The Council has a duty to deliver best value in its services and to consult with users of those services on the approach to delivering best value.
- **Civil Contingencies Act 2004:** The Council has a duty as Category 1 responder to assess major risks and plan for emergencies including those associated with transport infrastructure. This may include preventative actions to reduce or mitigate those risks.
- **Flood and Water Management Act 2010:** The Council has a duty as Lead Flood Authority to investigate the causes of flooding and to undertake measures to reduce flood risk.

## **Operating Agreements and Manuals – Development & Review**

The operation and maintenance of the Tramway is split between two parties, namely BTS and TS, with financial input from LCC on whose land the Tramway is operated, with the whole system subject to close audit by ORR. It is therefore crucial that all Agreements, Manuals and the like, including this TAMS, relating to the Tramway are in place, signed as appropriate, up-to-date and consistent. At the time of issue of Version 1.0 of this TAMS, this is not the case. For example, the Blackpool and Fleetwood Tramways Operating and Maintenance Agreement is unsigned and refers to EU legislation. An asset management approach, with good governance, will help ensure that any actions related such documents are cleared recorded and actions assigned as appropriate.

## **Financial: Budget constraints, efficiencies & investment prioritisation**

Good asset management practices, based on LEAN principles, have become essential to ensure that maintenance is achieved with the reductions in maintenance budgets, and the requirement to make sure that any diminishing funds are invested effectively on a prioritised, risk-based approach. Blackpool Council must balance its budget, and Highway & Transportation Services must provide Value for Money to ensure that the maximum value is achieved from the Tramway in the Council.

## **Best Practice**

By looking out for articles, research and other means of exploring good practice, and in analysing actions taken at national, regional and local levels, the Council is committed to learning from best practice outcomes in order to embed a continuous improvement approach.

This includes developing this TAMS and the TAMP to align as appropriate with ISO 5500 (Asset Management) and the International Union of Railways Guidelines of the Application of Asset Management in Railway Infrastructure Organisations.

## **Sustainable Environment**

Adopting a best practice Infrastructure Asset Management approach will assist the Council and BTS to be environmentally sustainable. This includes the following issues:

- Procurement of contractors using the Council's corporate forms of contract and tender award procedure which encourage Social Value.
- Where practical, waste materials will be recycled and use will be made of recycled material, both in the office and on site.

## **The need for Infrastructure Asset Management in Blackpool**

### **• Long-term approach to managing Tramway assets**

Tramway infrastructure assets typically have long lifespans or service lives. However, those service lives do come to an end and whilst it is possible to continue

for some time to manage them with short term treatments, all assets will eventually require some form of major maintenance involving either preventative measures or partial or full replacement. This can lead to variable levels of funding over time. Good asset management provides the opportunity to undertake planned preventative actions that will substantially reduce long term costs. This is a very different view of maintenance to the traditional focus on reactive repairs.

- **Continued reductions in Central Government funding**

Like many other local authorities, Blackpool Council and Lancashire County Council face a formidable challenge with continued reductions in Central Government funding and growing pressures from across all portfolios. In this context the TAMS is needed more than ever to provide the Council with a long-term view that will clearly define the expectations from the Tramway infrastructure. Such an approach will enable levels of capital investment in different maintenance activities to be quantified and ensure medium and long-term costs are minimised.

- **Addressing long-term threats to the sustainability of the Tramway infrastructure**

Without a long-term strategy, underlying risks and threats to the sustainability of the Tramway will reach a critical level in the next 10-20 year period and will have significant and measurable impacts on economic growth prospects and in particular the tourism industry in Blackpool. Key amongst these are the cumulative effects of underinvestment in routine and preventative maintenance on many parts of the Tramway infrastructure, the likely continued trend of higher construction price inflation and instability and the effects of climate change and its growing uncertainty over the vulnerability of the Tramway with key coastal transport infrastructure.

- **Opportunities for cheaper finance for infrastructure investments**

There are growing opportunities for funding through lower cost financing mechanisms, in particular through the new Municipal Bonds Agency (Local Capital Finance Company) which may provide an alternative route for prudential borrowing to the traditional Public Works Loan Board. A robust asset management strategy is a vital prerequisite to accessing these mechanisms.

- **Demonstrating the economic benefits of infrastructure maintenance**

Investments in capital maintenance very often yield much higher value for money than investments in new transport infrastructure. It is important that the TAMS can provide the evidence base for prioritisation of investments through engagement with regional partners such as through the Lancashire Local Enterprise Partnership (LEP). This link has already been successfully demonstrated in securing the £100m investments in the Tramway in the 2010's using the Governments Webtag protocols.

- **Future Demands on the Tramway**

The operation and maintenance of the Tramway will take into account future demands on the network, including:

- Continued operation of the Heritage Fleet.
- Continued operation of the B-Fleet during the “high” season and major events in Blackpool.
- Restoration of the depot at Rigby Road.
- Increased usage of the LRT Fleet due to the opening of the North Station branch.

### 3. Blackpool Council Corporate Plan

The 2021 Blackpool Town Prospectus sets the Council's clear strategy for a way ahead, to form the foundation for an improved and integrated approach. Its purpose is to articulate a collective vision and agenda for Blackpool, leveraging the full force of its resources to develop the many strengths and address its complex pattern of deprivation in a strategic and cohesive way.



#### OUR HEADLINE OUTCOMES BY 2030

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Create and safeguard at least 10,000 jobs and grow the economy by £1bn through turbocharging tourism, building on our other existing and emerging economic strengths and innovating

---

Tackle the concentration of deprivation in the inner area (the worst in England), raising it out of the bottom decile and creating 3,000 new quality homes

---

Achieve top quartile employment rates for our 16-24 year olds compared to Lancashire authorities through a particular focus on health and wellbeing and work readiness

---

Improve national perception of Blackpool as a 'can do' place with a buzz, attracting graduates, families and business visitors, recognised as an established and credible business investment location, with increased local pride

The Blackpool Town Prospectus confirms the direction of travel for the Town as set out in the Blackpool Council Plan (2019-2024) and, in particular, the two key priorities from the Plan as set out below.

## **Priority One - The economy: Maximising growth and opportunity across Blackpool**

### ***Visitor experience: Tourism and culture***

- *A new conference centre at the Winter Gardens and increase the number of conferences coming to Blackpool*
- *Create a new model of funding to help keep the illuminations and events going*
- *Finalise design and funding, and then deliver, the new Blackpool Museum*
- *£300 million investment into Blackpool Central, to include great visitor attractions including the UK's first flying theatre*

### ***Enterprise, skills and economic inclusion***

- *Help to get hundreds of people back into work*
- *Work with schools to help young people reach their goals*

### ***Infrastructure and regeneration***

- *Complete the tram extension and the new 4\* hotel at Blackpool North station*
- *Make the most of what Blackpool has to offer by helping to grow the energy, aviation and food sectors*
- *Put more money into improving our roads and pavements*
- *Deliver extensions to the Central Business District at Talbot Gateway*

### ***Improving housing***

- *Build more affordable homes, including more homes at Grange Park and Foxhall Village*
- *Enable My Blackpool Home to deliver at least an extra 455 new quality affordable homes for rent*
- *Give greater help to housing developers to allow them to build more affordable houses in our area*

## **Priority two - Communities: Creating stronger communities and increasing resilience**

### ***Health and social care***

- *A new approach to delivering stop smoking services in the town*
- *Plant more trees and make more green, open spaces where we can*
- *Continue to help people to access drug and alcohol services as soon as possible to help bring about more positive outcomes*

### ***Safeguarding***

- *Reduce the numbers of children in foster care by improving the social care system*
- *Work with lots of different services across Blackpool to help keep children and adults safe by giving more support to families that need it*

### ***Young people***

- *Continue to run the Better Start services which improve the life chances for 0-3 year olds.*
- *Improve the experiences of young people in our services by working more closely with other services such as the NHS and schools*
- *Have family hubs in the local neighbourhoods to help people come together, make new friends and support each other*
- *Help schools to bring about changes that will lead to better GCSE results*

### ***Increasing resilience***

- *Continue to support the HeadStart Resilience Revolution which is helping to improve young people's mental health*
- *Improving the coordination of volunteers across the town*
- *More work with private landlords to make sure that rented homes are of a good quality*
- *Bring together charities and local services such as the NHS, police and council to help build better community services in people's local area*

## 4. Blackpool Transport Services Values

BTS have undertaken a major review of their values. Their mission, vision and values are reproduced below.



To connect people, businesses, and communities to a better future – through sustainable public transport



By 2025 Blackpool Transport will be the most reliable and sustainable mode of travel on the Fylde Coast



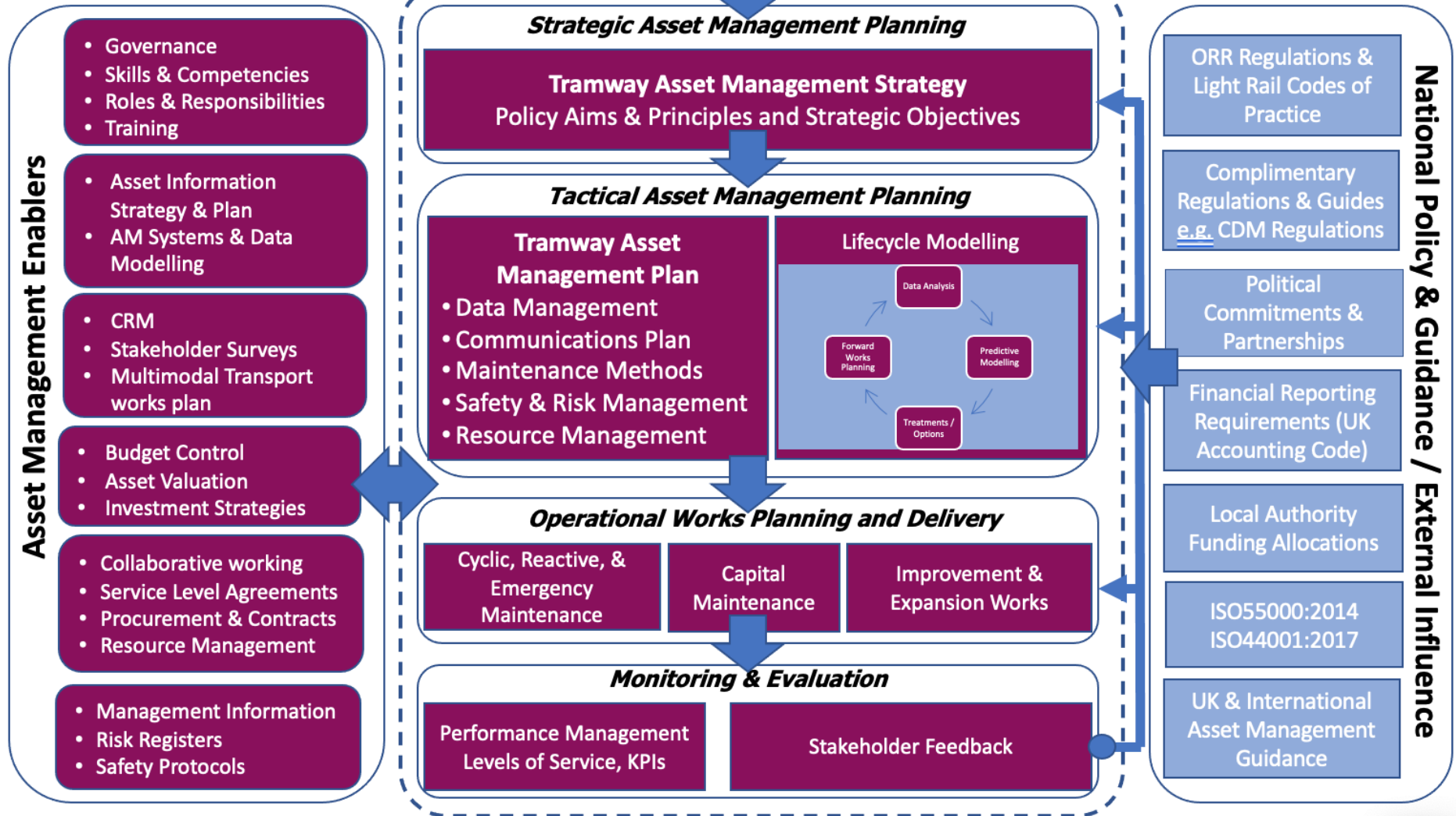


The BTS key messages for 2022 are:

1. The company is recovering at a pace in line with other Bus and Tram Operators.
2. We are supported by Blackpool Borough Council & will be repaying our Covid loans until 2025.
3. We intend to invest in the redevelopment of the South Garage because the engineering team need improvements to their environment. We hope to be successful in our bid for ZEBRA which will enable us to build infrastructure for electric buses and invest in our first batch electric bus.
4. The Tramway extension will be completed in summer 2023. This will provide integrated bus, tram and rail connections from Blackpool North Station.
5. We have an ongoing Organisational Development project which will be implemented by our new OD Director. We will continue to train, develop & encourage our staff to learn new skills.
6. We have taken the feedback from the employee staff survey and recent forums very seriously and we will be communicating with staff on a regular basis to put in place some of the changes needed to make staff feel more engaged.
7. We will continue to implement changes and improvements to the pricing and retailing of products and services to meet customer expectations and increase revenue.
8. The Heritage Trams will continue to operate with our team of volunteers subject to the restoration of the heritage Tram Shed by June 2023.
9. We will continue to improve our approach to digital and IT which will enable us to integrate our products/services and ticketing with other transport modes and attractions in the region.
10. We will consistently engage with customers, employees, stakeholders, and industry partners to ensure BTS stays relevant, pioneering, and entrepreneurial in delivering a transport service which underpins the needs of the region.

**5. Blackpool's Tramway Asset Management Framework**





## Key Components of the Tramway Asset Management Framework

The Tramway Asset Management Framework sets out the overall structured approach adopted in the ongoing long-term management of the Tramway's infrastructure assets. This Framework also demonstrates the alignment of the Council's Tramway service with the objectives and approach set out in the Council's Plan and BTS Values.

The purpose of this Framework is to provide a structured, hierarchical approach to ensure all of the key ingredients are developed and implemented to deliver a professional Tramway service. To anchor our improvement of Asset Management practices, we have developed process and guidance documentation that gives a consistent approach to the key elements of the following management processes:

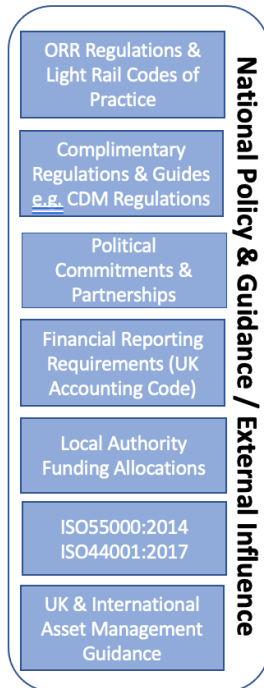
- Blackpool Council Corporate Vision & Plans
- National Policy & Guidance / External Influence and Organisational Context
- Strategic Asset Management Planning
- Tactical Asset Management Planning
- Operational Works Planning & Delivery
- Monitoring & Evaluation
- Asst Management Enablers

## Blackpool Council Corporate Vision and Plans



In terms of developing a strategic approach to managing the Tramway, it is vital that the wider organisational objectives and priorities are considered and form part of the decision-making process for scheme selection, maintenance treatments and service levels for different parts of the network. A highly effective transport service aligns their asset management strategies and plans to support Council goals and priorities, and these are considered further in the Tramway Asset Management Strategy section of the document.

## National Policy & Guidance / External Influence and Organisational Context



This establishes the context for asset management in Blackpool. The context links the service's vision and objectives with the key asset management drivers.

## Strategic Asset Management Planning

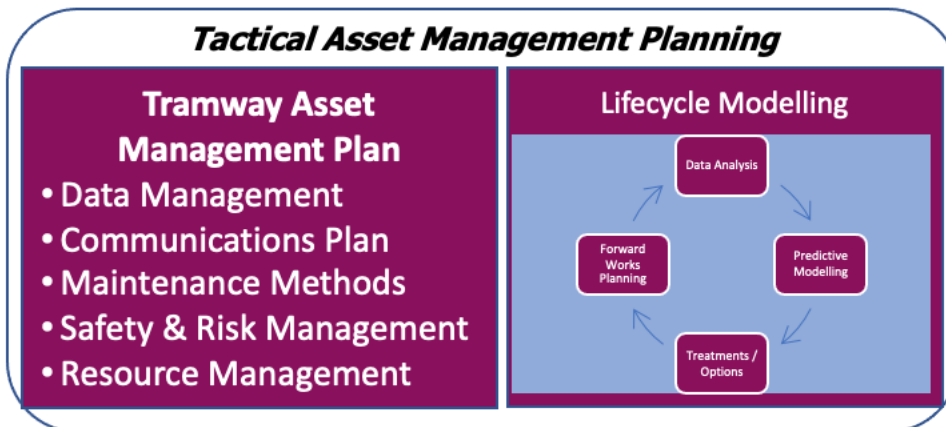


The Tramway Asset Management Strategy is a high-level document that describes the approach to Tramway management and maintenance and demonstrates how an Asset Management approach aligns with the corporate vision and plans and government objectives.

The Policy establishes sound rules and principles against which the Tramway will be managed. The Strategic Objectives translate the principles set out in the Policy and high-level commitments into simple aims which enable a long-term direction of travel for the service to be adopted.

The Tramway Asset Management Strategy will also define Levels of Service related to achievement of our stated objectives. These Levels of Service are the threshold values below which the performance of activities or condition of assets is considered to be unacceptable and need interventions.

## Tactical Asset Management Planning



The planning of the Tramway infrastructure assets links “Policy and Strategy” to “Works Planning and Delivery” by identifying the tactical processes and procedures necessary for implementation. This aspect of the Framework utilises asset data to better understand and predict the behaviour of our various asset groups over their respective lifecycles. This evidence based, whole-of-life approach to asset management enables plans to be better informed by accurate and current asset performance and condition data.

## Operational Works Planning and Delivery



Operational service delivery is where work is done, this stage sees the implementation of the strategic and tactical planning processes, producing tangible and measurable outputs for the Tramway. This is manifest in aspects such as routine maintenance activities, safety and serviceability inspections and surveys and funded capital programmes of work.

## Monitoring & Evaluation



This aspect of the Framework addresses the measurement, analysis and reporting of performance of the Tramway maintenance service. It will deal with a wide range of performance metrics related to the strategic objectives and sets out how we generate

corrective actions to non-conforming or satisfactory performance and drives continuous improvement as a culture.

A key platform for ongoing performance evaluation and reporting to the Council and Key Stakeholders is the publishing of the Annual Performance Report. This report will identify previous performance of the Tramway infrastructure assets, existing condition and performance, and importantly focus on key challenges and potential solutions to improving levels of service for Council residents and Tramway users.

## Asset Management Enablers



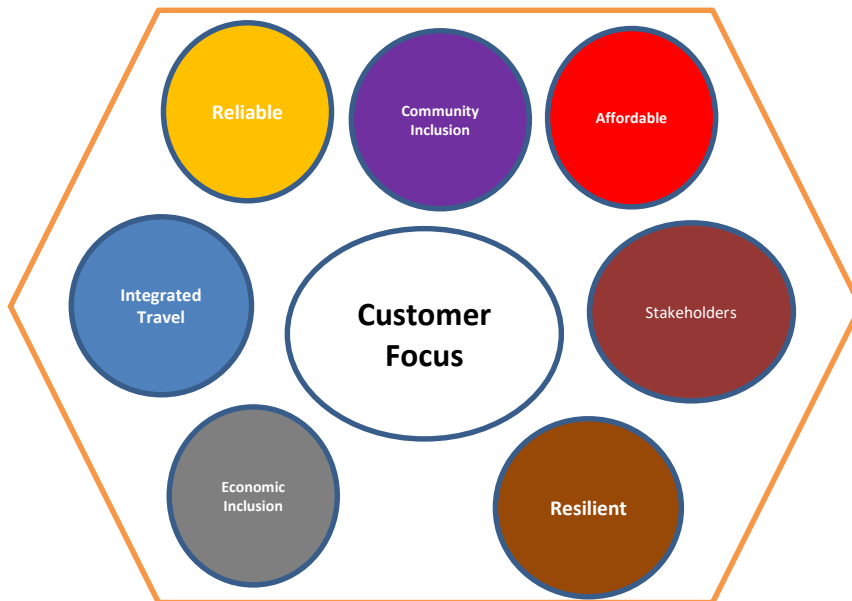
These are the supporting functions and processes undertaken by our maintenance service that 'enable' the key functions of planning and delivery to occur. Activities within this element of the Framework would typically include areas such as resource management, training and competence, budget/cost/financial management, performance management, data and information management, customer and stakeholder engagement, and management of the system controls that govern the overall asset management approach (e.g. Risk Management, non-conformances, etc). These tactical enablers have been incorporated within the Tramway Asset Management Plan.

## 6. Tramway Asset Management Policy

Effective asset management will be at the heart of our approach to managing the Tramway infrastructure and ensuring that it meets the needs and aspirations of present and future generations.

Track Services and Blackpool Transport Services both strive to be recognised as organisations that listen and react accordingly to the views of its residents, businesses, schools, commuters and visitors. This aspiration will be reflected in the Tramways strategic objectives. These objectives will also focus on supporting the priorities within the Blackpool Council Plan and the values of Blackpool Transport Services both of which reflect the Blackpool's vision as set in the Blackpool Town Prospectus.

The Tramway Asset Management Strategy to achieve the Policy aims will remain committed to continually improving the asset management processes. This will enable learning from past performance to guide decisions. As we do this, we will also continue to fulfil our obligations contained in relevant legislation and other requirements relating to the management of Tramway.





Blackpool Council Corporate Objectives & BTS Values	Tramway Policy Aims
<p>Blackpool Council Plan Priority One – The economy: Maximising growth and opportunity across Blackpool</p> <ul style="list-style-type: none"> <li>• <i>Visitor experience: Tourism and culture</i></li> <li>• <i>Enterprise, skills and economic inclusion</i></li> <li>• <i>Infrastructure and regeneration.</i></li> </ul> <p>BTS Values</p> <ul style="list-style-type: none"> <li>• <i>Safety First</i></li> <li>• <i>People and Community Focused</i></li> <li>• <i>Listen and Take Action</i></li> <li>• <i>Trustworthy and Accountable</i></li> <li>• <i>All 1 Team</i></li> </ul>	<ul style="list-style-type: none"> <li>• Implement Tramway maintenance regimes to ensure it is reliable and continues to be perceived as an icon <b>(Reliability)</b></li> <li>• Ensure the Tramway operations and maintenance activities are integrated with other local transport <b>(Integrated)</b></li> <li>• Use local contractors and employ local people <b>(Economic Inclusion)</b></li> </ul>
<p>Blackpool Council Plan Priority Two - Communities: Creating stronger communities and increasing resilience</p> <ul style="list-style-type: none"> <li>• <i>Health and social care</i></li> <li>• <i>Safeguarding</i></li> <li>• <i>Young People</i></li> <li>• <i>Increasing Resilience.</i></li> </ul> <p>BTS Values</p> <ul style="list-style-type: none"> <li>• <i>Safety First</i></li> <li>• <i>People and Community Focused</i></li> <li>• <i>Listen and Take Action</i></li> <li>• <i>Trustworthy and Accountable</i></li> <li>• <i>All 1 Team</i></li> </ul>	<ul style="list-style-type: none"> <li>• First and foremost, to maintain the Tramway so that it is safe to operate and safe to use by its passengers <b>(Safety)</b></li> <li>• Provide a Tramway network that is accessible to people of all ages and abilities <b>(Community Inclusion)</b></li> <li>• We believe the Tramway can live within its means through good asset management practices and will not leave a financial legacy for the next generation <b>(Affordability)</b></li> <li>• Develop a Tramway network that is resilient to environmental impacts <b>(Resilience)</b></li> </ul>
<p>To be recognised as a service that listens and reacts accordingly to the views of its residents, businesses, schools, commuters and visitors and</p>	<ul style="list-style-type: none"> <li>• Ensure that the Tramway is responsive to the views and needs of residents, schools, businesses, commuters and visitors <b>(Customer focus)</b></li> </ul>

earn their trust and build relationships with them.	
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**Tramway Policy Principles**

Below are the principles that will guide our strategy for Tramway Asset Management.

- The first priority will be to minimise risks to the safety of people living, working or travelling in Blackpool. Operational maintenance policies will be kept under regular review to ensure that they reflect evidence from local data and best practice in risk assessment and management.
- Maintenance options that improve the overall resilience and reliability of the Tramway network will be prioritised, particularly in the context of climate change and the growing frequency of extreme weather events.
- Maintenance options that minimise disruption to traffic, residents, businesses, commuters and tourists over the whole life of our Tramway infrastructure will also be considered in conjunction with TS and BTS priorities.
- A 5 year rolling programmes of work will be prepared every year which covers all the Tramway permanent way and fleet infrastructure assets, including the Fleet rolling stock. There will be accountability in developing programmes by regularly reviewing and publicising of the criteria for approving scheme proposals.
- Risks to safety, the economy, the environment and local communities of critical infrastructure will be prioritised and addressed through our programmes.
- Decisions on short and medium-term budgets should not result in unaffordable costs being deferred to future generations.
- Budget forecasts for our infrastructure assets of at least 10 years will be prepared and continually reviewed to enable assessment and management of long-term risks and guide towards minimising costs over the lifecycle of the infrastructure. Investment options will be considered where they are very likely to achieve high value for money or where there is evidence of significant social benefits. However, the Tramway team will also monitor and publish forecast shortfalls in future budgets as this is the only way to develop strategies to address them and to build the business cases needed to access external funding.
- Relations with partners and service providers will be developed to draw on their expertise and research and development in identifying new solutions that will reduce whole life costs and help meet growing demands on the Tramway.
- Appropriate targets will be established to reduce levels of waste, use of raw materials and emissions of carbon incurred by infrastructure maintenance operations.
- All necessary protocols will be established to ensure that asset information and systems are fit for the purposes of supporting the principles listed above and in

doing so have regard to current and emerging standards for asset information management. Suppliers and contractors will be provided with all appropriate information to support the asset management system.

## **7. Tramway Asset Management Strategy**

### **Introduction**

This Section sets out the Council's Tramway Asset Management Strategy and reinforces the commitment to good asset management and best value by balancing cost, quality of service and risk to users of the Tramway. It defines our objectives for the management of the Tramway network and identifies how this is supportive of the wider Council and government aims.

### **Our Assets**

The Tramway network is made up of many different types of assets. Permanent Way assets and managed by Track Services and Fleet Assets are managed by BTS. Each of these asset types has different needs for management and maintenance to ensure that they provide the quality of service that Tramway customers expect. The management and maintenance of these various assets is described within the Blackpool and Fleetwood Tramway Operating and Maintenance Agreement (specifically within Part B), complimented by the Blackpool Council Maintenance Boundary Commentary.

Assets managed by Track Services can be broadly categorised as follows:

- Rail (18.2 Km)
- Platforms and associated furniture
- Sleepers & Ballast
- Points / switches and crossings
- Drainage systems
- Signs
- Fencing
- Overhead Line support poles
- Depot building exteriors and depot yard outside the buildings (excluding boundary fencing)
- Station Structures (e.g. Bispham Station, Little Bispham, buildings north of Thornton Gate, small outhouse just south of Stanley Road)

Assets managed by BTS can be broadly categorised as follows:

- Rolling Stock (18 No. (Bombardier Flexity2), B-Fleet and Heritage Fleet Trams)

- Starr Gate Depot & Rigby Road Tram Depot (including boundary fencing but excluding building exteriors and depot yard outside the buildings)
- Overhead Line (OLE) – cables and support arms
- SCADA (Comms) between platforms
- Signals
- Traction power substations and distribution network
- Tram Detection System (TDS) signalling electrical and electronic systems
- Ticketing vending machines

Although having a relatively new system provides a 'head start' for maintenance requirements both on the Permanent Way and Fleet, maintenance issues are emerging and a strategy to deal with these is required.

### **Asset Value**

There is currently no process for valuation of the Tramway. However, using the cost of the upgrade works completed in 2012 as a basis, the estimated cost as at the end of 2021 of the Tramway is £168.5m, of which £45.2 relates to Track Services assets and £123.3 is related to BTS assets. A breakdown of this valuation estimate is detailed in the Lifecycle Section of the TAMP.

### **Strategic Objective Considerations**

In addition to the organisational context, established in the Asset Management Framework, Strategic Objectives have been determined following consideration of:

- Customer and key stakeholder expectations
- Social Value
- Asset criticality, condition and performance
- Existing and potential future funding and investments
- Emerging technology
- Recognised light rail asset management best practice

In addition, in developing this Tramway Asset Management Strategy (TAMS) and associated documents such as the Tramway Asset Management Plan (TAMP), the Council recognises issues related to the Tramway which differentiate it from other transportation assets. These include:

- Safety of users of the Tramway. This is different from other transportation assets such as highways since, on the Tramway, the public have minimal input into the safe operation of the Tramway.
- The Tramway is a tourist attraction. People visit Blackpool with the sole purpose of traveling on the Heritage Fleet.
- Split management of the assets and the assigned maintenance responsibilities.
- Aggressive environmental conditions due to the Tramway proximity to the coastline. These include a high-water table, corrosive effects of the sea, abrasive effects of the sand and bleaching properties of the sun.

## The Link between Policy and Strategic Objectives

The following table identifies the link between the Tramway Asset Management Policy and Strategy, enabling derivation of the Strategy Objectives.

Tramway Policy	Strategic Consideration	Derived Strategic Objective
<p>Implement a Tramway maintenance regimes to ensure it is reliability and continues to be perceived as an icon <b>(Reliability)</b></p>	<ul style="list-style-type: none"> <li>• Current asset performance and condition</li> <li>• Emerging technology</li> <li>• Recognised best practice asset management</li> <li>• The Tramway is a tourist attraction</li> </ul>	<p><b>Objective 1: To manage and operate an Accessible, Reliable &amp; Sustainable Tramway Network</b></p> <p><b>Objective 2: To optimise investment and funding outcomes for the Tramway Network to mitigate deterioration</b></p>
<p>Ensure the Tramway operations and maintenance activities are integrated with other local transport <b>(Integrated)</b></p>	<ul style="list-style-type: none"> <li>• Customer and key stakeholder expectations</li> <li>• Emerging technology</li> <li>• Recognised best practice asset management</li> <li>• Split ownership of the assets and the assigned maintenance responsibilities</li> </ul>	<p><b>Objective 4: To ensure we inform and communicate with key stakeholders to optimise the Tramway's social and economic value</b></p>
<p>Use local contractors and employ local people <b>(Economic Inclusion)</b></p>	<ul style="list-style-type: none"> <li>• Social Value</li> </ul>	<p><b>Objective 4: To ensure we inform and communicate with key stakeholders to optimise the Tramway's social and economic value</b></p>
<p>First and foremost, to maintain the Tramway so that it is safe to operate and safe to use by its passengers <b>(Safety)</b></p>	<ul style="list-style-type: none"> <li>• Current asset performance and condition</li> <li>• Emerging technology</li> <li>• Recognised best practice asset management</li> <li>• Safety of users of the Tramway</li> </ul>	<p><b>Objective 3: To maintain the Tramway so it continues to be safe to operate and use</b></p>

<p>Provide a Tramway network that is accessible people of all ages and abilities <b>(Community Inclusion)</b></p>	<ul style="list-style-type: none"> <li>• Customer and key stakeholder expectations</li> <li>• The Tramway is a tourist attraction</li> </ul>	<p><b>Objective 1: To manage and operate an Accessible, Reliable &amp; Sustainable Tramway Network</b></p>
<p>We believe the Tramway can live within its means through good asset management practices and will not leave a financial legacy for the next generation <b>(Affordability)</b></p>	<ul style="list-style-type: none"> <li>• Existing and potential future funding and investment profile required for the Council's Tramway infrastructure</li> <li>• Emerging technology</li> <li>• Recognised best practice asset management</li> <li>• Split ownership of the assets and the assigned maintenance responsibilities</li> </ul>	<p><b>Objective 2: To optimise investment and funding outcomes for the Tramway Network to mitigate deterioration</b></p>
<p>Develop a Tramway network that is resilient to environmental impacts <b>(Resilience)</b></p>	<ul style="list-style-type: none"> <li>• Current asset performance and condition</li> <li>• Aggressive environmental conditions</li> </ul>	<p><b>Objective 1: To manage and operate an Accessible, Reliable &amp; Sustainable Tramway Network</b></p> <p><b>Objective 2: To optimise investment and funding outcomes for the Tramway Network to mitigate deterioration</b></p>
<p>Ensure that the Tramway is responsive to the views and needs of residents, schools, businesses, commuters and visitors <b>(Customer focus)</b></p>	<ul style="list-style-type: none"> <li>• Customer and key stakeholder expectations</li> </ul>	<p><b>Objective 4: To ensure we inform and communicate with key stakeholders to optimise the Tramway's social and economic value</b></p>

## **OBJECTIVE 1**

### **To manage and operate an Accessible, Reliable & Sustainable Tramway Network**

By employing good management practices that include the planning, coordinating and operational delivery of our Tramway services, we can provide an accessible, reliable and sustainable Tramway network that contributes to improve residents' lives, business and school and commuter connectivity and visitor experience.

We will address the needs for an accessible, reliable and sustainable network across a range of our maintenance and operational activities, including but not limited to:

- Assessing all ticketing, access and passenger safety facilities to ensure that they meet the needs of all users of the Tramway.
- Ensure that the Tramway operations and maintenance activities are integrated with other local modes of transport.
- Undertaking regular safety and condition inspections to ensure all assets continue to be operable and safe.
- Maintaining a robust schedule of preventative and routine maintenance with an undertaking to provide reactive and emergency maintenance to mitigate any risk to safety and reliability.
- Being aware of predicted environmental conditions and other factors that could disrupt the operation of the Tramway to ensure that the network remains resilient.



We recognise that in order to achieve our strategic objectives and deliver an improving long-term asset management service for our stakeholders, we must consistently strengthen our overall asset management capability within the Tramways service. This capability will be strengthened across a number of different facets, including our own people, processes and systems, and those of our supply chain and partners. Training and competence are a strong aspect of developing our own people and we will strive to ensure we provide our team with the required level of training, guidance and support.



## **OBJECTIVE 2**

### **To optimise investment and funding outcomes for the Tramway Network to mitigate deterioration**

We believe that the Tramway can operate within its means through good asset management practices and will not leave a financial legacy for the next generation. In order to optimise the required investment funding of the Tramway, we are committed to minimising the deterioration of the condition of Tramway assets or, where considered cost effective, to improving the condition of assets.

Building on the significant investment and improvement that Blackpool have made in the Tramway in the previous decade, the Tramway permanent way and fleet services teams will further expand the level of preventive maintenance works where appropriate, in order to ensure the life of critical assets is extended. This preventive approach will be delivered hand-in-hand with ongoing capital renewal and improvement works.

Subject to funding availability, the Tramways teams will ensure that we maximise value for money so that the condition of the Tramway is 'fit for purpose' and is optimised.



### OBJECTIVE 3

#### **To maintain the Tramway so it continues to be safe to operate and use**

It is imperative that the Tramway must be safe. Safety considerations will therefore pervade every aspect of the planning and implementation of design, maintenance and operation of the Tramway. This will manifest itself in many ways including the following:

- Conducting rigorous safety reviews in the design and maintenance planning processes
- Providing safety protocols and materials that are easily accessible when required and easy to understand and implement
- Training all staff in the importance of safety
- Ensuring we undertake safety repairs promptly and 'fixing it first time' where practicable
- Promote safety on the network amongst the travelling public, our workers and supply chain partners



## **OBJECTIVE 4**

### **To ensure we inform and communicate with key stakeholders to optimise the Tramway's social and economic value**

We will provide communication systems that:

- Ensures that the Tramway is responsive to the views and needs of residents, schools, businesses, commuters, visitors and other stakeholders
- Informs Tramway users of the services offered and any disruption to those services and encourage feedback from those users
- Proactively uses all feedback from tramway users and surveys to promote the continuous improvement of the Tramway
- Identifies the need to interact with highways for planned road works so that other modes of transport i.e. links to bus services and national rail services are maintained.

Our objective is to ensure, where practicable, that the Tramway can link and support Blackpool's social networks and communities. This Tramway Asset Management Strategy document aligns with the Road Asset Management Strategy document securing a common purpose and approach to management and maintenance of the respective networks.

We are committed, where possible, to use local contractors and employ local people.



## **8. Managing Safety and Risk on the Tramway**

### **Introduction**

As described in the Tramway Asset Management Policy, safety is the first and foremost consideration in the management and maintenance of the Tramway. Blackpool often seek specialist advice on safety matters, such as the advice given by Duncan Ray in 2020/21.

Safety and Risk management also supports the approach adopted for making decisions through the asset management planning process. Risk management, including safety, is a discipline in itself and covered by ISO 31000 Risk Management.

A risk can be defined as an uncertain event, which, should it occur, will have an effect on the desired performance of an asset or series of assets. It consists of a combination of the likelihood of a perceived threat or opportunity occurring, and the magnitude of its impact on the objectives.

The most commonly understood risks affecting the Tramway service relate to safety. However, there are a wide range of other risks and their identification and evaluation are a crucial part of the asset management process. Risks may include:

- Safety;
- Reputation;
- Asset loss or damage;
- Service reduction or failure;
- Operational;
- Environmental;
- Financial; and
- Contractual.

### **Key Aspects of Safety and Risk Management on the Tramway**

Good asset management is only possible with good risk management. Investment decisions are not effective or sustainable unless the Council knows what risks it is exposed to. To support the process, the Risk Management Maturity Model (RM3), which was developed by the ORR in collaboration with the rail industry, will be used to help achieve excellence in safety management. To ensure the Council suitably address the requirements of effective safety and risk management and align with corporate policy, we will:

- Ensure key or critical Tramway-related safety issues and risks are recorded and managed / mitigated as needed
- Establish clear roles and responsibilities for safety and risk management within the respective Tramways areas
- Take safety and risk management considerations into account during the asset management decision making processes

- Reinforce the importance of effective management of safety and risk through training and provision of opportunities for shared learning
- Monitor our safety and risk management arrangements on a regular basis

In terms of actions and outcomes, for Blackpool, this means:

- Providing safety protocols and materials that are easy to access and easy to understand
- Defining clear ownership (recording/maintaining and reviewing) of Risk Registers
- Monitoring and managing risk within fully populated Safety and Risk Registers
- Specifying escalation criteria
- Undertaking rigorous safety reviews and service improvement reviews related to maintenance practices
- Train all staff
- Promote safety amongst users of the travelling public, our workers and supply chain partners



## Tramway Health & Safety

The approach of Track Services and BTS to health and safety is detailed within their respective Safety Management Systems (SMS) documentation. The TS and BTS SMS documentation and risk registers require review to ensure all aspects of safety on the Tramway network are aligned.

TS requires assurance, not only that BTS's Safety Management System (Trams) adequately controls all safety risks associated with the trams and their operation but also of their ability and competence to work on their infrastructure and do this work safely.

Similarly, BTS requires assurance that Track Services' Safety Management System adequately controls all safety risks associated with the track, overhead wires, and electrical infrastructure areas.

In addition to support the process, the Light Rail Safety Standards Board guidance and standards that are benchmarks for tramways will be followed and met.

The following groups have responsibility for managing and reviewing safety on the Tramway:

- Office of Road and Rail (ORR), and by association, the Rail Accident Investigation Board (RAIB)
- UK Tram and by association the Light Rail Safety Standards Board, Light Rail Executive Group, Transport Heads of Safety, Light Rail Operators Committee (LROC) and Light Rail Engineering Committee (LCREG)
- Blackpool Transportation Board
- Blackpool Council Shareholder Committee
- Tramway Infrastructure Improvement Committee
- Blackpool Transport Relationship meetings
- BTS Shareholder committee meetings
- Blackpool Council Health & Safety meetings
- Tri-Safety Management Group
- TS and BTS Internal Health and Safety Meetings

## **Business Continuity**

Business Continuity Management (BCM) is a management led responsibility designed to minimise risks associated with the impact of any business disruption affecting the Council's services. Planning for continuity will initially enable the recovery of the Council's critical service deliverables with subsequent return to normal operations in a structured manner.

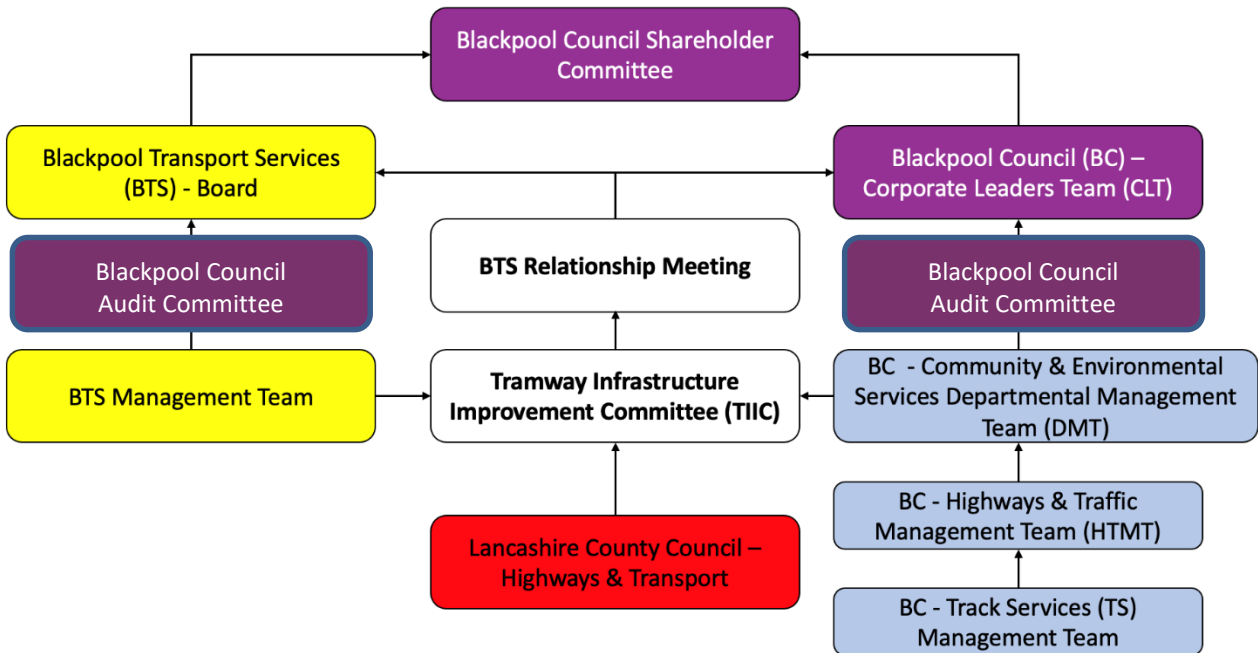
BCM is required under the Civil Contingencies Act (CCA) 2004 and is a legislative requirement for all councils to undertake. One of the outputs of the CCA is a Business Continuity Plan that will help each service within the council continue to deliver critical function and / or resume business following a major disruption. Tramway Track Services and BTS have each developed and published a service level Business Continuity Plan for the Tramway. These plans require review to ensure mutual alignment.

## 9. Leadership & Governance

### 10.1 General

The Tramway and its assets are wholly owned by Blackpool Council and operated under licence by Blackpool Transport Services. The northern section of the permanent way that is located within Wyre is maintained by Blackpool Council on behalf of Lancashire County Council.

The overarching governance of the Tramway is detailed in the following organisation chart.



### 10.2 Lancashire County Council

As described in the Introduction, the Tramway is located within the boundaries of both Blackpool Council and Wyre Council. Responsibility for maintenance of the Tramway has been delegated to Blackpool Council under a formal agreement with Lancashire County Council, the authority responsible for transport within Wyre Council. It is imperative that the joint maintenance responsibility between Blackpool Council and Lancashire County Council is placed on a sound and ongoing financial footing. This will enable the maintenance schedule to be planned to best effect within an agreed plan.

### 10.3 Maintenance Responsibilities

BTS operates and maintains trams under an Operating and Maintenance Agreement for The Blackpool and Fleetwood Tramway drafted in 2012. However, this agreement is unsigned and as such BTS are therefore undertaking work on a goodwill basis. This needs to be rectified. The Operating and Maintenance Agreement should be reviewed, revised as

appropriate and signed in order to be on a firm legal footing and ensure there is no ambiguity of roles and responsibilities.

Notwithstanding the status of the aforementioned Operation and Maintenance Agreement, BTS is responsible for the maintenance of infrastructure sub-systems identified in the Blackpool and Fleetwood Tramway Maintenance Boundary Commentary. These assets include (but are not limited to) the following:

- Rolling Stock
- Starr Gate Depot & Rigby Road Tram Depot (including boundary fencing but excluding building exteriors and depot yard outside the buildings)
- Overhead Line Equipment (OLE) except for the OLE support poles
- Traction power substations and distribution network
- Traction SCADA and ancillary SCADA
- Tram Detection System (TDS) signalling, electrical and electronic systems
- Ticketing vending machines.

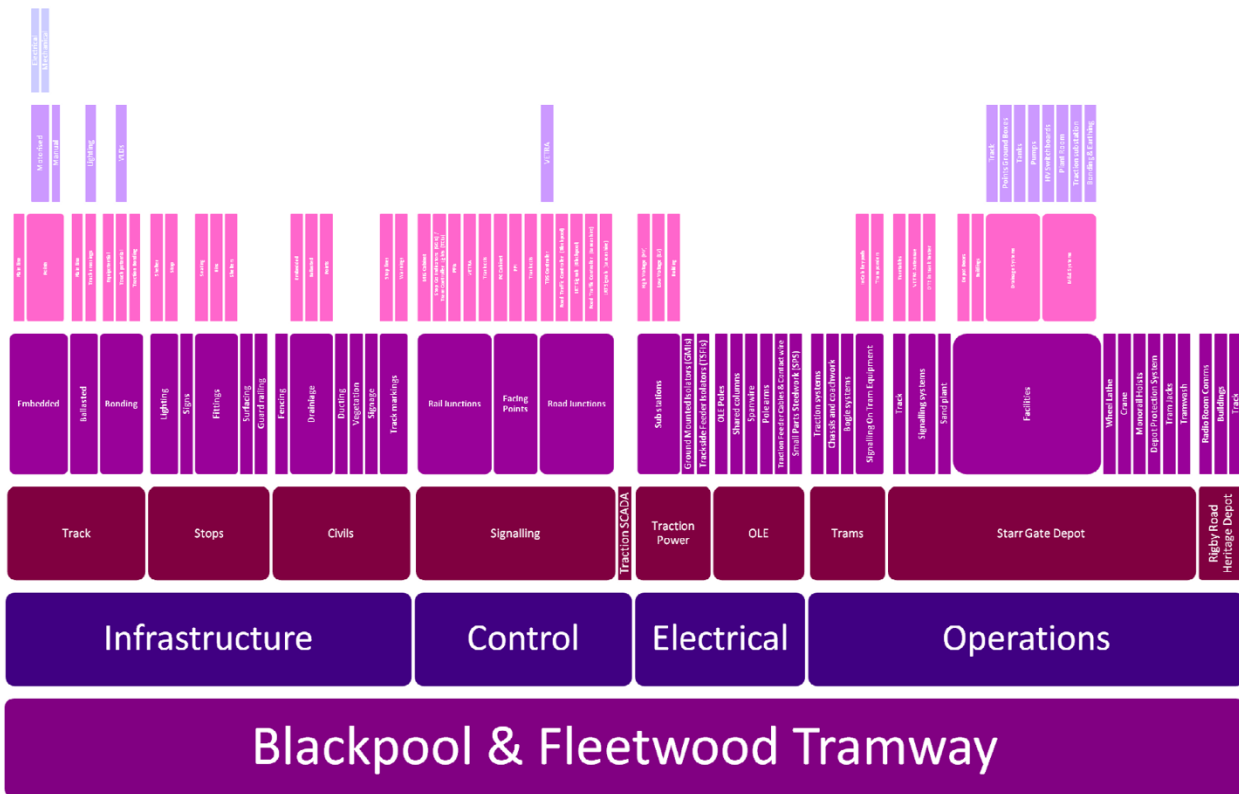
Although the Tramway is operated under license by BTS, aside from what the BTS board might decide, including its council representatives, its operations team is more or less free to operate the system as it sees fit. As such there is no requirement for BTS to report on maintenance work undertaken or report on how the funding is utilised. This license is therefore in need of renewal, potentially in the form of Service Level Agreement (SLA), to ensure it continues to be fit for purpose and managed under defined parameters.

Track Services, has responsibility in its capacity as Infrastructure Manager (IM), for the maintenance of the network assets identified in the Blackpool and Fleetwood Tramway Maintenance Boundary Commentary, including but not limited to:

- Permanent Way - plain line and switches & crossings
- OLE support poles
- Platform surfaces and associated stop furniture
- Fencing and signs.

As identified above, a full description of maintenance responsibilities is defined in the Blackpool and Fleetwood Tramway Maintenance Commentary, published in 2014. The assets covered by this document are summarised in the following extract.





### 10.4 Internal Governance

One of the key aspects of improving the Tramway asset management practices is to ensure political buy-in and the right level of leadership, sponsorship and governance of maintenance and improvement activities.

In order to provide this senior and strategic governance and gain a consistent approach to Tramway management and support our strategic objectives described above, the **Tramway Infrastructure Improvement Committee** (TIIC) has recently been established. The TIIC review and assess effectiveness of our asset management deployment. This Group will continue to operate in accordance with defined Terms of Reference, report to Blackpool Councillors and will sponsor and oversee the effective implementation of the Tramway Asset Management Framework, Strategy and Plan. The membership of the TIIC currently consists of the Director of Community and Environmental Services, the Head of Highways and Traffic Management Services, the Engineering Manager, the Managing Director (BTS), Head of Tramway (BTS), and the Public Transport Manager (LCC). The Committee has allocated maintenance responsibilities for the Tramway in accordance with their Terms of Reference.

- To oversee the management of the maintenance of the tramway system, ensuring all health and safety, risk assessments and adherence to legislative process and procedures are in place
- To develop an appropriate planned maintenance programme to ensure the sustainability of the line
- To agree the commissioning of required and appropriate independent reports and surveys
- To oversee the financial, spend and profile of the maintenance budget
- To develop partnership workings with other tramway operators to share best practice in relation to tramway maintenance and investment
- To aim to identify funding streams to support the investment in the track

The above Terms of Reference will be subject to review as the Board becomes more established and the scope of its responsibilities becomes more focused but also to ensure that they are deliverable by the TIIC members.

## **10.5 External Governance and Support**

All Tramway activities are overseen by the Office of Road and Rail (ORR). ORR is established to protect the interests of rail and road users with the aim of improving the safety, value, and performance of railways and roads, today and in the future. The ORR audits all activities on the Tramway with a particular focus on safety. The ORR also provides policy, regulatory and documents associated with light rail systems in the UK. Equally the service also cooperates and works with the Rail Accident Investigation Board.

BTS is also a member of UKTram. UKTram brings together all organisations with an interest in the future development of light rail in the United Kingdom, ensuring light rail remains a viable, cost-effective and consistently improving transport option. A key objective of UKTram is to present a 'single voice' for the light rail sector in dealing with government and statutory bodies, helping to develop a co-ordinated and structured approach to regulation, procurement and standardisation. UKTram also publishes a number of guidance documents for the operation and maintenance of light rail systems.

Maintenance responsibilities under the tramway renewal project, particularly in relation to the track and overhead lines, were set out in a legal agreement with Central Government. The terms of this Agreement need to be clarified and compared with other Tramway governance documents to ensure they comply with this Central Government Agreement.

## 10. Funding

### Background

Expenditure on the Tramway will be in competition with other Council priorities including services for the elderly and children and young people. It can therefore be difficult to make the case for the Tramway maintenance budget, more so its expansion. A plan that makes the case will be vital in presenting a robust case for maintenance spend. Such a plan would be all the stronger for ongoing benefit cost analysis work that identifies monetised benefits. Cutting Tramway expenditure might appear to be a useful short-term saving, but the loss of economic benefit due to the system's decline would make this a short-sighted decision that a mature organisation should not make.

It's essential to get the tramway maintenance regime right - getting it wrong could have significant economic consequences, particularly as it seems likely that environmental concerns and the need for modal shift to electric mass transit will become more important over the coming decade. At present the system's coastal alignment makes it relatively ill-equipped to deal with a shift in commuting behaviour. The extension to North Station is a first step in modernising the Tramway to pick up this role.

The system that has been put in place in the past decade is technologically superior to that which it replaced, being to modern best practice light rail network. Overall, this is a good thing making the system more efficient. However, it has required maintenance systems and programmes to be reviewed. As ever regular preventative maintenance coupled with a forward-looking strategy that identifies and builds programmed repairs into a long-term maintenance profile, will offer the best value for money and ensure that the tramway system is sustainable indefinitely.

To respond adequately to this agenda, a well-structured asset management strategy and plan, implemented by a well-resourced maintenance team is needed, supported by efficient procurement procedures when external input is needed. There needs to be particular attention to the team's skill base as those skills required are not easy to acquire or replace. As a consequence, a training and apprenticeship programme is needed.

The service level needs to be determined on the basis of a TAMS that includes all options, informed by an evidence based cost benefit analysis. When maintenance decisions have been taken, an annual tramway maintenance budget can be determined and the split with LCC determined.

After the effort and expenditure that was dedicated to the Tramway Renewal Scheme, a managed decline approach to the tramway's maintenance regime, may seem unthinkable. However, without the resources for alternatives, such an approach may have to be adopted. This would fly in the face of national policy to encourage sustainable transport, including new and extended light rail systems. However, recent Government pronouncements indicate that public transport investment must be funded from devolution

arrangements, rather than the Local Major Schemes monies. Unfortunately, devolution appears to be dedicated to road building, cutting off light rail from a potential funding source. Blackpool Council is a member of the Transport for the North organisation. However, this is not currently set up to deal with light rail schemes, which would be left to constituent organisations.

With international climate change issues and local congestion and air quality concerns to deal with, it might be thought that arrangements to support electric mass transit systems would be in place, but this is not the case. With the employment growth proposed for the town centre, there is a danger of gridlock if further modal shift to car commuting occurs. Given the issues it has, including air quality concerns, it could be argued that Blackpool needs more, not less, sustainable public transport.

In common with much Government discretionary capital funding, the revenue funded maintenance consequences of the Tramway renewal are left to stretched local government budgets to accommodate. Vague national statements on the need for sustainable transport do not make the resources to maintain current systems available.

## **Funding of Maintenance Works - General**

Asset performance requirements are used to determine the funding requirements. However, in reality, the implementation of this Strategy will be constrained by available funding. The development and implementation of Strategy is therefore an iterative process based on historical and predicted funding for both routine and capital works.

## **Lancashire County Council Contributions**

Lancashire County Council (LCC) contribute to the funding of routine permanent way works on the Tramway on the basis of a formal agreement that has been in place since 2013. The agreement allocates funds based on quarterly expenditure split between Blackpool Council and LCC on the basis of the length of the permanent way located within each authority. This split currently stands as 63% for BC and 37% for LCC.

The 2013 agreement needs review and updating, preferably to cover a long-term period, in order to ensure the continued effective funding of the Tramway.

## **Permanent Way Routine Maintenance Works**

Routine works are financed through Blackpool's Highways and Transportation revenue stream and contributions from LCC as detailed above. This has historically been in the region of £1m per annum. A breakdown of historical revenue funding is shown in the Lifecycle Plans. This level of funding has been adequate for routine preventative maintenance works but it is not anticipated that the value will increase in the foreseeable future.

Specialist IT software and hardware requirements, such as the licensing of the EBF system to assist with inspections and asset management, is also funded through the above-mentioned revenue stream. The replacement of non-specialist IT hardware and software is funded by the Council's corporate IT department.

### **Track Services Capital Maintenance, Replacement and Improvement Works**

Through the 2000's, Blackpool Council worked jointly with LCC to prepare an ambitious Fylde Coast Light Rail scheme that would have extended the system to Lytham and possibly re-use the moth-balled Poulton-Fleetwood railway. Options to extend the system to interchange with heavy rail services at Blackpool North railway station were also appraised, providing reference for the current Tramway Extension Scheme. Following initial rejection, Government approval for a modern tram scheme was granted in February 2008, the scheme being completed and reopened in 2012 at a cost of £100m but initially with an extension to the existing network. Latterly, an extension to North Station has been approved. Funding for these works was provided through central government grants.

For future capital works, various funding streams for Track Services are available as follows:

- Local Transport Plan funding
- Prudential Loan
- Environment Agency funding for flood prevention works
- Council Borrowing (through the Prudential Fund), typically for 'Invest to Save' works
- Council capital bids for unsupported borrowing
- Private Developer's funding
- Other sources (to be identified)

The small Local Transport Plan (LTP) programme has traditionally provided maintenance money. There is no guarantee this programme will continue beyond 2021. The LTP programme can therefore not be counted upon.

Essential maintenance works have recently been completed at a cost of approximately £1.1m which was made up of £200k in routine maintenance works funded from the revenue budget and £900k in capital works funded from Prudential borrowing. The Prudential loan is planned to be repaid over a 5-year period. It is intended that the planned maintenance programme will be undertaken on a rolling basis every five years.

### **BTS Routine and Capital Works**

BTS costs associated with both routine maintenance works are funded through ticket sales. BTS also receive £312k per annum from the Council to cover the costs of maintenance of the OLE. Notwithstanding the latter, since funds for both routine and capital works are primarily dependent on Tramway ticket sales, such funding cannot be guaranteed.

The above-mentioned Permanent Way capital works completed in 2012 included a new depot at Starr Gate and 16 No. Bombardier Flexity2 trams, overhead line equipment and safety systems. A further 2 such trams to enable frequencies on the sea front network to be maintained when the extension is in operation, have now been delivered.

The iconic Heritage Fleet is subject to unique funding arrangements. The maintenance work is undertaken by volunteers who also raise the funds necessary for the maintenance from the public and from private donors.

## 11. Levels of Service

It is important to monitor the performance towards asset management strategic objectives and network performance in order to assess whether the strategy in place is having the anticipated effect on the Tramway network. Measurement of effectiveness and efficiency therefore uses a series of metrics at the strategic (Levels of Service), tactical (Management KPIs) and operational level.

Levels of Service (LoS) are defined as a composite indicator that reflects the quality of services provided by the asset for the benefit of customers. Levels of Service do not comprise the performance measures themselves. Rather, Levels of Service are set to enable an easy review of alignment of performance with the strategic objectives. The LoS may therefore be said to reflect the way the service is delivered and perceived by customers.

Service quality is related to measures of performance which may either be based on asset condition evaluation, customer aspirations or corporate aspirations.

- **Condition assessment** provides a measure of the state of preservation of the physical integrity of the asset and is determined by objective engineering survey or by user perception.
- **Customer aspirations** is a non-condition measure of how the service is perceived and delivered by the asset in terms of its use in providing a service to customers by enabling them to travel. This can generally be expressed in terms of such factors as safety, availability, accessibility, integration, aesthetics, etc. which reflect the social, economic and environmental goals of the wider community.
- **Corporate aspiration** is a none condition-based measure on how the service is to be delivered as a whole. These could include overall safety issues such as KSI and claims, carbon footprint, service delivery mechanisms, etc.

Levels of Service are developed in accordance with local needs, priorities and affordability which are consistent with regulatory requirements and good practice. the aim being to ensure safety of all aspects of the Tramway and provide a serviceable level of "state of good repair" for all Tramway assets. Based on the above principles.

The following Levels of Service have therefore been derived to align with the Strategic Objectives.

Tramway Strategic Objective	Level of Service
<b>Objective 1:</b> To manage and operate an Accessible, Reliable & Sustainable Tramway Network	High level of satisfaction from people with disabilities
	Reduce the number of disruptions to the scheduled service
	Reduce the number of unplanned (reactive and emergency) maintenance works
<b>Objective 2:</b> To optimise investment and funding outcomes for the Tramway Network to mitigate deterioration	Use asset condition analysis to plan and deliver works programmes in line with the TAMS.
<b>Objective 3:</b> To maintain the Tramway so it continues to be safe to operate and use	Reduce legal exposure and liability for insurance claims.
	Reduce the fatalities, serious injuries and light injuries on the Tramway.
	Repair or make safe Tramway defects which have a high potential of causing damage to Tramway operators and users within prescribed timescales.
<b>Objective 4:</b> To ensure we inform and communicate with key stakeholders to optimise the Tramway's social and economic value	Attain a high level of satisfaction with accurate, timely information.
	Provide feedback mechanisms to/from key stakeholders.

The quantified metrics and targets associated with these Levels of Service and defined at a tactical level and as such are detailed within the TAMP.



## **12. Outline of the Tramway Asset Management Plan**

The Tramway Asset Management Strategy is supported by a Tramway Asset Management Plan (TAMP) which forms Part 2 of this document. The TAMP identifies the tactical approach to maintenance of the Tramway assets, providing a clear link to operational processes and procedures and identifying actions necessary for effective and efficient asset management.

The TAMP will include details on the following:

- Data Management
- Communications
- Performance Management
- Maintenance Methods
- Safety and Risk Management
- Resource Management
- Lifecycle Planning and Forward Works Planning

### **Data Management**

Understanding our network is crucial to delivery of the Tramway Asset Management Strategy and this begins with knowledge of the inventory and condition of the core assets. The TAMP sets out the aims and objectives of managing the data. Key issues covered by the TAMP include:

- Aims and Objectives
- Core Asset Data Description – Inventory and Condition
- Inspections
- 2012 and other Upgrades / Extensions
- Data Storage and Reporting
- Data Flow
- Asset Performance and Data Review

### **Communications**

In adopting an asset management approach, we will ensure that the network meets the needs and expectations of stakeholders as much as possible within the constraints we face. It is, therefore, fundamental that we listen to and communicate with all stakeholders on a regular basis using the most appropriate media. Key issues covered by the TAMP include:

- Aims and Objectives
- Stakeholders
- Historic Customer Surveys and Feedback
- Messaging
- Communication Channels
- Methods of obtaining Feedback
- Tramway Customer Satisfaction Scoring and Evaluation

## **Performance Management**

Performance will be monitored against this TAMS, using Levels of Service and Key Performance Indicators, to ascertain where progress is being made and to identify areas that need greater focus. Regular formal reviews ensure that Tramway assets are managed in the most effective and efficient manner. However, if there are significant changes in national policy or guidance that affects management of the Tramway, the review will be brought forward.

Defining Levels of Service (LoS) and Key Performance Indicators (KPIs) provide a way of measuring the standard of service that is provided. When setting LoS metrics, KPI metrics and associated targets, it is also important to consider local views and therefore, the findings from customer communications will be considered.

Key issues covered by the TAMP include:

- Aims and Objectives of Performance Management
- Performance Management Hierarchy & Metrics
- ORR Audits
- Performance reviews
- Continuous Improvement & Change Management
- Implementation

## **Maintenance Methods**

There are many operational activities required to maintain the Tramway. These activities are defined in TAMP and detailed in operational processes and procedures. The TAMP will therefore describe these activities, including details of materials, under the following general headings;

- Permanent Way – Routine (Cyclic, Reactive and Emergency) Maintenance
- Permanent Way - Planned Capital Maintenance
- Fleet - Routine Maintenance
- Fleet - Planned Capital Maintenance
- Network Improvements
- Sustainability
- Tram Track Handbook
- Track Services Work Activity Plans

## **Safety and Risk Management**

An introduction to safety and risk management is described in Section 9 of this TAMS. The TAMP will include details of the issues:

- Safety Management Systems
- Safety At Work
- Historical Safety Incidents
- Other Tramway Risks
- Rail Accident Investigation Branch (RAIB) compliance
- Tramway Safety Management Group

## **Resource Management**

Tramway management and maintenance resource requirements are identified in an annual review of activities. Senior managers within Blackpool map available resources to planned activities to determine any gaps. The gap analysis will be used as an input to determine options for resourcing the activities. This applies across all asset management activities, could be extensive and will require prioritisation and programme planning of many projects to close these gaps.

In determining options for resourcing the activities, consideration is given to both internal and external resources. For human resources, options available will be affected by corporate policy and strategic plans on human resources, contracting-out or outsourcing and existing contractual arrangements. For non-human resources, availability of resources should include consideration of procurement options (e.g. lease, hire, purchase or otherwise acquire). Both human and other resourcing needs can be influenced by the nature and duration of the activities (e.g. one-off versus on-going).

Any plant (tools, facilities or equipment) and materials that are required for Tramway activities should be defined and managed as assets, at a level of detail appropriate to their function and purpose.

- Aims and Objectives of Resource Management
- Resource Requirements
- Existing Resources
- Procurement and External Suppliers
- Competency Assessment

## **Lifecycle Planning and Forward Works Plans**

The development of whole-of-life / lifecycle methodology will ultimately enable Blackpool to better manage Tramway maintenance activities in order to deliver sustainable, effective and efficient services and maintenance works. This involves understanding asset value, asset condition and deterioration rates and the required Levels of Service.

Lifecycle Plans will therefore include:

- Asset inventory
- Asset condition (current and historic)
- Asset valuation
- Historical investment (both revenue and capital)
- Asset performance requirements
- Treatment (maintenance methods and materials) strategy
- Programme-of-works options for core Tramway assets
- Funding constraints
- Prioritisation principles
- Investment analysis methods, inputs and outputs

Lifecycle Plans enable evidence based and risk based forward programmes of work, including asset replacement and improvement strategies to be developed and updated.

Forward Works Plans themselves are not part of the TAMP. These are developed at an operational based on the criteria in the TAMS and TAMP and outputs from the lifecycle plans.