

Depot Capability Statement

Mott MacDonald has a wealth of experience in the practical, technical and operational aspects of light rail maintenance and depot design. Key components of our services include:

- depot layout specification and design
- depot asset management and evaluations
- maintenance strategies and specifications
- maintenance methodology
- asset condition assessments

Our previous experience extends to the following projects:

Manchester Metrolink

Responsible for depot concept design, public consultation, TWA application and subsequent successful public inquiry for the proposed new depot at Elsinore Road, Old Trafford, for Manchester phase 3.

Mott MacDonald on behalf of GMPTE also developed a concept design, and subsequently the Form A (Approval in Principle) design, for the proposed extension to the Metrolink Queens Road depot, which is required to provide adequate stabling and maintenance facilities for new rolling stock.

In undertaking this role, close liaison with Stagecoach Metrolink, as the operator / maintainer of the Metrolink system and Stagecoach Major Projects as the proposed contractor for the works was necessary so that the scope of the project addressed their requirements for minimising disruption to ongoing operations during the works and providing adequate facilities for the existing and new vehicles whilst fitting the GMPTE's overall project budget and programme.

The project required a full interdisciplinary team which, in addition to the design disciplines of permanent way, civil and structural, overhead line and power transmission (substation design) and mechanical and electrical services incorporated our extensive knowledge of depot operations and vehicle maintenance practices. The scope of work further included the management of on site surveys e.g. topographical survey and geotechnical investigation within an operational depot environment.

The Form A design was delivered to programme, budget and required quality which enabled both GMPTE and Stagecoach Metrolink to accept the design and move to tender of the works without delay.

NET Phase Two (Nottingham Express Transit)

Mott MacDonald has been commissioned (2007-09) to undertake the Requirement Definition and Advance Design of Phase Two to NET. As part of the 17km expansion programme, an additional 22 vehicles are to be procured and our designs to facilitate the expansion of the existing maintenance facilities to accommodate a total fleet of 37 vehicles.

Mott MacDonald are carrying out all of the engineering design to define the depot; track layout, building design, traction power, signalling, communication and control systems, civil

structures and roads. As part of the work MM must also deliver an implementation strategy that demonstrates that the facilities can be expanded without significant disruption to the current operations.

Mott MacDonald are also undertaking the design of the extension to the depot workshop buildings, control room, offices, new storage facilities, for structural and architectural aspect, design for the provision of new plant and equipment including high level access arrangements, extension to the stabling sidings, modifications to the existing Substation building and design for a new substation and their associated electrical capacities, and provision of Operational Cost modelling for both Maintenance and Operational activities. The commission also includes supporting all necessary consents and approvals associated with designs.

Merseytram

Mott MacDonald carried out a study to outline in conceptual terms the range of facilities and equipment required for the Line 1 depot on the proposed Merseyside LRT system, and possible sites where it might be located, with preliminary provisional space and equipment requirements.

In addition, we were also responsible for carrying out a review of three proposed stabling facilities for Line 2 at Prescott, including recommendations based upon the suitability of each site with respect to operational and maintenance requirements.

Midland Metro –Centro

Our role covers technical advice to the client with respect to rolling stock and depots, this has included carrying out site assessments and initial depot designs for the expansion of the Midland Metro depot. Further work has involved assessing other potential depot sites with regards to feasibility, capacity and operational efficiency for future extensions.

Mott MacDonald have also undertaken an Operational and Maintainability review of a proposed workshop and siding extension at the existing Wednesbury depot site and subsequent recommendations for improvements in workshop layouts, Plant, Equipment and Facilities, and track Layout to facilitate improved operational capabilities for utilisation of a proposed expanded fleet.

Edinburgh

We have developed concept depot layouts for Parliamentary submission of Edinburgh Tram line 1.

Blackpool Transport – BTC/BCC

Mott MacDonald is undertaking a full concept level multi-disciplinary design for the provision of a new maintenance, servicing and stabling facility located at Starr Gate on the sea front at Blackpool and its associated environmental conditions. The scope of the commission includes: building structures, highways, drainage, M&E building services, external lighting, OLE, feeder and substation designs, and supporting the procurement of depot plant and equipment such as Wheel Lathe, Washing and Sanding Plant, Lifting Equipment (Mobile and Travelling), Turntables and High-level access platforms. The commission also includes supporting all necessary consents and approvals associated with

designs. The concept design has taken account of possible future expansions and the possible relocation of their heritage tram fleet in the designs which may include a museum facility. Prior to the above concept design, Mott MacDonald undertook both a depot requirements exercise, and a depot layout and feasibility optioneering exercise with the client Blackpool Borough Council and their Operator to determine the optimum site arrangement for their requirements.

Allied to this depot design Mott MacDonald will provide in association with Blackpool Borough Council depot design advice to members of a European consortium setup to share knowledge and experience with Dutch, Belgium and French railway/tramway organisations to facilitate improved depot designs under the INTEREG 4B Programme.

Taiwan TTY MRT Airport System

We have provided technical support in the design of the new depots at Chin Pu and Lu Chu. Additionally, we have provided technical advice on the proposed workshop layout and maintenance equipment.

Crossriver Tram

We have been involved in assessing potential depot sites with regards to feasibility, capacity and their operational efficiency and producing initial depot layout designs including the provision of Operational Cost modelling for both Maintenance and Operational activities.