

**GREATER MANCHESTER INTEGRATED TRANSPORT AUTHORITY****REPORT FOR INFORMATION**

**COMMITTEE:** Capital Projects  
**DATE:** 6th November 2009  
**SUBJECT:** Metrolink Update  
**REPORT OF:** Metrolink Director, GMPTE

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**PURPOSE OF REPORT**

To provide Members with an update on the Metrolink Projects.

**RECOMMENDATIONS**

Members are asked to note the contents of the report

**BACKGROUND DOCUMENTS**

Report to Policy Committee on 5th September 2008.

Report on Metrolink Service Enhancement Projects to Development & Operations Committee on 24th October 2008.

Report on City Centre Track Update to Development and Operations Committee on 28th November 2008.

Report on City Centre Track and associated Projects to Development and Operations Committee on 27th February 2009.

Report on City Centre Works to Development and Operations Committee on 1<sup>st</sup> May 2009.

Report on Service Improvement Projects to Development and Operations Committee on 1<sup>st</sup> May 2009.

Report on Metrolink SEP and SIP programmes to Capital Projects on 3<sup>rd</sup> July 2009

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## **1. Introduction**

- 1.1. The purpose of this report is to provide an update on the progress made to date on Metrolink Projects.

## **2. City Centre Track Renewals**

### **2.1. Background**

- 2.1.1. The contract to execute the replacement of the City Centre Track was placed with Stagecoach. Stage 1 of the project commenced on 27th September 2008 with works taking place on the section of track from Piccadilly Undercroft through Piccadilly Place and along Aytoun Street to a point just before Portland Street. This section was completed on time and on budget, and re-opened to customers on 21st November 2008.

### **2.2. Progress Update**

- 2.2.1. The next stages of works provide for the replacement of the track between Victoria Station and the bottom of GMex ramp.
- 2.2.2. These works started in April 2009. The infrastructure is being renewed one track at a time, whilst retaining use of the adjacent track for operating shuttle services into the city centre and for access to maintenance facilities at night at Queens Road Depot.
- 2.2.3. After a detailed consultation process between GMPTE and Manchester City Council, the surface finish was agreed and is a combination of natural stone, concrete blocks and exposed aggregate concrete with stone edging. The surface finishes will deliver a much higher quality of finish than is currently in place and will compliment the urban architecture within the city.
- 2.2.4. At the Shudehill Tram Stop, track subsidence has occurred. After detailed investigation work and agreement on a way forward, this work was incorporated in to the track renewal programme.
- 2.2.5. The City Centre Track renewal works are in line with the programme and will be completed by the end of October 2009 allowing trams to return to normal service on Monday 2<sup>nd</sup> November 2009.

## **3. Replacement of Altrincham Line Overhead Line**

- 3.1. The overhead line between Altrincham and Old Trafford was replaced during the August Blockade and remedial work was also undertaken to the supporting structures. Stagecoach were contracted to undertake these works.

- 3.2. The blockade was also used to undertake the following works, all of which would have otherwise been disruptive to the operation of the Metrolink system:-
- Connection of the Altrincham and South Manchester Lines;
  - Connection of the Altrincham line with the Trafford depot;
  - Re-modelling of Cornbrook junction to allow the Media City service to be run.
- 3.3 The majority of the works were delivered in line with the programme and successfully handed back to the Operator in August.
- 3.4 Stagecoach experienced delays in the fabrication of materials that delayed the start of the testing but they were confident this would not delay the planned opening of 1 September 2009.
- 3.5 During the final stages of testing a safety critical electrical problem was identified. The location and resolution of the problem was time consuming and regrettably this resulted in the opening being moved to 2 September.
- 3.6 At midday on 2 September, after approximately 60 service trams had passed through the area, a dewirement (mechanical disconnection of the contact wire) occurred. The damage relating to this was extended as the driver followed normal operating procedures and coasted to the nearest tramstop.
- 3.7 Following the incident, replacement bus services were introduced to cover the reduced service that was brought back in stages to minimise the disruption to passengers. Full operational service was resumed on the evening of 6 September 2009.

#### **4. Altrincham Line & City Centre Stop Improvements**

- 4.1. This programme has been amended to upgrade and enhance passenger facilities at the tram stops in the City Centre and along the Altrincham line taking advantage, where appropriate, of the blockade of the Altrincham line during August 2009.
- 4.2. The work packages have been procured and delivered as set out below.

#### **5. Piccadilly Gardens Stop**

- 5.1. The work to be undertaken at Piccadilly Gardens stop includes the widening of the inbound platform by 1.9 meters associated re-modelling of the tracks and overhead lines, provision of new stop equipment including a new iconic shelter and the new ticket vending machines.
- 5.2. This work is on schedule to be completed in time to allow re-opening on 2nd November 2009.

## **6. Altrincham and Navigation Road works**

- 6.1. Station enhancements have been undertaken including platform remodelling, platform gauging, drainage, platform re-surfacing, replacement and repositioning of platform furniture and equipment, improvements to passenger access including renovation of ramps and steps, ground investigation and other survey work, signage, painting and cleaning.
- 6.2. These works have been completed and encompass areas of the station which are part of Northern Rail's operation and are a pre-cursor to the broader project to re-develop the Altrincham Interchange.

## **7. Navigation Road Car Park**

- 7.1. Car park extension which includes demolition, drainage, service relocations, signage, CCTV, lighting, landscaping and surfacing of car park. The carparking capacity will increase from 24 to 82 spaces. This work will be completed in November 2009.

## **8. Timperley, Brooklands, Sale, Dane Road, Stretford, Trafford Bar and G-MEX Stops**

- 8.1. Renovation of the Metrolink stops including demolition, removal of a footbridge, replacement and repositioning of platform furniture and equipment, construction of ramps and steps, refurbishment of platform buildings, canopies and other structures, painting, cleaning and signage.
- 8.2. The majority of this work was successfully completed during the August Blockade with some non-critical activities such as extra shelters, panelling and new walkways, will be completed in November.

## **9. St. Peters Square**

- 9.1. The work undertaken at St Peters Square increased the height of part of the platform to enable double trams to access the stop and will also provide new steps and ramps and alterations to the adjoining highway. In addition the new Metrolink visual identity has been applied to the stop, including new stop furniture and equipment.
- 9.2. The works to the inbound platform were complete by the end of the August blockade. Works to the outbound platform will coincide with the completion of the track renewals programme.

## **10. Upgrades of Lifts on Altrincham Line**

- 10.1. Lift refurbishment, installation, and replacement programme on the Altrincham line is due to commence in Spring 2010.

## **11. Old Trafford Works**

- 11.1. The work at Old Trafford includes the relocation of the inbound stop, the removal of the subway and installation of an at-grade crossing and new queuing facilities. The majority of the work was undertaken during the August blockade with the remaining work to be completed in November.

## **12. Light Rail Vehicles (LRVs)**

- 12.1. 40 new trams have been ordered from a consortium of Bombardier and Vossloh Kiepe which will be deployed to reinforce existing services and to serve the Phase 3A lines.
- 12.2. Four trams have been delivered of which the first tram has completed its 1,000 mile endurance test and has been accepted by GMPTC. Testing is continuing on the trams with all required tests being undertaken for Network Rail approval. Driver Training is planned to commence in early November. It is planned that the new trams will start to be introduced across the Metrolink network during December 2009.

## **13. LRV Upgrades**

- 13.1. A programme of upgrades to the current fleet of 32 LRVs is being undertaken by Stagecoach. These predominantly deal with a number of issues related to compliance with legislation (introduced since the trams were brought into service) and reliability e.g. rear facing CCTV cameras, compressor upgrades, speed probe upgrades, etc.
- 13.2. The tram upgrades have been developed technically and introduced on five of the current fleet.
- 13.3. Two further rolling stock projects have been initiated within the Service Improvement Programme (SIP); a comprehensive mid-life refurbishment which include bringing the trams in line with the new Metrolink visual identity both internally and externally, and a further programme of reliability improvements.

## **14. Queens Road Depot**

- 14.1. The existing maintenance centre at Queens Road is being expanded and adapted to accommodate the expansion of the fleet and the introduction of the new trams, e.g. more stabling, storage and maintenance facilities.
- 14.2. This work will be completed by December 2009.

## **15. Ticket Vending Machines**

- 15.1. New ticket vending machines (TVM) have been purchased from Scheidt & Bachmann for the expanded (phases 1, 2 and 3A) Metrolink network. The machines will issue a “railway type” ticket in place of the current paper type, they will also accept debit and credit cards which will reduce the need for cash.
- 15.2. Advance infrastructure works have taken place on the Altrincham line during the blockade and the city centre stops.
- 15.3. The new TVMs will be the first introduced on St Peters Square and Piccadilly Gardens Stops, to all other city centre stops during December 2009 and to all other Phase1/2 stops by Spring 2010.

## **16. Traction Power System**

- 16.1. Studies have been undertaken and correlated with practical experience to ascertain the impact of introducing increased traction power demands on the existing network once additional services (and additional double units) are added to the current pattern. These have identified the need to provide an additional two substations along the Bury line at Bowker Vale and Whitefield. This project has been initiated within the SIP programme.

## **17. Passenger Information Displays**

- 17.1. As part of the upgrade of the city centre stops the existing Passenger Information Displays have been removed. These displays were unreliable and providing incorrect information to the Metrolink passengers.
- 17.2. New visual displays that show real time passenger information will be connected to the new Tram Operating System (TOS). The displays will be in accordance with current regulations, will provide accurate up to date information and will be rolled out to all Metrolink stops.
- 17.3. The contract to supply the displays has been awarded to MPact Thales. The roll out program which is conditional on the TOS program is currently being developed with the contractor and will be available in early 2010. It is planned that the new displays will start to be introduced on the city stops during Summer 2010.

## **18. Shelters**

- 18.1. New tramstop shelters have been installed at St Peters Square and Piccadilly Gardens stops as part of the ongoing city centre track renewals works. Such shelters will be ultimately extended across the 3a network. The shelters are in line with earlier presentations made to Members.

## **19. Media City**

## 19.1. General

A Grant Funding Agreement (GFA) with the Council of the City of Salford (SCC) to extend Metrolink into the Media City development was formalised on 24th May 2007. The maximum value of this Agreement is £19.75 million with other ancillary items (such as costs related to a Transport and Works Act application) reimbursed at cost.

The Media City works consist of:

- Infrastructure changes at Cornbrook;
- New Infrastructure at Media City;
- 4 new Light Rail Vehicles to provide the service;
- An allocation of appropriate costs to Queens Rd Depot Extension Project;
- An allocation of appropriate costs to Tram Operating System upgrade project.

Peak time services will operate between 07:15 and 20:00 Mondays to Fridays and 09:00 to 20:00 on Saturdays. 5 trams per hour will shuttle between the Cornbrook and Media City stops along the existing Phase 2 network. During these times, the Eccles service will continue to operate 5 trams per hour.

The off peak service will utilise the existing Eccles service, operating 5 trams per hour with the exception of Sundays, which will drop to a frequency of 4 trams per hour. The off peak service will operate between the City Centre in/out of the Media City stop, changing ends and onto Eccles.

## 19.2. Update on Main Issues

### **Legal Powers/Agreement**

A Transport and Works Act (TWA) application was submitted on 25th June 2008. Planning powers have been in place for the Media City Extension since 3rd October 2007.

Notice was received on 9th April 2009 to confer on GMPTE the powers needed for the scheme. This decision notice is unconditional.

No challenge was received in the 42 day notice period following publication in the London Gazette.

### **Design & Construction Status of Media City Spur**

Planning conditions for the Media City extension have been fully discharged.

Peel has received confirmation of planning approval for the feature canopies and GMPTE building (Stop Equipment Room and Driver's welfare area). The canopies are planned to be handed over by the end of December 2009 and the GMPTE building by mid November 2009. These activities lie on the critical

path for successful completion of Media City works by the required commencement date.

MPact-Thales has installed all rail to the design alignment along the corridor into the Media City site. The contractor is currently pouring final stage concrete to embed the rail.

Overhead Line Equipment (OLE) bases are now in place (with some remedial works ongoing) and a number of the OLE poles have been installed at the Eastern end of the site.

The base slab to the stop platform will be cast following removal of the canopy scaffolding by Peel's contractor. The slab will form a level substrate for commencement of laying the granite pavements.

Fit-out of the GMPTE building will commence upon Peel handover of a watertight structure. This is planned for 23 October 2009.

### **Design & Construction Status of Cornbrook Works**

Cornbrook construction works were concentrated into the August blockade on the Altrincham and Eccles lines. The new track alignment and Overhead Line Equipment were installed along with relocation of the existing signalling system.

Although the pocket track is now in place (to allow turnback of the Media City service) this functionality has been disabled pending installation of the new signalling system (TOS). Further works are to be programmed in the new year to bring this element into operation.

### **Testing & Commissioning**

A GMPTE meeting was held on 12th October 2009 to review arrangements for the management of activities which will allow the Media City service to become operational. This meeting focussed on lessons learned from the blockade, the process to be adopted going forward, the programme and ongoing responsibilities.

## **20. Metrolink Phase 3A**

### **20.1. Oldham Rochdale Line**

#### **ORL1**

The Contractor has taken possession of the Oldham Rochdale line from Queens Road to Central Park. Site offices and welfare facilities have been established at Central Park.

Clearance of Japanese Knotweed is complete and drainage works progressing well with permanent outfalls connected.

Refurbishment of existing brick retaining walls is underway.

Scope of works for structures has been identified and the effect of this has been established on the contractor's schedule. Further investigation works are being undertaken on some of the steel bridges to establish the full extent of any strengthening or replacement works that may be required.

ORL2/3

Network Rail severance works at Thorpes Bridge and at Rochdale has been delayed due to lack of Network Rail testing resources until 25th October 09 and 1st November respectively.

Access has been given to MPact Thales and preparatory works are under way.

Planning submissions and approvals are ongoing in line with schedule requirements.

## 20.2. East Manchester Line

Highways detailed design is in progress. Final amendments are being undertaken to the draft Traffic Regulation Order schedules so that they can be formally issued.

Preliminary layouts have been prepared and outfalls identified for drainage works.

Archaeological investigation and 'watching brief' at Sports City are complete.

Retaining wall construction has commenced at Droylsden, Holt Town and Sports City; all are progressing well.

Manchester Road former canal bridge piling works have been completed and substructure works are nearing completion.

Capping beams at Great Ancoats Street are nearing completion. Preparatory works at Merill Street for the track slab have commenced.

Utility diversions in all areas are ongoing with some minor issues being resolved.

## 20.3. South Manchester Line

Sheet piled retaining walls to main alignment are progressing well. Drainage installation has commenced retaining wall finishing works to the reinforced concrete sections at Elsinore Road are nearing completion.

Land issues at St John Vianny School are now resolved. Negotiations with Morrisons over the land required for the St Werburghs' Road Stop are ongoing.

#### 20.4 Trafford Depot

Permanent drainage outfalls are complete along with some 50% of the permanent drainage system for the depot.

Foundations, inspection pits and floor slabs for the depot building are substantially complete. Steel erection for the building frame has commenced.

The formation of the track bed for the stabling yard is ongoing and track installation between the Altrincham lines and the Depot is underway and progressing well.

### 21. Recommendations

21.1. That the Committee notes the contents of the report

**Philip Purdy**  
**Metrolink Director**