

Light Rail Engineers Group Meeting Minutes

Meeting held at the Lucchini Unipart Rail Ltd, Unit 4, Wheel Forge Way, Manchester
M17 1EH
Thursday 6th February

Present:

Craig O'Brien (COB) - UKTram	Dan Hill (DH) - UKTram
Ian Middlemiss (IM) – Blackpool Trams – Chair	Martin Marshall (MM) – Lucchini Unipart Rail
Chris Connolly (CC) – Lucchini Unipart Rail	Mike Crabtree (MC) - Crich
Ian Hale (IH) – London Trams	Alex Dodds (AD) – Network Rail
Darren Cole (DC) – British Steel	Michael Doughty (MD) – Manchester Metrolink
Colin Kerr (CK) – Edinburgh Trams	Graham Thornton (GT) - Manchester Metrolink
Eberechi Weli (EW) – Absolute Risk Tech	Lorraine George (LG) – UKTram
Neil Cundy (NC) – Nottingham Trams	Alex Barry (AB) – London Trams
Steve Firth (SF) – Independent	Lindsey Smith (LS) – British Steel
Iain Henderson (IH) – Edinburgh Trams	Steve Duckering (SD) - UKTram
Matthew Fellows (MF) - Midland Metro	Melyvn Tapper (MT) – Midland Metro

Apologies for absence:

Cathal Dwane (CD) - Siemens	Matt Wright (MW) -
Lee Joyce (LJ) - SYPTE	Andy Conway (AC)
Mike Szender (MS) – Isle of Man	Chris Jackson (CJ) -

ITEM	NOTE	ACTION
1.	WELCOME TO MANCHESTER	
1.1	Prior to the meeting, Martin Marshall and his colleagues from Lucchini Unipart Rail provided the group with a presentation on what their organisation has to offer and what they can do for the light rail industry. (Presentation to be sent out with the minutes)	
2.	INTRODUCTIONS AND APOLOGIES FOR ABSENCE	
2.1	All attendees introduced themselves around the table and IM advised of apologies received (listed above).	
3.	REVIEW OF LAST MEETING	
3.1	Review of Previous Meeting Notes	
	The notes from the previous meeting were accepted as an accurate reflection of the meeting.	

3:2 Review of Previous Meeting Actions

Item 4 – Add forums to the UKTram Members Area on the website – DH/ARHA - Ongoing

Item 5 – Circulate draft Rail Break document for feedback - COB - Completed

Item 9 – Circulate Cathal's Yellow Barrier image from West Midlands to the group. On-going

Actions from this meeting

Item 4 – IM advised that he will be speaking to the LRSSB and will update the group (Review Process)

Item 4: COB to send a scope out of the group's deliverables and asked the group for their feedback.

UKTRAM UPDATE

4.

4.1 Update on UKTram – DH/LG

Business Plan

DH advised that JH has made good progress regarding the UKTram Business Plan 2020/2021, all areas of work have been reviewed from feedback at the UKTram Summit and member visits. All Function Groups Deliverables have been worked through with the Group Chairs. It was presented to the Board last week and will be published for the next financial year in April 2020. JH intends to visit each system again to go through the business plan and our deliverables.

Deliverables

JH has now completed all his system visits and the majority of the UKTram team have now been completed their visits or have visits booked. JH advised that systems are welcome to ask one of the UKTram team to visit them again, should they need any assistance or have any enquires.

The team have continued supporting various systems. Craig O'Brien has been supporting I.O.M. with the horse tram track-work project and Edinburgh Trams with the project on pedestrian crossings, following the Saughton incident.

Mark Ashmore has spent some time assisting SYPTE and TfWM/WMM on H&S matters and Jamie Swift has been supporting TfWM and Blackpool Transport with marketing strategies.

Finance

Our accounts were successfully filed by the 31st December deadline and we also received our Audit report, which was requested at the previous AGM. Following several successful audits.

UKTram Website

The Apprenticeship section of the Members' area is now live on the website. This details information regarding apprenticeships and what apprenticeships are available. Over time this area will grow and provide more information, as well as the details of potential dedicated Light Rail Apprenticeships.

DH advised members that they should now be receiving a monthly E-Shot from UKTram which provides updates, good news stories, best practise etc. He went on to say that the E-Shot will also now provide updates from all the functional meetings and working groups.

Call for Evidence

DH thanked everyone for participating in the response. We are awaiting the latest updates from the DfT. Following the election in December the Minister did not change, but there has been talk of a cabinet reshuffle which could take place later this month. DH advised that we have requested a meeting with the Minister and had a positive response, though are still awaiting a date.

International Activities

Successful visits to Stockholm for CEN Urban Rail WG15 Urban Rail Track Standard and subsequent dial in and UK based meetings, WG18 Urban Rail Infrastructure meetings attended in the UK. UITP LRC 'quick survey' engagement Invitation to return to RAIL Live – Spain (Madrid), and additional invitations to Rail Africa and UITP's North American events.

Driver Vigilance Lab testing

Set up with IRAL and completed during November/December, The results have been handed over to LRSSB to review and a report is due to be issued shortly.

Light Rail Marketing, Communications and Customer Services Group

The second meeting of this new group took place on in Birmingham in November. And was well attended by staff from all systems. The group were looking at creating a transport focus survey as members have complained that the previous survey did not ask the questions that we wanted and felt a need to create something to focus on the areas we want. Once created it will be available to all UKTram member to use at no additional cost.

Members Input and Response

DH advised that while we are getting some great input and support we still have a problem with receiving information following a request for responses at times. This is causing us problems as it hinders our progress delivering for our members and delays timeframes for work to be completed. Due to this, any request for information will be sent out with "read receipt" and a log will be kept of those that do not respond, which will then be used to notify CEO/Managing Directors of systems.

Conference

DH advised that we will not be supporting Mainspring's conference this year. This follows several complaints from members in regards to the structure and content of previous conferences and not being able to address these issues with Mainspring, though detailed discussion took place to try and accommodate these.

UKTram will continue to support the LR Awards and Excellence Days. Currently the Excellence days focus on engineering, but JH stated that we would be open to holding days to support other areas in the industry, e.g. Operations.

UKTram will be holding our summit in September following two previous successful events. The date will be released shortly. Please let us know if there is a topic/issue that you would like us to highlight at the summit. Plans and options were currently being worked on as to the format and delivery of this year's Summit.

COB went on to discuss the group future deliverables. The group agreed to take on the following deliverables:

Predictive Maintenance, Technical Contacts, Shared Equipment and Obsolescence.

Action: COB to send a scope out of the deliverables and asked the group for their feedback.

COB went on to discuss his rail grinder proposal and thanked the group for their feedback. He went on to remind the group that before they start a project or buy equipment etc. to contact UKTram as it could be something we could assist with.

COB then discussed his draft guidance on rail breaks and advised that MD and COB will be visiting Milton Keynes on the 11th of February to look at alternative for looking at defects on grooved rail wear's

A best practise day will be set up around SNC to see whether the standard is fit for purpose. IA is also chairing this Urban Rail group in Cenlec and is looking for volunteer to help work on this standard. Please let IA or COB know if you are able to assist.

LRSSB Update

Business Plan The initial drafting of the LRSSB Business Plan has been undertaken, with the draft document having been circulated to the Board for comment on the 8th January 2020. Some of the key areas identified for inclusion, within the draft document include the following: **Close out Sandilands Recommendations. Application of RM3. BSI, RSSB, Tram Train interface. Standards and Guidance Development. Establishment of Overseas Relationships and Training Development and Delivery.**

Annual Report

Development of the first LRSSB annual report is currently being undertaken, again with the draft document having been circulated to the Board for comment on the 8th January 2020.

TAIR

The current status is as follows: **Industry Safety Alert** (Completion anticipated mid-January 2020), **Risk Assessment** (Completed - initial test platform added to system), **Documents and Standards Development and Approval** completion anticipated mid-January 2020, pending modifications raised at October HOS meeting, **Project Tracker** (In Progress), **RAIB Report index and industry response tracker** (In Progress).

In addition, following requests from a number of individual operators associated to Bowtie risk analysis, LRSSB have reviewed a dedicated software package to facilitate this process and have confirmed the feasibility of the integration of the software, within a portal situated within the TAIR platform. The Bowtie XP software will provide: **Main template index, Generic template upload/download, Discipline categorisations and Actions.**

Risk Model - System Status as of December 2019

SYSTEM	STATUS
Manchester	Model and training delivered.
Blackpool	Model delivered, training to be held 13 th January
Edinburgh	Model and training delivered.
Sheffield	Model delivered, training to be held 14 th January
London	Draft model delivered, final to be sent early January. 1 st session of training to be delivered 20 th Jan
West Midlands	Outstanding information received, draft in progress and undergoing internal checking, to be issued late-January
Nottingham	Outstanding information received, draft in progress and undergoing internal checking, to be issued mid-January
DLR	Ongoing conversation to establish uptake of model

RM3

It has been agreed with ORR that briefing sessions for the Tram sector would be arranged to take place late February 2020/early March 2020.

Standards and Guidance Update - Standards Published to Date (as of 31/12/2019)

LRG 1.0 Tramway Principles and Guidance, LRG 2.0 Non-Motorised Crossings (modification raised at October HOS meeting), LRG 3.0 Management of Electro Magnetic Compatibility (EMC) Guidance, LRG 5.0 Tramway Audible Warning Acoustic Test Guidance

Standards Currently Under Review: *LRG 4.0 - Signing and Marking of Tramways and Highway Interface Guidance, LRG 6.0 - Fatigue Management Guidance, LRG 7.0 - Trap and Drag Prevention Guidance, LRG 8.0 - Vulnerable Persons Guidance, LRG 9.0 - Selection and Recruitment Guidance, LRG 10.0 - Loading for Light Rail Bridges Guidance, LRG 11.0 - Medical Standards, LRG 12.0 - Statutory Reporting of Incidents, LRG 13.0 - Underrun Protection, LRG 14.0 - On-Street/ Off- Street Principles, LRG 15.0 - Stray Current Management, LRG 16.0 - Managing the Wheel-Rail Interface Guidance, LRG 17.0 - Determination of Tramway Wheel and Rail Profiles to Minimise Derailment, LRG 18.0 - Cycle Tramway Interface*

Lab Testing Update

Ian Rowe Report – Conclusions Following the market research and lab testing exercise, a draft report into Driver Inattention Systems has been issued to LRSSB

for comment, with the final report anticipated to be issued to the wider industry by February 2020.

Of the four systems trialled, three performed well under what could be considered as normal operating conditions. The Smart Eye system scored highest overall due to its ability to function when mouth and nose is covered. It is understood that the Guardian system, which scored second best, may be able to address any shortfalls in performance with updated software.

This was followed by the Leisure auto system, which was third in terms of scores achieved and also displayed less functionality than Smart Eye and Guardian.

Additionally, one supplier (Denso) withdrew their permission for results obtained from their system to be published and included within the report.

Recommendations - From this project the following recommendations were made: The report is shared with all UK tram operators, a workshop is held with all UK tram operators to discuss the report and agree on required next phases (Alert/Alarm and Intervention), The report and subsequent workshop outputs is used to form a standard that can be adopted by the industry.

In addition, LRSSB has now begun to work closely with RSSB in terms of their similar works being undertaken with vigilance systems of both the commonly adopted types (DVD and Perclos).

LRSSB is also undertaking tests on Simove, a speed control system currently used on Tenerife. With the assistance of Metrolink the system is being tested on the Rochdale to East Didsbury route with some success. Further live tests will be continued in the near future.

Graduate/Resource Update

The recruitment of 2 graduate trainees is ongoing, although this has been a gradual process, with initially a lack of responses from suitable candidates. LRSSB now have 6 candidates for potential interview and the posts should be filled by the first quarter of 2020.

Dashboard Report

Once the LRSSB Business Plan is approved it is anticipated a Dashboard update will be able to be produced as requested by UKTram Board.

The group discussed the lack of information provided by the LRSSB in regards to the review process of standard, especially when the standard could be reviewed by both the LREG and HOS group as the topic covers both areas. The group asked whether the LRSSB will set timeframes and deadlines for reviews and what was the process once a review has been forwarded to the LRSSB.

The group also asked when will the working groups be formed and when will documents start being released by the LRSSB.

Action: IM advised that he will be speaking to the LRSSB on the issues raised and will update the group

5. LREG – WORKING GROUPS

COB advised the group of the following:

Rail Breaks

- Working Group Chair – Lee Joyce (SYPTTE)
- Group Members – John Weaver, Mike Doughty, John Hemsall and Stephen Lewis
- Concluded 1st and 2nd meetings which established over 30 actions
- The group has recently attended Thermit’s seminar on the 26th September to further understand the process.
- The group is now working with Neil Harvey of Thermit and Chris McKeown from Pandrol who are both very keen to assist us in our work on improving the aluminathermic weld process.
- First draft of Rail Break procedure is complete and ready for review.
- 1st draft of data capture sheet is complete and has been reviewed by the group

The intention is to have Break procedure published through LRSSB by the end of the calendar year.

OLE terminology & Competency

- Working Group Chair – Craig O’Brien (UKTram Engineering Manager)
- Group Members – Des Coulson, Danny Davis and Mike Crabtree
- All volunteers have been confirmed but no meeting has yet been arranged
- Des Coulson has provided all the previous information
- All systems will need to review and comment/add additional items (with drawings and description) to enable an assessment of the terminology used and a document to be produced
- Once the relevant information has been collated, can then form the working group and make the discussion on terminology for each component based on these results to formulate the document.

Under Run Protection

- Working Group Chair – Colin Kerr (Edinburg Tram)
- Group Members – Suggested – Dave Skirrow (formerly Manchester Metrolink) Glin Stanford (Sheffield Supertram) Marek Szwej (Nottingham Trams) Tracy Barnett (Siemens – Edinburgh)
- 1st meeting concluded
- Relevant information has been passed onto the systems for independent reviews and is currently underway on a number of them
- Formula for underrun requirements provided by Colin Kerr and agreed with members
- All systems to review all crossing and platforms and input information into the spreadsheet provided by Colin Kerr
- Contact made with a supplier for the Underrun and Edinburgh has placed an order
- Once all information gathering has been complete by the various systems, a guidance and standard document will be drafted and submitted to LRSSB.

Apprenticeships

- **Tramway Construction Operative (TCO)** – This is the first ever Tramway construction apprenticeship available in the UK. It is intended that this will bridge the skills gap and provide apprentices with progressive opportunities.
- 1st meeting concluded with attendance from Nottingham, Docklands, Sheffield and a member of the EAL
- Follow up meeting took place with Manchester Keolis-Amey
- Follow up meeting took place in Edinburgh with Siemens and NTAR
- Siemens to provide evidence of the strategy for delivery of training as possible template
- Members to provide COB with current training processes and systems (LREG)
- 2nd working group meeting is yet to be arranged and is likely to follow the next LREG
- The plan is to establish a new Light Rail apprenticeship similar to the recently launched construction one
- Also to establish a comprehensive training program for existing and new staff for each organisation.

6. ORR/RAIB/USAN'S/SANDILANDS

6.1 ORR – No updates

6.2 RAIB/USAN – Please find a copy of the report attached to the minutes.

6.3 IM advised that all systems had provided a response to the RAIB latest request and advised that Simon Lomax will be attending the next LREG meeting.

GT advised that the testing of the Simove system has been going well and has been tried out in the depot yard and out on the system and looks like a pretty good option. LG advised that anyone wanting to view Simove should contact IRAL as they will need to activate the system before you view it.

7. SYSTEM UPDATE

IM reminded the group to forward their system updates to LG two weeks before the meeting so that they can be shared within the group prior to the meeting.

Croydon – IH

Incidents

No major incidents

Rolling Stock

A cab cooling solution for the CR4000 Fleet has been established and pending single source approval will look to be installed by June this year. The risk remains of Operator action due to hot cab temperatures if a solution is not implemented for summer 2020.

Development of the CR4000 obsolescence plan is ongoing and an asset condition survey will be commissioned for Bombardier to utilise tram 2547 (underframe crack) whilst being repaired -

concentrating on bodywork corrosion, flooring repairs and roof panel de-bonding - targets to understand work required to ensure life of service 7 - 10 years.

Infrastructure

A few issues with our power supplies over the last few periods; the substations are now 20 years old and showing their age. Problems have included a failed earth leakage detector, two failed battery chargers and an 11kV cable that shorted with the consequential disintegration.

Last meeting we mentioned the track brakes on a couple of Stadlers had gone out of alignment, apparently due to striking something while out running. The good news is that a misaligned troughing lid was found on the Beckenham branch showing signs of damage. The troughing has been moved 600mm away from the track and the lid secured.

Projects/Renewals/Extensions Maintenance

Blackhorse Lane bridge has finally been opened around 3 years after closing due to its condition. The other main project works completing have been the communications system replacement which has finished apart from snagging and the completion of many of the Sandilands recommendations - see below

Innovations/Trials/Equipment

Despite huge efforts, the Positive Prevention of Overspeed System was not brought into service as planned in December due to implementation issues, particularly assumed driving style vs. reality and staff training. These are being worked through currently.

Personnel (Recruitment/Training/Competency)

The new maintenance organisation structure proposed following the fatigue study has all but been approved and recruitment is due to start shortly increasing the teams by 17 personnel.

Rolling Stock

CR4000 motor bogie overhauls completed this period.

Two significant work streams completed this period to improve reliability - Roof top BISS communication cabling replaced across CR4000 Fleet. Brake Pressure Switch (friction brake) modifications across CR4000 Fleet (both areas contributed to 20% of all SAFs 2018/19).

Seeing increase in Can Bus faults across the Stadler Fleet affecting reliability & availability.

Struggling to embed the Sandilands initiatives and modifications technical information and training into our asset management plans.

Blackpool – IM

Rolling Stock

We currently have three trams long term off the road with a number of faults. There are two pantographs that have been damaged, these have been ordered and are due deliverer early Jan 2020. In total we have had four pantographs damaged and these were on a 6 month delivery.

There are three sets of batteries damaged, we are awaiting Bombardier finding an approved supplier so that we can order new batteries. We found our own supplier but Bombardier would not engage with them and have found another supplier. There is no estimate for delivery.

There is a damaged upper articulation on one tram, Bombardier are accepting responsibility for repair as they had previous problems that they repaired in 2017 but this tram was not highlighted as needing repair.

Infrastructure

Blackpool Council are currently carrying out welding work on a number of crossings. They have also had someone in from Huddersfield University to look at rail wear and tyre profiles to see if they can extend the life of the wear by increasing the accepted wear. They are awaiting the report.

Projects/Renewals/Extensions

The extension to Blackpool North Train Station is still on hold.

Innovations/Trials/Equipment

The Trail of the Bombardier Odas and Compas system is still ongoing. A modification will be carried out in Feb 2020. There will then be a continued period of passive trials. The plan is to carry out trails at the end of March and June in active mode with no passengers.

Manchester Metrolink – GT

Rolling Stock

The new batch of M5000 trams has been delayed due to underframe quality issues and it is now expected that the first vehicle will arrive mid-2020.

A further uplift of availability will be required for the opening of the Trafford Park line. The bogie overhaul. The next major program will be the bogie overhaul which is currently being scoped.

Projects/Renewals/Extensions

The Metrolink Capacity Enhancement Program (MCIP) is progressing with 3 park and ride projects being let.

Trafford depot expansion has been designed and is due to start in March giving six additional berths.

Queens Road Depot is at an advanced stage of design and will give an additional 12 berths.

Trafford Park Line (TPL) is currently in the dynamic testing phase with driver training due to commence in Feb.

Innovations/Trials/Equipment

KAM and TfGM are supporting the UK tram Symone trial (To address Sandilands recommendation 3).

Personnel (Recruitment/Training/Competency)

KAM have a new interim Safety Director (Paul Westwater).

Network Rail – IA

Rolling Stock

Tram Train - Vehicle performance and quality issues still being investigated by Stadler (see Sheffield report) Service remains popular. Almost all new rolling stock currently being introduced across the UK network has suffered performance and failure issues resulting in significant delays to service introduction

Current national performance is (at P11 day 26)

PPM 79.4%

CaSL 5.8%

Safety 0.303

Infrastructure

Tram Train - The non-detection problem with the VIS loops on the NR section is still under investigation but appears to have been resolved following the replacement of the cabling. The problem of the excessive tripping at the Ickles substation has been significantly reduced following work on one of the rectifiers.

A recent more severe incident is believed to have been caused by ice build-up on the wires. The running of sweeper trams plus a further resetting of the output level at the substation appears to have resolved this, however the weather has not been sufficiently severe to test this thoroughly.

Wider Network Rail

Recovery from the severe flooding in November now almost complete with most damage repaired. Christmas renewals programme completed with no significant overruns. Details can be found on the website www.networkrail.co.uk

Projects/Renewals/Extensions

The project to recontrol Woodburn Junction signal box to York ROC is now underway and while this will not change the current procedures at Tinsley for tram train operation. The route blockade to carry out the works is due to be finalised shortly.

Work on the learning platform is proceeding well and it is proposed to demonstrate the system at the Light Rail conference in May. An article on the lessons learned from Sheffield one year on has been published in the January edition of PWI Journal.

Other projects of interest

Sheffield tram train extension to Doncaster

Additional stops on current tram train route

TfGM tram train extensions

VivaRail fast charging unit for battery Class 230 product approval

Innovations/Trials/Equipment

Attended SBRI First of a Kind conference and from this are looking at developing:

Positioning GPS to enable location of vehicles to be seen by control and information systems of multiple undertakings

Use of wireless axle counters

Personnel (Recruitment/Training/Competency)

The Light Rail Knowledge & Development team in Network Services is now live with Simon Coulthard as acting head. Alex Dodds joined the team on 27th Jan

Discussions on the Technical Authority light rail technical support team roles and responsibilities have now commenced.

A programme of graduate assessment for this year's intake is currently being undertaken

Nottingham - NC

Rolling Stock

Incentro midlife refresh continues (due for completion October 2020)

Incentro bogie overhaul continues (due for completion November 2020) - this has had problems with quality control at both Alstom (Manchester) and their suppliers.

Waiting on ORR response of Sandilands recommendations.

We are experiencing repetitive brake/traction issues on both tram types. Wiring harnesses, plugs and set up seem to be the main issues.

Infrastructure

Nothing to report other than we are deep in planning for 2020 track renewals around Old Market Square.

Projects/Renewals/Extensions

Planning continues for track renewals

Sheffield

Rolling Stock

Class 399 - The class 399 vehicles are still suffering from reliability issues. The Tram-Train service was reduced from 3 services per hour to 2 services per hour over the festive period due to fleet availability. 399 204 underwent re-commissioning works following its return from Spain after repair by Stadler (Accident damage Oct 2018).

MDBF is a continued concern for SYPTTE, Stadler continue to actively engage to address the concerns and are confident that they can meet the contracted MDBF. A drop in MDBF of the Siemens fleet has been reported by SYSL / noted by SYPTTE with electrical issues being the main cause.

Infrastructure

Rail Replacement - The final phase of SYPTTE sponsored rail replacement is due to begin in May 2020. Due to additional work sites the project is currently circa 125 55G2 rails short, a tender for these additional ML330 (or equivalent) rails has been published.

Innovations/Trials/Equipment

Digital Rail Measurement Trolley - SYPTTE have procured a Graw TEP2.2 Dual head Digital Rail Measurement trolley and have an agreement from SYSL that they will survey the complete network twice per year. This should provide accurate track condition data to assist with maintenance and renewals planning. This data should also provide accurate wear data for the harder ML330 rails installed during the recent SYPTTE sponsored rail replacement program.

Personnel (Recruitment/Training/Competency)

SYPTTE is reviewing the resourcing of the Tram Team in preparation for the end of the current concession (2024) and to provide technical input into the OBC for renewal of the network post 2024.

Lucchini Unipart Rail – MM

Product

Resilient Wheel – LUR have developed an alternative supply solution to the resilient wheel used at Manchester Metrolink. This is currently going through lab testing and will hopefully start service trials in March 2020.

Heavy Bogie Overhaul – LUR will shortly be tendering for the West Midlands Metro heavy bogie overhaul. We are looking to build up our knowledge of bogie overhaul periodicities. As it stands we are aware that both Manchester Metrolink and Blackpool Trams could need to start the bogie overhaul this year. Working out the overhaul periodicities and the commonalities of material use could help LUR to centralise purchasing power and reduce lead-times currently seen on components.

Brake Calliper Overhaul – LUR are now working to offer a solution for Brake Calliper Overhaul with Blackpool. This can be rolled out to any network. If there is a need for an alternative supply then LUR can help.

Hydraulic Unit Overhaul – LUR are now working to offer a solution for Hydraulic Unit Overhaul. This can be rolled out to any network. If there is a need for an alternative supply then LUR can help.

Gearbox Overhaul – LUR are currently carrying out the casualty gearbox overhaul for West Midlands Metro. As part of the service we will be looking to see how extend the in service mileage and push out the overhauls.

Services

NDT Service – LUR are currently carrying out the UAT for Manchester Metrolink. LUR has the facility to attend depot as part of a service agreement to carry out any NDT operations needed.

Depot Maintenance Service - LUR are completing tyre changes on depot for Manchester Metrolink. We have a team of skilled operators that can be sent to site to deal with peaks and troughs in on depot activity. This help when dealing with the recruitment issue and having to offer out permanent contracts.

Material Service – LUR offer a Material Kanban Service. As part of a long term we will review material required with each customer and hold an agreed amount of stock on the shelf. It is then only paid for when used however it is a 24-48 delivery service rather than long 6 month lead-times.

EDINBURGH

Rolling Stock

Following the recommendations from the RAIB report into Saughton, ET has modified the horns on our Urbos 2 fleet to increase the audibility in line with BS EN 15153-4 and carried out audibility testing for all user crossings in line with LRG 5.0 - Tramway Audible Warning Acoustic Test Guidance.

We are also in the early stages of progressing obsolescence of our customer facing systems with a view to have these addressed ahead of passenger service for the new infrastructure.

ET is in the process of novating maintenance contracts from the Council to ET as we are taking on the maintenance aspects of the vehicles

Infrastructure

Following the recommendations from the RAIB report into Saughton, ET has modified all NMUC and updated the associated risk assessments in line with LRG-2.0-Non-Motorised-Tramway-Crossing-Guidance. We have also implemented a suite of anti-pedestrian and underrun protection measures including addressing some of our desire line issues.

We are also in the early stages of progressing obsolescence of our Comms/SCADA/Timetabling systems with a view to have these addressed ahead of passenger service for the new infrastructure.

ET is in the process of novating maintenance contracts from the Council to ET as we are taking on the maintenance aspects of the infrastructure.

Projects/Renewals/Extensions

Trams to Newhaven (ETYP2N)

The ETYP2N project has now commenced with Design being developed for the main works while utility diversions have are progressing in the Constitution St area.

DISC

The DISC public procurement has now completed without a successful outcome. ET will now take this forward with innovative SME that have emerged. We are still confident that a positive outcome can be delivered.

Innovations/Trials/Equipment

Siemens continues to trial their overhead line/pantograph monitoring system.

Personnel (Recruitment/Training/Competency)

ET has now re-enforced the Engineering department with additional resource to progress the various renewals programs and to manage the maintenance functions

Absolute Risk Technology – EW

Order for new trams - Following placement of an order for an additional 21 CAF Urbos trams by Transport for West Midlands, the design review process is getting underway. New features include an Automated Tram Speed Monitoring (ATSM) system, which will apply the tram brakes if the maximum specified speed at a given location is exceeded, to meet the requirements of Recommendation 3 of the RAIB report into the Sandilands accident.

Also included is a door anti drag function in the form of door sensitive edges. An option offered but not taken up was a Tram Forward Collision Warning (TFCW) system, which uses cameras to detect objects in front of the tram that are potential collision risks and warn the driver.

Overhead Line Maintenance - The Contract with Colas for overhead line maintenance is now in place to carry out a 15 year overhead line inspection examination and re-tensioning works replacing all gas tension units for new. As part of the contract Colas are also supplying an on-call 24/7 emergency response for overhead line repairs

The Centenary square extension - continuing the track into Birmingham as far as the town hall and library opened December 2019 to passenger service, this is the first catenary free extension to Midland Metro and the UK utilising battery powered trams. Edgbaston extension is progressing well with catenary free and wired sections connected to an island substation with planned dual traction power capacity to add resilience to the system in the event of failure.

Asset Management Information System (AMIS)

The contract for supply of the AMIS has been awarded to SSG Insight, with their product known as Agility. This software is used in other UK light rail systems, including Edinburgh, Nottingham and Manchester.

Failure Reporting and Corrective Action System (FRACAS)

The CSQ Extension is now in use of the GIS-FRACAS developed for the defect reporting and quick resolution of defects/failures. The system is via APP and Web-access with excellent download (including on-site pictures and files) making it easier to quickly notify maintainers and senior responsible personnel of defects that could impact operations or safety. The GIS-FRACAS also presents status of defects and progress of resolution/actions including an Availability (and overall System Performance).

Failure Review Board

A Failure Review Board has been constituted to Review, Resolve, Recommend actions for defects - management and action close-out process.

Progressive Assurance

There is progress in the potential for implementing a system for the dynamic management of transportation safety hazards and requirements - currently ongoing.

Traction Power

These are currently in the design stage to increase the resilience of the system and to add additional traction power, these will involve three new additional substations, upgrade to dual substation at the Wolverhampton terminus with existing line one substations overhaul and fitted with new equipment.

CRICH

Rolling Stock

Restoration: The “mega” restoration project of London No1 continues. The body has been lowered on to its trucks, most of the traction wiring is in place and the air system is complete.

Mid-Life Lift and Inspections Repairs

London 1622: The truck overhaul is complete and the body reunited with its trucks. The repaint and other bodywork details are in progress.

Newcastle 102: The repaint of the body is well advanced. The air system has been replaced, controller overhaul progressing. The truck frame fractures have been recovered by a specialist welding contractor and assembly of the truck frames have now commenced with new transoms being manufactured “part in house” and fitted. The wheel and motor overhaul by contractor is waiting delivery of drive gears from third party suppliers.

Maintenance

Commissioning of the running fleet for the 2020 season has commenced.

Infrastructure:

PW Renewals

The double track section between Bandstand and Cliffside is being re-laid this winter, using some of the groove rail the Museum purchased from Mersey travel following the collapse of the proposed Liverpool Supertram System.

Accreditation:

The Museum is periodically required to revise and resubmit its Museum accreditation documentation to the Arts Council. This is required to enable the Museum to retain its status as an accredited Museum with a collection of national importance. This accreditation is a vital requirement when applying for grants, external funding etc.

Catering Success

The Museum's catering outlets have recently achieved a 5 star hygiene rating (the highest level) awarded by Amber Valley Council Environmental Health Officer (EHO).

New Catering Building

The project to replace the existing and aging café/tearooms building is being re-evaluated due to rising costs of the proposed development and the difficulties being experienced in sourcing grant aid funding.

Museum Curator

The Museum Curator Miss Laura Waters has gone on a 14th month secondment to The Science Museum Group. A temporary Curator is being appointed to cover until Laura's return.

8. ANY OTHER BUSINESS

MF advised that they are looking to update their electronic permit system which is currently paper based and asked the group whether anyone else is using the electronic system. The group advised that many systems are now looking to use the electronic system and would be happy to share information.

MF went on to ask the group whether anyone using SCADA when grounding and earthing the system. IH advised that Docklands use the SCADA system and would forward MF a contact.

IM advised the group of a plan to change the dates of future meetings from Thurs/Fri to Tues/Weds, The group in principle agreed to these changes, but may have to check calendars when they return to work. New meeting dates below:

9. FUTURE MEETING DATES

19th & 20th May – Nottingham

15th & 16th September – Manchester

24th & 25th November - Blackpool