

Transport for London

Projects and Planning Panel

**Subject: TfL Investment Programme Report – Fourth Quarter
2012/13**

Date: 8 May 2013

1 Purpose

- 1.1 The Investment Programme report for the fourth quarter of 2012/13 (9 December 2012 – 31 March 2013) is attached to inform the Panel of TfL's Investment Programme performance.

2 Recommendation

- 2.1 The Panel is asked to NOTE this report.

3 Contact

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Investment Programme Report
Fourth Quarter January – March 2012/13

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Cover picture; Royal visit to Baker Street where the train is named after the Queen.

Transport for London

Investment Programme Report

Fourth Quarter, 2012/13 (9 December 2012 – 31 March 2013)

I. Programme Highlights and Key Concerns

Programme Highlights in the quarter;

- On the Sub Surface Railway (SSR), the first S7 trains ran in time-tabled service on the Hammersmith & City line on schedule
- Final commissioning of the new SSR signalling system and installation of the state-of-the-art lifting capability was completed at Neasden depot
- Work was completed at Ealing Common depot to enable permanent berthing of the new S7 trains
- The first power to support SSR from the National Grid via the new bulk supply point at Edgware Road commenced over Easter
- Working Time Table 35 to provide 33 trains per hour on the Victoria line was introduced on 20 January
- The Tottenham Court Road Station Upgrade project won the Institution of Civil Engineers London Infrastructure Award for the Northern line Interchange tunnels and the Central line over-bridges
- At Bond Street Station Upgrade the testing of the explosive demolition of the sub-basement vault was successful and work is now progressing, which will allow programme improvements
- On the Bank Congestion Relief project the Innovative Contractor Engagement (ICE) based tenders have been received and evaluation is underway
- The London Underground (LU) Track Delivery Unit completed a full year of work without a Lost Time Injury
- Two rail bridges at Ravenscourt Park were replaced over two weekend possessions in extreme weather conditions
- On 17 February the Northern line between High Barnet and West Finchley was the first section to switch over to transmission-based train control automatic signalling, as part of the Northern Line Upgrade
- Escalators at Canning Town, Canary Wharf, Southwark, Waterloo, Highgate, Clapham South, Westminster and Leicester Square and lifts at Westminster and Green Park were brought back into service
- The Cycle Super Highways CS2 extension is now underway and the first phase of delivery of Route 5 (Oval to New Cross) is scheduled to begin in the next quarter
- The remaining SCOOT sites (providing upgraded traffic signal technology) have been installed

Key Concerns and Mitigations

- There are some emerging differences between what Bombardier stated at the SSR Upgrade ATC tender and what is being delivered. It is believed these are all manageable within the overall cost, schedule and performance envelope, but is being closely monitored by the team
- Continued progress to implement technical solutions required for SSR Upgrade signalling immunisation (to ensure legacy track circuits and Network Rail systems are not susceptible to electrical interference from S Stock trains) on sections of the District line
- The Ealing and Upminster depots project continues to experience schedule slippage resulting from contractor's poor design of the north sidings to enable berthing of the trains outside of the depot sheds. Although the slippage is not critical to the overall SUP schedule, it has resulted in increased costs for the contractor, which are currently under review, prior to apportionment
- An increasing trend in the rate of lost time injuries on the Stations upgrade programme and the underlying injury frequency rate is the subject of intensive investigation. Additionally, HMRI are undertaking a full investigation of a serious near miss following a section of track being erroneously energised at Earls Court in January 2013. A Formal Investigation Report is underway following the traction current being switched on in the possession worksite at Leytonstone

2. Projects (over £50m) and Programmes (over £10m per annum)

TfL's Investment Programme contains a range of programmes and projects over £50m, in addition to a multitude of smaller activities. These are delivered by TfL directly, through partners in the London boroughs, or through long-term partnerships with the private sector such as Private Finance Initiatives (PFI's).

This main body of this report covers discrete projects with a total cost greater than £50m and programmes spending over £10m per annum. For each project, key milestones are listed with a forecast date compared against the March 2012 baseline. If appropriate, milestones listed as deliverables for the year in the 2012/13 Budget document are included.

Committed schemes and milestones listed in Annex B of the 2010 Spending Review funding settlement letter are included in this report. The milestones contained in Annex B are identified in the project pages with the note '(Annex B: date)' listed after the description.

Key to RAG status:

Status	Discrete Projects	Annualised Programmes
●	On time or early	100 per cent of target achieved
▲	Between 1 and 89 days late	>75 per cent of target achieved
■	Greater than 90 days late	<75 per cent of target achieved

This report focuses on the delivery of investment projects. For discussion on wider financial performance, see the Quarter 4 Operational and Financial Report.

The estimated final cost (EFC) of some of the projects is not included (marked as * or N/A) for reasons of either commercial confidentiality or annualised programmes.

Rail and Underground Capital Programmes

Sub-Surface Railway Upgrade

Spend to end Q4 2012/13 £m	EFC £m
2,484.8	4,224.4

Programme level	Current Plan Date	Actual/Forecast Date	RAG
S Stock Preview Service on Hammersmith and City	09-Jul-12	06-Jul-12	Complete
S Stock in Timetabled Hammersmith and City Service	09-Dec-12	09-Dec-12	Complete
Roll out of new air-conditioned trains on the Metropolitan Line complete (Annex B: 2013)	02-Mar-13	14-Oct-12	Complete
Rolling Stock	Current Plan Date	Actual/Forecast Date	RAG
S-Stock Reliability Equivalent to A stock (MDBSAF)	21-Jul-12	17-Aug-12	Complete
57th S8 Stock available for delivery to London	13-Oct-12	11-Jul-12	Complete
All A-Stock removed from service	02-Mar-13	14-Oct-12	Complete
SUP Rolling Stock Sub-programme Completion	31-Mar-19	31-Mar-17	●
ATC	Current Plan Date	Actual/Forecast Date	RAG
Location Identified and Agreed for ATC Train Fit Bay	21-Jul-12	08-Jun-12	Complete
End State Track Layout delivery programme in place	15-Sep-12	14-Sep-12	Complete
System Level Requirements Approved by ATC Supplier	05-Jan-13	21-Dec-12	Complete

Rail and Underground Capital Programmes

Stable Design Data for End State Track Layout North of Baker St	05-Jan-13	19-Oct-12	Complete
Uxbridge Stabling Detail Design Complete	31-Mar-13	28-Mar-13	Complete
Approval of the Signal Equipment Rooms Premises Conceptual Design Statement	31-Mar-13	04-Feb-13	Complete
Full signalling upgrade across the Sub-Surface network complete (Annex B:2018)	31-Dec-18	31-Dec-18	●
Depots	Current Plan Date	Actual/Forecast Date	RAG
Neasden Depot - Rail access into New Lifting Maintenance Facility enabled	08-Dec-12	25-Jul-12	Complete
Ealing Common Depot - S7 test train permanent berthing enabled	05-Jan-13	18-Nov-12	Complete
Neasden Depot - Phase 2 Signalling Commissioned	31-Mar-13	02-Mar-13	Complete
Neasden Depot - Ability to lift S-Stock in New Lifting Maintenance Facility	31-Mar-13	02-Mar-13	Complete
SUP Depots Sub-programme Completion	31-Mar-15	31-Mar-15	●
Infrastructure Other	Current Plan Date	Actual/Forecast Date	RAG
Paddington (H&C) Infrastructure ready for integration testing	21-Jul-12	04-Jul-12	Complete
Paddington (H&C) Infrastructure complete	08-Dec-12	04-Jul-12	Complete
Stepney Green to Bromley-by-Bow Infrastructure ready for integration testing	02-Feb-13	04-Oct-12	Complete
Tower Hill Infrastructure ready for integration testing	02-Feb-13	02-Feb-13	Complete

Rail and Underground Capital Programmes

Stepney Green to Bromley-by-Bow Infrastructure complete	31-Mar-13	31-Oct-12	Complete
SUP Enabling Other Sub-programme Completion	31-Dec-17	31-Dec-17	●
Conductor Rail	Current Plan Date	Actual/Forecast Date	RAG
SUP ELLCCR Sub-programme Completion	31-Dec-12	31-Dec-12	Complete
Extra Low Loss Conductor Rail (ELLCR) - Installation complete	02-Feb-13	04-May-12	Complete
S7	Current Plan Date	Actual/Forecast Date	RAG
SUP S7 Sub-programme Completion	31-Dec-17	31-Dec-17	●
DC Power	Current Plan Date	Actual/Forecast Date	RAG
SUP Power Sub-programme Completion	30-Jun-16	30-Jun-16	●
Signal Immunisation	Current Plan Date	Actual/Forecast Date	RAG
Completion of the Signalling Immunisation works*	10-Nov-12	27-Jan-14	■
SUP Signalling Immunisation Sub-programme Completion	30-Jun-14	26-Aug-14	▲
Management	Current Plan Date	Actual/Forecast Date	RAG
SUP Programme Management Sub-programme Completion	31-Dec-17	31-Dec-17	●

* The delay is due to the need to change the design of the technical solution. Several options to mitigate these delays are being explored.

The Sub-Surface Railway (SSR) network (consisting of the Circle, District, Hammersmith & City and Metropolitan lines) upgrade (SUP) will provide new air-conditioned rolling stock, new signalling, modified depots and stations to accommodate the new longer trains and a new control centre. The upgrade will increase capacity and reduce journey times. The programme

Rail and Underground Capital Programmes

benefits will be delivered by 2018. The programme is on budget and on schedule to achieve its planned delivery date.

A key accomplishment for the programme this quarter was the milestone to run S7 trains in timetabled service on the Hammersmith and City line. This followed completion of preparations to the infrastructure and was delivered, on schedule, on the 9 December 2012.

The scope of the programme has increased with the inclusion of three projects that will: improve inter-operability with the Piccadilly line following the introduction of the SSR automatic train control (ATC) system; improve energy efficiency through conversion to 750 volt traction; and enhance maintenance capability at Neasden Depot. These projects have been assigned to the programme as the most efficient and cost effective way to deliver them due to their geographical location and the level of integration with existing programme deliverables and increases the programme's authority from £4,223.9m to £4,243.8m

The programme is organised around the following four delivery areas:

Rolling Stock

By the end of the quarter, a total of eleven S7 trains had been delivered to London, up to three of which are now being used in timetabled service on the Hammersmith and City line, the balance are being used for infrastructure testing and training purposes. A further 13 trains have been delivered to Old Dalby test track where they undergo commissioning and a period of "Fault Free Running" to ensure acceptable levels of reliability before being delivered to London. A further seven trains have been produced by Bombardier, awaiting delivery.

The reliability of S stock has shown a steady improvement trend during the quarter exceeding the targeted level of reliability expected for newly introduced stock. Further developments have been planned and will be key to driving future reliability improvements.

A programme of train enhancements on Metropolitan line (S8) trains has continued during the quarter. These modifications will improve the functionality of the passenger saloon and drivers cab as well as modifying bogie and axle components to improve their longevity. This enhancement work is required on 37 of the 58 Metropolitan Line fleet and is being performed at Bombardier's facilities in Derby which will ensure no disruption to operations at the Neasden workshop. Metropolitan line services are being supplemented with replacement S stock trains so there will be no disruption to customers. New trains currently being built in Derby for the Circle Line have all these enhancements built into the core design.

Automatic Train Control (ATC)

The project started testing of the signalling equipment hardware at the Old Dalby test track in the last week of December 2012, as planned, and will continue this testing through to 2014. In conducting testing at Old Dalby, the reliability and performance of the system will be proved before being introduced into operating service, thereby minimising disruption to customers and reducing the need for closures.

LU continues to meet its obligations to deliver enabling works for the ATC system including construction of Cable Route Management Systems for the signalling, customer information systems and communications systems; provision of new low voltage alternating current supplies to power the ATC signalling equipment; upgrading the 630 volt DC traction supply to 750 volts, and construction of buildings to house new Signal Equipment Rooms (which achieved Premises Conceptual Design Statement approval in the quarter). All these projects are on target to meet LU commitments in Bombardier's delivery programme.

During the quarter Bombardier have conducted a comprehensive review of issues impacting programme delivery and have submitted a revised schedule which is currently being reviewed for approval by LU.

Rail and Underground Capital Programmes

There are some emerging differences between what Bombardier stated at tender and what is being delivered, and whilst it is believed these are all manageable within the overall cost/schedule/performance envelope this is being closely monitored by the team.

The End State Track Layout (ESTL) project delivers modifications to the SSR track layout that will provide operational and performance improvements, some of which are required to run 32 trains per hour. To deliver these track modifications, the SUP programme is reviewing how these can be delivered whilst minimising disruption to the railway and customers; this includes exploring innovative techniques used elsewhere in the world that have not previously been used on London Underground.

Depots

Final commissioning of the new depot signalling system has been completed at Neasden depot and brings the depot signalling system to its end state.

The installation of the new lifting equipment was completed in the quarter at Neasden and the first train lift successfully completed. This new state-of-the-art lifting capability greatly improves the speed and efficiency of train maintenance through its ability to lift an entire train rather than the previous practice of separately lifting individual carriages.

Work has been completed at Ealing Common depot to enable permanent berthing of the new S7 trains. However, the Ealing and Upminster depots project continues to experience schedule slippage resulting from poor design and management of the delivery of the north sidings to enable berthing of the trains outside of the depot sheds. Although the slippage is not critical to the overall SUP schedule, it has resulted in increased costs for the contractor which are currently under review prior to apportionment.

A new project to develop Ruislip depot has been approved to provide pits at the depot which will enable the fitting of ATC equipment to S Stock, heritage and engineering trains, and is scheduled to be completed in March 2014.

Infrastructure

A key achievement this quarter has been the introduction, on schedule, of S Stock into timetabled service on the Hammersmith and City line. This followed the completion of technically demanding works and a weekend closure at Aldgate in October 2012 to make alterations to existing railway sub-systems including track, signalling, OPO (One Person Operation), stopping systems, platforms and signage. Subsequent test train runs in November 2012 and December 2012 established that each section of the infrastructure was performing correctly and was safe to bring into use.

Wembley Park sidings were brought back into use in February 2013 having been decommissioned in June 2012 for enabling work to provide stabling berths for S7 trains. The works comprised improved signalling, lighting, communications and security systems. This work was delivered to budget, on schedule and in time to facilitate running an increased number of trains in service when the new Hammersmith and City Working Timetable is introduced in May 2013.

Continued progress has been made this quarter to implement technical solutions required for signalling immunisation (to ensure legacy track circuits and Network Rail systems are not susceptible to electrical interference from S Stock trains) on sections of the District line. The delay due to the need to change designs has affected forecast completion which is currently January 2014 against the planned immunisation completion date of November 2012. Several options to mitigate these delays are being explored.

Integration testing of the railway infrastructure using S stock trains, prior to the introduction of S Stock in passenger service, has continued in other parts of the of SSR network where the

Rail and Underground Capital Programmes

infrastructure has been upgraded, and this quarter has included the start of testing on the Circle line.

SSR Major Power Works (Signalling)

Spend to end Q4 2012/13 £m	EFC £m
5.6	*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
SSR Signalling Power Package 1 - Contract Award (New transformer rooms - 6 Met Line plus 1 H&C Line)	02-Feb-13	09-Nov-12	Complete

This project will provide the main power supplies for the Sub-Surface Railway signalling (local distribution of signalling power is covered elsewhere).

Early minor works progressed to programme; mobilisation commenced on the first main package following contract award and details of how power supplies for signalling where LU trains run over NR tracks have been resolved, realising a circa £5m cost efficiency saving in the process.

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SSR Major Power Works (Traction)

Spend to end Q4 2012/13 £m	EFC £m
320.4	505.0

Programme level	Current Plan Date	Actual/Forecast Date	RAG
P8M: Pk6 Murphy Completion of Cable Pull	21-Jun-12	21-Jun-12	Complete
Power to Support 53 S8 & 48 S7C & 9 S7D Trains in service Available	27-Sep-12	27-Sep-12	Complete
SSR - power available to Support Met Line (x53 S8), Circle Line (x48 S7C) + Dis. Line (x23 S7D) trains in service	13-Oct-12	01-Oct-12	Complete
Power to Support 53 S8 & 48 S7C & 59 S7D Trains in service Available	04-Mar-13	04-Jan-13	Complete
Power to Support Full S8 & S7C & S7D Train Fleet in service available	04-Mar-13	04-Jan-13	Complete
SSR Power Upgrade - Package 3b Contract Award for 7 substations (5 upgrades + 2 new builds)	31-Mar-13	22-Feb-13	Complete
Programme Stage Gate 6 Review (SSR PU Programme Close)	15-Jun-18	15-Jun-18	●

This programme will deliver the upgraded power supply capacity to support the entire SSR line upgrade. Capacity is in place to support the entire S8 fleet in pre-ATC mode. Work is now underway to support the introduction of the S7 fleet and the move to full performance under ATC.

Works to permit the introduction of the S7 fleet in pre-ATC mode progressed to plan.

Works to permit full performance of both S7 and S8 fleets in post-ATC mode progressed to plan in all areas except on the Metropolitan line, where some elements are delayed by circa four months. These delayed elements are needed by mid-2015, and are expected to be complete before the end-2013, so represent no threat to the wider plan.

Significant milestones were achieved in the placing of the contract for post-ATC power capacity on the Circle line (Package 3b) and the first import of power from the National Grid via the new Bulk Supply Point at Edgware Road (Package 4) in the early hours of Good Friday.

The Office of Rail Regulator (ORR) are undertaking a full investigation of a serious near miss, during which a track section was energised erroneously, following a cable being connected incorrectly at Earls Court substation in January 2013.

Rail and Underground Capital Programmes

Victoria Line Upgrade

Spend to end Q4 2012/13 £m	EFC £m
1,006.8	1,025.4

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Programme Ready for Introduction of WTT34 (30TPH)	22-Apr-12	22-Apr-12	Complete
Delivery of Victoria Line Upgrade Capability	21-Jul-12	02-Apr-12	Complete
Victoria Line Capacity Increase - Introduction of Working Time Table 35 (33TPH) (Annex B:2013)	31-Mar-13	20-Jan-13	Complete

The Victoria line upgrade is a “total” line upgrade including new rolling stock, signalling, control equipment, depot and track works. The programme remains below authority and has been completed ahead of the contractual completion date of August 2013. System reliability, including mitigating the effect of passenger interactions, remains the primary focus. The programme is driving towards completion of snagging, maintenance documentation, and handover to Asset Performance Directorate (APD) as well as commercial close out. Bombardier continues to address the agreed snagging programme of modifications to the 09TS.

All required benefits have been delivered or exceeded. Financial close out is in progress. System reliability, sustaining an overall rising trend, continues to be driven to greater levels of performance (c. 24k km Mean Distance Between Service Affecting Failures in March 2013). This is to underpin the 33tph timetable and support the transition to world class performance which is a new project.

33 Trains Per Hour (TPH)

Working Time Table 35 was introduced on 20 Jan 2013 and is designed to provide the most intense service on the network for one hour in both directions during each peak.

Rail and Underground Capital Programmes

Underground General Renewals

Spend to end Q4 2012/13 £m	EFC £m
101.6	N/A

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Approval of Concept Submission - Tunnel Cleaning Train Motive Power Unit	13-Oct-12	16-Jul-12	Complete
Engineers Loco 3 - Life Extension	10-Nov-12	05-Jul-12	Complete
Completion of Victoria Line Automatic Track Monitoring System (unit 1)	08-Dec-12	05-Dec-12	Complete
Finish on Site - 218 Car Body Ends	31-Mar-14	31-Mar-14	●

This is a portfolio of projects to upgrade and improve rolling stock, signalling systems and other train system assets that are not covered by the line upgrades.

'92 Tube Stock Refresh

488 body ends have now been completed against a target of 458 and a total of 608.

Battery Loco Life Extension

The sixth battery locomotive is due for completion on 29 April 2013; slightly behind schedule. This has been affected by the installation of the first 750V modification and will not adversely affect other milestones. The seventh battery locomotive commenced, on target, on 2 January 2013 and is due to finish on target on 28 June 2013.

New Tunnel Cleaning Train (TCT)

The tunnel cleaning train consists of a motive power (haulage) unit (MPU) being created by the conversion of legacy rolling stock at the Railway Engineering Workshop (REW) and the tunnel cleaning unit (TCU) being supplied by Shorling. The MPU approval of concept submission milestone was achieved on target in March. In response to the emergence of environmental issues associated with the design of the TCU a suite of tests and modelling was conceived to establish the limits of an operational envelope. The next stage is to validate these parameters and to identify the optimal design within them to clean the tunnels.

Automatic Track Monitoring System – ATMS

Validation and calibration tests on the fitted 09TS are taking place using test paths, with minor software issues being resolved. This phase is scheduled to be complete by the end of May, when the first 09 TS train will be available for beneficial use. The remaining actions relating to the laser instrumentation will be completed by end of April.

Rail and Underground Capital Programmes

Central Line Bogie Modifications

Since finding the first failure in April 2011, 3.8 per cent of the installed bearing population have failed. These failures have been found during inspections or maintenance activities. A paper will be submitted seeking approval for the funds to replace the bearings.

Rail and Underground Capital Programmes

Victoria Station Upgrade

Spend to end Q4 2012/13 £m	EFC £m
238.3	589.4

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Completion and Bring into Use of Network Rail to LUL Ticket Hall stairs (Sussex Stairs)	23-Jun-12	31-May-12	Complete
Northern Ticket Hall Piling of Box West completed	13-Oct-12	12-Oct-12	Complete
Commence South Ticket Hall Main Works	10-Nov-12	15-Oct-12	Complete
Commence Wilton Road Piling	03-Jan-13	10-Dec-12	Complete
Commence North PAL Open Cut Excavation	14-Jan-13	13-Aug-12	Complete
North Ticket Hall, access to Vic Line, LFEPA Shaft (Sectional Completion S1) - DIS (Annex B:2016)	23-Oct-16	28-Nov-16	▲
South Ticket Hall and remainder of VSU works (Sectional completion S2) - DIS (Annex B:2018)	04-Jun-18	17-Jul-17	●

The Victoria Station Upgrade project will deliver:

- a new underground north ticket hall at the junction of Bressenden Place and Victoria Street, with an entrance at street level
- a capacity increase in the existing Victoria line ticket hall (south ticket hall)
- nine new escalators
- a new interchange tunnel connecting the two ticket halls
- new lifts providing step-free access between street, ticket hall and Victoria line platform levels
- new lifts providing interchange between the Victoria line and District and Circle lines platforms
- improved access and new lifts between the National Rail and Underground stations

The project remains on schedule and within authority.

More than half of the 2,200 ground stabilisation jet grout columns have now been successfully installed in the roads around the station. The Bressenden Place worksite has been successfully relocated across the completed western section of the new North ticket hall and the site set up for the eastern section of the new ticket hall has commenced ahead of plan.

The minor delay relating to the fire brigade lift shaft is expected to be recovered due to re-sequencing of the programme.

Rail and Underground Capital Programmes

Paddington Station Upgrade

Spend to end Q4 2012/13 £m	EFC £m
43.9	*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Lifts Manufacture Complete (At Factory)	15-Sep-12	14-Sep-12	Complete
Lifts Installed	02-Aug-13	23-Jul-13	●
Final Fit Out BIU (Practical Completion)	28-Jul-14	23-May-14	●
Acceptance of MAID by LU	08-Oct-14	29-Jul-14	●
LU Fit Out Work Complete (Annex B:2014)	01-Nov-14	09-Jun-14	●

Paddington (Hammersmith & City line) station is one of LU's top priorities for congestion relief due to demand growth associated with local area redevelopment and the Sub-Surface Railway upgrade. The project will provide:

- a new ticket hall
- significantly enlarged passenger concourse with three staircases to platform level
- provision of new step-free access from street to platform level (H&C platforms)

The Main works package (delivered through Crossrail) is due for completion in early May, having seen significant progress recently. The station fit-out works are progressing ahead of programme. Staircase 4 has been brought into use and all internal block work has been completed. The electrical installation package commenced earlier than planned and platform paving works have also commenced.

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Tottenham Court Road Station Upgrade

Spend to end Q4 2012/13 £m	EFC £m
286.6	486.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Central Line Overbridges Complete (possession works)	21-Jul-12	18-Jun-12	Complete
Commence Ticket Hall Fit Out	02-Feb-13	14-Jan-13	Complete
Start New Oxford Street Entrance Fit-Out	02-Feb-13	14-Jan-13	Complete
Section 1 Completion (Handover part Astoria site)	09-Oct-13	14-Aug-13	●
Section 3 Completion (Consolidated Piling)	19-Sep-14	05-May-14	●
Completion of Phase 1 (Partial Opening of the New Plaza Ticket Hall)	31-Mar-15	30-Jan-15	●
Completion of the Project (Annex B:2016)	31-Dec-16	29-Dec-16	●

The project will provide:

- a new ticket hall (six times larger than the existing)
- three new escalators serving the Northern line
- improved access from street to ticket hall and from ticket hall to platform level (five new lifts)
- provision for a new public square at St. Giles Circus
- a significant portion of the structural works for the new Crossrail station (by LU)

The project remains on schedule and within authority.

The Project has won the prestigious ICE London Infrastructure Award for the Northern Line Interchange tunnels and the Central Line over-bridges.

Fit out works are progressing well within the basement of the new ticket hall, and the Goslett Yard base slab steelwork has been completed ahead of plan. The main contractor (VBN) is finalising plans to ensure that the proposed 11 month closure of Central line platforms (due to commence January 2015) is fully utilised.

Rail and Underground Capital Programmes

Bond Street Station Upgrade

Spend to end Q4 2012/13 £m	EFC £m
151.6	290.2

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Demolition of sub-structure Complete	02-Feb-13	30-Apr-13	▲
Start of main tunnelling operations (Annex B:2013)	14-Oct-13	09-Sep-13	●
Close escalators 1 & 2 for tunnelling	28-Apr-14	11-Jan-14	●
Early hand back Jubilee Line Platforms, Escalators 6,7,&8, 3,4,&5, 4/092 into public use	02-May-15	03-Mar-15	●
Tunnelling Set Up Decommissioned	28-Sep-15	19-Nov-15	▲
SC03 OSD Frame to be handover to Developer - Planned Date	06-May-16	22-Apr-16	●
Practical completion (Annex B:2017)	28-Apr-17	10-Mar-17	●

Bond Street station is a key interchange between the Jubilee and Central lines. Long term demand and congestion are forecast to increase further as a result of growth in employment and leisure travel and the completion of Crossrail in 2018. The scheme provides:

- two additional escalators from the interchange level to the Jubilee line
- a low-level interchange route between the Central and Jubilee lines
- a new step-free entrance and ticket hall on Marylebone Lane
- four new lifts, allowing step-free access to platforms on both the Central and Jubilee lines
- step-free route to Crossrail

Following February's successful test, the explosive demolition of the sub-basement vault is progressing well, with minimal impact on surrounding business or the operating railway. Completion is scheduled for the middle of April and will result in a residual delay of 6 weeks (reduced from 17 weeks originally). The main contractor is working on options to re-sequence tunnelling activities to commence tunnelling earlier and opportunities are emerging through this work to mitigate the residual delay

Rail and Underground Capital Programmes

Bank Waterloo & City

Spend to end Q4 2012/13 £m	EFC £m
15.5	*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Bring Into Use (Stage 5) (Annex B:2015)	31-Dec-15	23-Dec-15	●

The Bank (Bloomberg Place) project will provide easier access to streets south and south-west of the station, reduce congestion on the Waterloo & City line platforms, and provide step-free access to the Waterloo & City line. LU is making a fixed contribution to the funding of the construction of the station box shell, which will be delivered by the developer (Bloomberg). LU will fit out the station box to complete the new entrance. The project schedule is highly dependent on the developer.

The project remains on schedule and within authority. Bloomberg have commenced construction of the LU station box they are constructing as part of their Bloomberg Place development. The first of the early contractor engagement forums has been held ahead of the issue of tender documentation.

Rail and Underground Capital Programmes

Bank Station Capacity

Spend to end Q4 2012/13 £m	EFC £m
66.9	625.0

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Submit for Transport & Works Act Order (TWAO)	30-Apr-14	11-Apr-14	●
TWAO Grant of Powers	30-Sep-15	30-Sep-15	●
RIBA E-F Design Phase Completed	31-Dec-15	31-Dec-15	●
Start on Site	04-Jan-16	04-Jan-16	●
Ticket Hall Delivery into Service	14-Sep-21	25-Aug-21	●
Beneficial Use	31-Dec-21	31-Dec-21	●

The Bank Northern line congestion relief project will relieve current and expected congestion in Bank station, by having a new southbound running tunnel and platform with the existing platform utilised as a concourse area. By mitigating increasingly frequent congestion of the Northern line/DLR area, station closures will be reduced.

Tenders were received from all four bidders on 25 February.

Tender evaluation is now underway and is progressing well. Indications are that the Innovative contractor engagement (ICE) process has been successful in driving innovation.

All the planned property purchases for the year have been completed.

Rail and Underground Capital Programmes

Station Development

Spend to end Q4 2012/13 £m	EFC £m
1,266.4	1,396.2

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Complete Design Validation - Vauxhall Station Capacity & Step-Free Access	11-May-12	10-May-12	Complete
Highbury & Islington Event Mitigation Works available for Beneficial Use	21-Jul-12	22-Jun-12	Complete
Cannon Street Bring into use	27-Jul-12	26-Jul-12	Complete

This comprises projects primarily to keep stations fit for purpose. It also includes minor station upgrades, some of which are third party funded works and budgetary provisions for future station capacity schemes. Planned funding for Finsbury Park, Highbury & Islington and Vauxhall stations, along with a general provision for congestion relief schemes, are included in this programme.

All works at Heathrow T123 are now complete. At Cannon Street new lifts have been successfully brought into service completing a project that has transformed the station. An impressive double height ticket hall accessed from Dowgate Hill has been created and lift access provided to both the Network Rail station and the westbound District and Circle platform.

At Vauxhall the Invitation to Tender for the design and build contract has been returned and an award is imminent.

Rail and Underground Capital Programmes

Stations Third Party Schemes

Spend to end Q4 2012/13 £m	EFC £m
2.9	*

Croxley

LU completed the technical reviews of tender documentations for Hertfordshire County Council (HCC). The recommendation for contract award has been issued to the HCC board. A decision from the Secretary of State is expected in Spring 2013 on the TWAO.

Thameslink

Spend to end Q4 2012/13 £m	EFC £m
35.3	42.4

Programme level	Current Plan Date	Actual/Forecast Date	RAG
London Bridge Network Rail Station - Network Rail Complete Works	10-Jan-19	10-Dec-18	●

This project provides LU support and infrastructure protection to the Thameslink programme delivered by Network Rail (NR). All of the expenditure is reimbursed by NR.

At Blackfriars - snagging works continue towards a full hand back of all assets. Farringdon Station is now fully operational. The programme to clear all snags is progressing with Network Rail and a date for the completion of all works is in the process being agreed.

Rail and Underground Capital Programmes

LU Lifts & Escalators (BCV/SSR)

Spend to end Q4 2012/13 £m	EFC £m
166.8	*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Charing Cross Escalators 1 and 3 return to service	28-Apr-12	23-Apr-12	Complete
Tottenham Hale Escalator 1 return to service	28-Apr-12	21-Feb-12	Complete
Baker St. Escalator 3 completion of works and return to service	23-Jun-12	18-May-12	Complete

Lift and Escalator refurbishment works are undertaken to ensure continued safe and reliable operation of the assets and to minimise failures which could result in unplanned station closures.

Baker Street Escalators 5 and 6 were brought into use a full eight weeks ahead of programme.

Victoria Escalators 4 and 6 have been delivered considerably ahead of plan.

TfL and Crossrail have jointly awarded a major contract to Otis for one of the UK's largest station escalator orders, and to Kone for one of the UK's largest station lift orders.

Both contractors have now mobilised their teams and site works are due to commence shortly.

The refurbishment of two escalators at Highbury and Islington has commenced, due for completion in the autumn.

Rail and Underground Capital Programmes

Cooling the Tube Programme

Spend to end Q4 2012/13 £m	EFC £m
172.1	186.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Out of service fans - Phase 4 - All fans available for beneficial use	10-Nov-12	16-Jun-12	Complete
Out of service fans - Phase 4 - Handover to Maintenance (excluding Green Park and Oxford Circus transferred to Stations programme)	30-Jan-13	05-Nov-12	Complete

This is a long term programme to control ambient temperatures on the Underground to stop them increasing as the train service increases. Without intervention, temperatures will rise as more energy is dissipated within the tunnels due to increased train service capability delivered by the deep-tube line upgrades.

Works progressed to plan.

Financial authority was obtained for construction of the next tranche of “simple” extract fan restorations and for the design of the next tranche of “difficult” restorations. Tenders for both of these elements are about to be sought.

Rail and Underground Capital Programmes

Crossrail

Spend to end Q4 2012/13 £m	EFC £m
180.0	279.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Work Package Plan Agreed for Moorgate Ticket Hall Sterilisation (Stage 1)	28-Apr-12	24-Apr-12	Complete
Agreement of Crossrail System Integration User Requirement Statement	28-Apr-12	25-Apr-12	Complete
Liverpool St Enabling Works Bring into Use Station Operations Room	08-Dec-12	28-Oct-12	Complete
LU Support Complete for Crossrail Trial Running Stations (Central Section)	28-Feb-19	31-Dec-18	●

This project provides LU support and infrastructure protection to the Crossrail Programme delivered by Crossrail Limited (CRL). The vast majority of the expenditure is reimbursed by CRL.

CRL/LU agreed that the Paddington Bakerloo Line Link will be provided under the Development Agreement. Work to develop the first draft of the work package plan is concluding with CRL.

All items on the platform cross-section prototype were tested under load conditions with no major issues. CRL is developing the design deliverables for LU acceptance.

LU approved CRL tunnelling above the Jubilee line which was successfully completed with recorded movements well below predictions. Regular and reliable updates from monitoring system were received through out the interface.

The programme for Stations Operations Room Integration Project was baselined.

Rail and Underground Capital Programmes

Track Renewal (BCV/SSR)

Spend to end Q4 2012/13 £m	EFC £m
96.3	95.2

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Points and Crossings - Achieve 2 units	12-Oct-12	17-Sep-12	Complete
Ballasted Track Replacement and Re-ballast Metres - Achieve 1,637m	12-Oct-12	17-Sep-12	Complete
Track Drainage - Replace 4,648m	12-Oct-12	02-Nov-12	Complete
Deep Tube Class 1 Renewal (Expected trackform life of 40 years) - Achieve 1,014m	12-Oct-12	18-Sep-12	Complete
Completion of Central Line Blockade (11 Points & Crossing renewed)	05-Jan-13	05-Nov-12	Complete
Ballasted Track Replacement and Re-ballast Metres - Achieve 6,908m	31-Mar-13	18-Mar-13	Complete

Track Programme SSL/BCV

The Track programme remit is to deliver a five year programme of track, drainage and points and crossings renewals against an established schedule of work. By 2018 the target is that 25 per cent of new infrastructure will have been delivered.

During Quarter four the Track Programme achieved the remaining Programme Accountable Milestones and also exceeded the 2012/13 DfT milestone pre-cursor target to renew four per cent of track infrastructure on the Bakerloo, Central, Victoria and sub-surface lines.

At Leytonstone Ballast Track Renewal works (BTR) were cancelled due to a serious incident which resulted in traction current being switched on in the possession worksite. A Formal Investigation Report (FIR) is underway.

Track Partnership

Overall during Quarter four, the Track Partnership delivered 2.5 kilometres of ballasted track renewal (this was 600 metres less than initially planned, predominately due to industrial action undertaken by Tube Lines staff in January, which caused the cancellation of required engineering trains). The Track Partnership also successfully achieved 2.6 kilometres of drainage improvement works (100 metres more than initially planned).

Rail and Underground Capital Programmes

Track Delivery Unit

The Track Delivery Unit (TDU) achieved 746 metres of Class 1 deep tube renewals (this is 80 metres less than initially planned, predominately due to snow and operational imperative to run sleet trains).

In quarter four TDU completed 46 kilometres of rail grinding with no service impacts due to TDU's strict attention to preventing grease contamination of the rail head.

TDU also carried out the installation of 154 kilometres of location coding system (LCS) plates across various locations throughout the network.

Quarter four also saw TDU complete a full year without a Lost Time Injury (LTI) a testament to all aspects of their safety management regime.

Rail and Underground Capital Programmes

Civils (BCV/SSR)

Spend to end Q4 2012/13 £m	EFC £m
29.9	29.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Practical Completion: Northwood – Northwood Hills	26-May-12	25-May-12	Complete
Practical Completion: Wimbledon Park to Southfields	26-May-12	25-May-12	Complete
Detailed Design Complete: Harrow-on-the-Hill to North Harrow	21-Jul-12	21-Jul-12	Complete
Start on Site: Northwood to Pinner	10-Nov-12	09-Nov-12	Complete
Practical Completion: Strengthening three Bridges in the Bayswater Area	02-Feb-13	01-Feb-13	Complete
Practical Completion: Bridge Impact Protection - Perivale Area	31-Mar-13	01-Mar-13	Complete

The 2012/13 Civils Programme delivery is on plan.

During Quarter four the following activities were successfully undertaken;

- Long timber track supports across subway (MR99) at Chorleywood and at Chalfont and Latimer (MR107) with precast concrete units. The track was re-laid removing redundant expansion switches and the asset successfully handed back into Asset Performance Directorate with significantly reduced cost of future maintenance.
- Over 850m of embankments along the Metropolitan Line and Central Line were stabilised by the installation of King Post Walls. These installations were carried out over possession weekends at Chorleywood to Chalfont and Latimer (Metropolitan Line) and Woodford to Buckhurst Hill (Central Line).
- Two rail bridges (D81A/D81B) at Ravenscourt Park were replaced over two weekend possessions in extreme weather conditions. Each replacement was successfully completed with no incidents or injuries and with no delay to the start of service. The new bridges will reduce maintenance costs and are an example of focussed value engineering by the Civils Permanent Way team.
- Successful installation of a bridge protection beam at Perivale station (R17) has reduced the risk of direct bridge strike damage by over-height traffic. This delivered a TfL PAM.

Rail and Underground Capital Programmes

- The embankment between Northwood Hills to Pinner (EM1) has been regraded and this has improved the safety factor of the embankment and track.
- Pumps Renewals programme for 2012/2013 has been successfully completed with all 14 sites now having new pumps to manage floods effectively within LUL properties.
- Bridges and Structures team has undertaken asset strengthening projects of tunnel girders around the Bayswater Area at G12, D89 and D88 and these have all been achieved to practical completion and have reduced the risk to the railway.

Rail and Underground Capital Programmes

Deep Tube Programme

Spend to end Q4 2012/13 £m	EFC £m
9.6	*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Proof of Concept Study for Saloon Air-Cooling in a Deep Tube Train Application - Complete	26-Jul-13	28-Jun-13	●
Commencement of the First Obstacle Detection Trial	19-Aug-13	22-Jul-13	●
Programme Feasibility Complete (Programme Gate B)	22-Oct-13	25-Sep-13	●
Delivery of prototype for a low energy, higher capacity train for Piccadilly and Bakerloo lines (Annex B: 2015)	29-Dec-15	09-Dec-15	●

Deep Tube Programme (DTP) will deliver new trains and railway control systems to the Bakerloo, Piccadilly, Waterloo & City and Central lines to replace life-expired assets to realise capacity and journey time benefits at the lowest possible whole-life cost. This will be achieved through the introduction of more efficient train system solutions which will allow line capacity enhancements to be delivered without a major increase in energy consumption and tunnel temperatures, thereby reducing the need for capital intensive tunnel and station cooling infrastructure.

The DTP will incorporate lessons learnt from Jubilee and Victoria line upgrades, specifically that many of the final cost and performance characteristics of an upgrade and subsequent operation and maintenance are determined by decisions / constraints made early in the programme lifecycle. Furthermore, understanding the interaction between different parts of the overall operation of the system is critical to achieving the high levels of performance and reliability required for automation.

The feasibility project is progressing to schedule. Achievements in the fourth quarter include:

The air cooling design is progressing as planned (90 per cent complete milestone) as is stage three of the rolling stock industrial design study. All Piccadilly line platform surveys required for feasibility were completed.

The benchmarking strategy for DTP has been produced from which the plan is being developed.

The total programme EFC will be confirmed once the single option selection has been made.

Rail and Underground Capital Programmes

Lifts and Escalators (JNP)

Spend to end Q4 2012/13 £m	EFC £m
17.7	17.7

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Highgate E1 - bring into use	04-Mar-13	15-Feb-13	Complete
Leicester Square E4 - bring into use	04-Mar-13	29-Jan-13	Complete
Canary Wharf E8 - bring into use	04-Mar-13	02-Feb-13	Complete
Clapham South E1 - bring into use	04-Mar-13	22-Feb-13	Complete
Waterloo E21 - bring into use	30-Mar-13	18-Mar-13	Complete
Bring Into Use (BIU) Canary Wharf escalator E4	08-May-13	24-Apr-13	●
Bring Into Use (BIU) Westminster escalator E14	08-May-13	24-Apr-13	●

Escalators at Canning Town, Canary Wharf, Southwark, Waterloo, Highgate, Clapham South, Westminster, Leicester Square and lifts at Westminster and Green Park were brought into service on schedule.

Rail and Underground Capital Programmes

Station Condition Renewal (JNP)

Spend to end Q4 2012/13 £m	EFC £m
9.4	16.1

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Heathrow Terminal 1,2,3 - Enhanced Refurbishment Delivery Into Service	19-Dec-12	19-Apr-13	■
Bring Into Use (BIU) Northfields Train Crew Accommodation	10-May-13	10-May-13	●
End of RVAR programme	31-Mar-14	30-Oct-13	●

RVAR (Rail Vehicle Accessibility Regulations)

Morden Station platform humps have been installed in possessions as planned. Discussions continue with principal parties from LU/JNP Operations to review three stations (Woodside Park, Wembley Park and Finchley Road) that require track raising and feasibility studies.

Heathrow Terminals 1, 2 & 3

The Step Free Access (SFA) project works have all been completed, which allowed the Station Modernisation Enhancement Project (SMEP) works to enter the final phase of works. All SMEP works have been complete and the project is now in the snagging phase which consists of mainly electrical works.

Rail and Underground Capital Programmes

Track (JNP)

Spend to end Q4 2012/13 £m	EFC £m
31.7	31.7

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Completion of 1200m of Tube Reconditioning	31-Mar-13	07-Feb-13	Complete
Completion of 4000m of re-rail	31-Mar-13	31-Mar-13	Complete
Complete 1000m of Track life extension (half year)	01-Oct-13	01-Oct-13	●
Complete 750m of Track reconditioning (half year)	01-Oct-13	01-Oct-13	●
Complete 3 no Ballast Track Replacement (BTR)	12-Oct-13	14-Sep-13	●
Complete 1750m of Track reconditioning (full year)	31-Mar-14	31-Mar-14	●
Complete 3600m of Track life extension (full year)	31-Mar-14	31-Mar-14	●

Tube section works

There have been three weekend possessions between Morden to Colliers Wood, Hendon to Colindale and Borough which saw all planned deliverables being achieved or exceeded.

Ballast Track Replacement (BTR) works

In January there was a combined JNP Projects / Maintenance managed closure on the Metropolitan and Jubilee lines. Within the closures, there were a total of six worksites that achieved significant track improvements despite the snowy and cold conditions.

In March there were two weekend closures between Neasden and Wembley Park which delivered the full scope of works of 860 metres. During the March closures there was an unannounced visit by the Office of Rail Regulator (ORR) and initial feedback has been very positive.

Year-end achievements include 868 metres of track replacement, 1,801 metres of tube reconditioning, 620 metres of pit reconditioning, 4,114 metres of life extension and 12,501 metres of scrap rail removal.

Rail and Underground Capital Programmes

A weekend closure between Neasden and Wembley Park over-ran which resulted in a significant delay to the Monday morning Jubilee and Metropolitan line services. Management changes have been made and a Formal Investigation Report (FIR) is underway.

Rail and Underground Capital Programmes

Civils (JNP)

Spend to end Q4 2012/13 £m	EFC £m
14.4	16.1

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Completion of 740m of Earth Structure Renewal	27-Mar-13	27-Mar-13	Complete
Completion of 4000m of Drainage intervention	31-Mar-13	31-Mar-13	Complete
Complete painting works on 20 no bridges	30-Apr-13	30-Apr-13	●
Complete painting works on 26 no bridges	31-Jul-13	31-Jul-13	●
Complete painting works on 29 no bridges	14-Sep-13	14-Sep-13	●
Start On Site (SOS) Structural Bolting to Vent Shaft openings (JNP)	30-Sep-13	02-Sep-13	●
Complete 1500m of UV Lining (Drainage)	05-Oct-13	07-Sep-13	●

Canons Park

The Southbound embankment has been fully demobilised with all plant now removed from the site. The Northbound compound area is now fully operational. Both the temporary and enabling works have commenced on the northbound embankment with the construction of the access road and the pole and ply retaining wall.

Bridges & Structures

Painting works on Bridge NT10 (Brent Cross/ Golders Green) were successfully completed on the trackside and painting commenced on Bridge D46 (Boston Manor/Osterley).

Drainage

The 2012/13 target of 4,000 metres ultraviolet lining (UV) and drainage renewals has been completed.

Rail and Underground Capital Programmes

Jubilee Line Upgrade

Spend to end Q4 2012/13 £m	EFC £m
34.4	50.6

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Complete Axle Counter Block modification	03-Nov-13	19-Jun-13	●
Decommissioning and removal of old assets	30-Jun-14	30-Jun-14	●

The software upgrade (version 2.44.20) SCS has recommenced and the next upgrade (version 2.44.21) VOBC testing was completed during engineering hours on 25 February. The test output data is now being analysed by Thales and subject to satisfactory results a schedule will be developed for the rollout across the fleet.

Rail and Underground Capital Programmes

Northern Line Upgrade

Spend to end Q4 2012/13 £m	EFC £m
180.5	392.2

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Installation Complete; NMA4 (Old Street/Euston to Oval)	23-Nov-12	09-Dec-12	Complete
106 Trains ready for Revenue ATO Service	03-Dec-12	29-Nov-12	Complete
Installation Complete; NMA3 (Archway/Chalk Farm to Angel/Euston)	04-Jan-13	04-Jan-13	Complete
Ready for Revenue NMA1 (High Barnet to West Finchley)	15-Oct-13	17-Feb-13	Complete
Ready for Revenue NMA3 (Archway/Chalk Farm to Angel/Euston)	30-Jun-14	11-Nov-13	●
Northern line upgrade complete, delivering 20% increase in capacity (Annex B: 2014)	31-Dec-14	31-Dec-14	●

Sunday 17 February was an historic day for the Northern line. The line between High Barnet and West Finchley became the first to switch over to transmission-based train control (TBTC) automatic signalling, with the first train in 'revenue service' (carrying passengers) at 12:08. Since going into revenue service reliability of the system / assets has been good and is better than the reliability predictions. The good reliability levels have demonstrated that the system is robust and will now remain permanently in revenue service.

Rail and Underground Capital Programmes

Jubilee & Northern Line Mid Life Refurbishment

Spend to end Q4 2012/13 £m	EFC £m
1.9	67.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Northern Line Mid-life refurbishments complete	31-Dec-14	31-Dec-14	●
Jubilee Line Mid-life refurbishments complete	5-Feb-17	5-Feb-17	●

This Project will deliver the Mid Life Refurbishment of the 63 Trains on the Jubilee line and 106 Trains on the Northern line. The Mid-life refurbishment is required to preserve fleet saloon condition and to meet residual life, performance (ambience) and Rail Vehicle Access Regulations (RVAR) 2010 requirements.

The works need to be completed before the RVAR legislation comes into force on 1st January 2020. The RVAR legislation sets standards which are designed to improve accessibility for disabled persons such as provision of wheel chair spaces, emergency help facilities and colour contrast of hand rails inside vehicles.

Train No.1 is on target to complete 27 April, which is three days ahead of the planned date. Also, work has now commenced on Train No.2.

Rail and Underground Capital Programmes

Northern Line Extension

Spend to end Q4 2012/13 £m	EFC £m
4.3	5.3*

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Complete Royal Institute of British Architects (RIBA) stage "C" design	30-Apr-13	30-Apr-13	●
Define Programme Management methodology	30-Apr-13	30-Apr-13	●
Issue Invitation to Tender (ITT) for Innovation Contractor Engagement contract	30-Sep-13	30-Sep-13	●
Define Delivery Model for non-civils works	20-Dec-13	20-Dec-13	●

The OJEU notice for the design and build of the main civil works was issued and there has been a good response from tier one suppliers expressing an interest. The Market Sounding report has indicated an appetite for contractor engagement in the tender process, despite there being several other large projects going to the market at the same time. Design drawings are due to be submitted in April 2013 to enable a gap analysis to be undertaken.

The Transport Work Act Order (TWAo) has been progressed and is due for submission in April 2013.

*EFC reflects only the current authorised stages of work

Rail and Underground Capital Programmes

East London Line Phase 2b

Spend to end Q4 2012/13 £m	EFC £m
62.9	64.5

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Complete integration testing	31-Jul-12	24-Jun-12	Complete
Commencement of trial operations	30-Nov-12	25-Jun-12	Complete
Commence passenger services	09-Dec-12	09-Dec-12	Complete

East London Line (ELL) Phase 2b has provided an additional four trains per hour on the core East London line. These trains run to Clapham Junction via a new chord that leaves the ELL Phase 1 route to the south of Surrey Quays and joins the South London line to the north of Queens Road (Peckham). This new track has enabled a new route, between Highbury and Islington and Clapham Junction, and provided the final link to make London Overground a fully orbital railway.

Surface

Barclays Cycle Hire Scheme

Spend to end Q4 2012/13 £m	EFC £m
112.9	152.7

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Phase 2: Go Live #4 - Expansion area launch	02-Mar-12	02-Mar-12	Complete
Phase 2: Construction complete	30-Apr-12	30-Apr-12	Complete
Phase 2: JCB/Amex card acceptance available	21-Sep-12	13-Jul-12	Complete
CHEI: Start of planning consents submissions	12-Nov-12	01-Nov-12	Complete
Phase 2: Start of Phase 2 Close (Gate 2)	28-Jan-13	20-Jan-14	■
CHEI: Contract variation signed	07-Mar-13	15-May-13	▲
Phase 2: End of Phase 2 Close (Gate E)	30-Apr-13	30-Apr-14	■

The Barclays Cycle Hire scheme launched successfully to registered members on 30 July 2010 and was opened up to all users on 3 December 2010. The scheme costs annual members less than 25 pence per day, as the vast majority of their trips are less than 30 minutes. This is a low-cost and convenient alternative for many travellers.

Phase 1 was completed on 4 July 2012.

Phase 2 – Geographic expansion launched on time in March 2012, increasing the number of bicycles to 8,333. Major system improvements are being delivered in stages; the final stage will now be delivered by the end of 2013, improving customer usability and billing. As a result, the two project closure milestones have been reforecast for early 2014.

Cycle Hire Expansion and Intensification (CHEI) – takes Cycle Hire west and south-west into areas of high demand including parts of Wandsworth, Hammersmith and Fulham, and additional areas of Lambeth, and Kensington and Chelsea. This will increase the number of bicycles to around 11,000 across the whole scheme, supported by at least an additional 5,000 docking points. The scheme is due to launch in December 2013 with full completion by spring 2014.

The planning submission programme started ahead of schedule; the contract variation, originally forecast to be signed in March 2013, is now expected to be signed in May 2013 to enable further work on the operational model to be undertaken. This additional time will not impact the launch date of the scheme.

Surface

Cycle Super Highways

Spend to end Q4 2012/13 £m	EFC £m
26.8	113.6

Programme level	Current Plan Date	Actual/Forecast Date	RAG
CS2 Extension - preliminary design complete	31-Jan-13	07-Jan-13	Complete
CS2 Extension - detailed design complete	31-Mar-13	30-Apr-13	▲
Route 5 construction started	15-Jun-13	31-May-13	●
CS2 Extension - construction complete	30-Aug-13	31-Oct-13	▲

The Cycle Super Highways project will deliver ten radial cycle commuter routes from outer to central London by 2015. The first two routes of the programme (Route 2 and Route 8) were opened in July 2011, following completion of the Cycle Superhighways Pilot Routes project in July 2010.

The CS2 extension detailed design is now underway, in accordance with the timeline established following remobilisation following the junction review process, and the route is now forecast to be implemented in October 2013. The first phase of delivery of Route 5 (Oval to New Cross) is scheduled to begin within the next quarter.

The remainder of the forward programme is currently under review following the publication of the Mayor's Cycling Vision, in order to align with other components of the Cycling Portfolio and incorporate feedback from the Cycling Commissioner. A revised programme will be finalised during the next quarter.

Surface

New Investment SCOOT

Spend to end Q4 2012/13 £m	EFC £m
16.6	17.2

Programme level	Current Plan Date	Actual/Forecast Date	RAG
240 Sites commissioned onto UTC (FY 11/12) 413 Cumulative	30-May-12	30-May-12	Complete
115 UTC Design Briefs complete (FY 12/13)	31-Dec-12	08-Dec-12	Complete
115 Sites civil engineering complete (FY 12/13)	01-Mar-13	01-Mar-13	Complete
115 Sites SCOOT Loops installed (FY 12/13)	18-Mar-13	18-Mar-13	Complete
115 sites commissioned onto UTC (FY 12/13) 528 cumulative	31-Mar-13	31-Mar-13	Complete
115 sites infrastructure installed (FY 12/13)	31-Mar-13	31-Mar-13	Complete
Final signal technology enabling completed (Annex B: 2015)	31-Jul-13	31-Jul-13	●

The SCOOT programme will upgrade traffic signal technology to help meet the Mayoral objective of smoothing traffic flow. Costs shown are for the New SCOOT Investment project, which will deliver 528 sites of a planned 1,000 sites. The remaining sites are funded and delivered by business-as-usual activities across Surface Transport.

Under the New SCOOT Investment project, 240 sites were planned to be installed in the 2011/12 financial year, bringing the total to 413 sites of the 528 the project will contribute towards the planned 1,000 total. These sites were delivered by the end of May 2012.

The remaining 115 sites have been installed in the 2012/13 financial year, taking the total to the full 1,000 sites. At the end of the fourth quarter, 115 design briefs had been completed, 115 detailed designs completed, 115 civil engineering sites completed, 115 SCOOT loops installed and 115 sites commissioned.

Surface

Hammersmith Flyover Phase 2

Spend to end Q4 2012/13 £m	EFC £m
1.0	77.7

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Phase 2: Corp Gate A project commencement approved	31-May-12	06-Jun-12	Complete
Installation of strengthening measures at critical piers	30-Jun-12	28-May-12	Complete
Award of framework agreement or contract	31-Mar-13	28-Mar-13	Complete
Approval of concept design (design stage 2)	28-Jun-13	28-Jun-13	●
Approval of detailed design (design stage 3)	03-Sep-13	03-Sep-13	●
Possession of site	04-Nov-13	04-Nov-13	●
Construction complete	21-Apr-15	21-Apr-15	●

The Hammersmith Flyover project is part of a portfolio investment in eight specific road tunnels and structures on the Transport for London Road Network (TLRN) that have been identified as requiring capital investment in order to improve road network safety, network resilience and stability, and reduce the whole-life costs.

The first phase of works, addressing immediate risks to the safety of the structure, was completed in May 2012. The second phase of works, developing and implementing a long-term strengthening solution, commenced shortly thereafter and pre-design activities have been progressed following the appointment of the designer, Ramboll, in October 2012.

Following successful completion of the tender process and evaluation results in March 2013 the contractor, Costain, has been awarded the Framework Agreement for Early Contractor Involvement. The contractor is engaged through a call-off contract and will work with the designer to progress concept and detailed design phases to allow construction works to commence in October 2013.

Surface

TLRN Capital Renewal Programme

Spend to end Q4 2012/13 £m	EFC £m
48.5	48.5

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Delivery of the 2012/13 programme of works	31-Mar-13	31-Mar-13	●

The annual budget for the Transport for London Road Network (TLRN) Capital Renewals Programme is based on long-term asset investment modelling and an objective risk-based assessment of the renewals required to deliver a safe and reliable network.

Capital Renewals is a rolling programme of schemes that maintain the physical infrastructure of the TLRN, including carriageways, footways, structures, tunnels, lighting, drainage, green estate and street furniture. The programme consists of schemes that lengthen the useful life of an asset, either by replacing it with a new one, or by some other intervention such as reconstruction or refurbishment.

Schemes are identified, prioritised and programmed (assigned to an appropriate year) using a risk-based approach. An additional 10 per cent of schemes were identified out of the forward programme to act as reserves. The reserves create flexibility that caters for unplanned scheme deferrals, caused by factors such as severe winter weather, refusal of permits on congestion grounds, and utility works.

Carriageway resurfacing

By the end of the quarter, 537,940 square metres of carriageway was resurfaced against a forecast output of 450,000 square metres for the year (120% of annual target achieved).

Footways resurfacing

By the end of the quarter, 57,013 square metres of footway was resurfaced against a forecast output of 44,000 square metres for the year (130% of annual target achieved).

Lighting column replacements

By the end of the quarter, 1,354 lighting columns were replaced against a forecast output of 1,100 for the year (123 per cent of annual target achieved).

Carriageway targets were exceeded in 2012/13 by bringing forward circa £2m from 2013/14. Also, all targets were exceeded because a higher than normal proportion of works were delivered in outer London. Some works in inner London were deferred to accommodate the 2012 Games; this enabled some works in outer London to be brought forward from 2013/14. The lower unit rates in outer London, typically due to material types and traffic management, enabled more to be delivered for the same investment.

Surface

London Road User Charging and Traffic Enforcement Notice Processing Contract re-let Project

Spend to end Q4 2012/13 £m	EFC £m
1.3	99.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Invitation to Participate issued	18-Feb-13	18-Feb-13	Complete
Invitation to Submit issued	20-Aug-13	20-Aug-13	●
Evaluation of ITS bids complete	23-Oct-13	23-Oct-13	●
Approval to award contract	19-Nov-13	19-Nov-13	●
Traffic Enforcement Notice Processing go-live	21-Jun-15	21-Jun-15	●
Business Operations service go-live	01-Nov-15	01-Nov-15	●
Enforcement Operations service go-live	01-Nov-15	01-Nov-15	●

The upcoming expiry of both the London Road User Charging (LRUC) and Traffic Enforcement Notice Processing (TENP) contracts provides TfL with an opportunity to maximise efficiency by grouping common activities whilst enhancing customer satisfaction. These contracts contribute to smoothing traffic flows and improving bus journey time reliability on the Transport for London Road Network (TLRN). LRUC includes the central London Congestion Charging and Greater London Low Emission Zone and TENP provides the notice processing services for decriminalised traffic offences on the TLRN.

This Project will be delivered by undertaking a 12 month extension to the current LRUC contract with IBM from 1 November 2014, to align the LRUC and TENP contracts. A Procurement process has commenced with the objective of the new services having a staggered go-live in 2015, with the TENP coming on line in June 2015 and the LRUC elements in November 2015.

Currently, all milestones remain on track and the Invitation to Participate (ITP) Phase is currently underway. Once the Competitive Dialogue Phase is completed with successful Bidders from the ITP, the Invitation to Submit (ITS) will be issued to those organisations still involved in the process in August 2013.

Corporate

Integrated Transport Smartcard Organisation

Spend to end Q4 2012/13 £m	EFC £m
56.7	65.9

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Head Office Processing System (HOPS) Operational	06-Sep-12	18-Dec-12	Complete
ITSO on Prestige (IoP+) Stage 2 certification	18-Dec-12	28-Jan-13	Complete
Reader hardware rollout complete	30-Apr-13	30-Aug-13	■
ITSO on Prestige (IoP+) Stage 3 certification	30-Sep-13	29-Nov-13	▲
ITSO on Prestige Project Complete	24-Dec-13	24-Dec-13	●

ITSO (Integrated Transport Smartcard Organisation) is the smartcard specification mandated by the Department for Transport (DfT) for rail franchises and for the national bus concessionary scheme. Enabling the acceptance of ITSO specified tickets requires changes to TfL's ticketing systems, including a card reader capable of processing both Oyster and ITSO tickets, establishment of a Head Office Processing System, new and upgraded communications links and other system changes. The project is responsible for the technical changes required to support ITSO acceptance on the TfL controlled reader estate but a live operational system is dependent on Train Operating Companies being capable of integrating with the system and appropriate commercial agreements. The project is being funded by the DfT under an agreement with TfL dated 28 May 2009.

The deployment of the reader hardware and the Ethernet communications to support the new software continues against the revised delivery dates. The reader deployment was delayed due to performance stability issues in the initial vanguard. These issues have been rectified and the rollout is now progressing to target against the revised completion date. There is no impact to operational plans or project completion dates due to this change.

The TfL HOPS has been deployed and is functioning in the live environment. Connection to the Southern HOPS has been successfully completed.

Development of the software continues in a phased manner. Software for Stage 2 received ITSO certification in February 2013. This software has been deployed in a vanguard station and the first ITSO transaction on the TfL controlled estate has been successfully received (these are not customer transactions). Stage 3 software is expected to receive certification in

Corporate

November 2013. The project team continues to discuss with the DfT the Stored Travel Rights (STR) proposition which has an impact on the Stage 3 software scope. Assuming that STR is not progressed, the project remains on track to complete software development and DfT acceptance in December 2013. TfL are planning to deploy this software during the first half of 2014 during an appropriate launch window, this is outside the scope of the ITSO project.

The project has engaged with other parties and the DfT to discuss deployment options across the rail industry. Central to delivery of live operational schemes is agreement of the Commercial Agreements that are being progressed by Association of Train Operating Companies outside the scope of this project.

Corporate

Future Ticketing Project

Spend to end Q4 2012/13 £m	EFC £m
38.8	68.3

Programme level	Current Plan Date	Actual/Forecast Date	RAG
Phase 1 – initial bus launch to be implemented, payment of the bus single fare by contactless bank card	31-May-12	13-Dec-12	Complete
Phase 2 – start of integration of TfL and 3rd party back office systems	14-Jun-13	14-Jun-13	●
Phase 2 – introduction of contactless bank card acceptance for multi-modal daily travel, with daily and 7 day capping (Annex B: 2014)	31-Jan-14	15-Nov-13	●

The Future Ticketing Programme introduces the acceptance of contactless bank cards and compatible devices as payment for travel, improving customer convenience and enabling cost savings for TfL through reduced card issuance and commission costs.

Phase 1, acceptance of contactless payment cards for single journeys on TfL bus services, was successfully launched on 13 December 2012.

Phase 2 – TfL’s software development for launch capability has been completed and following internal testing, has been delivered to TfL’s contractor for integration with the remaining components. The project remains on schedule to complete technical delivery in November 2013, with roll out planned for November 2013 – January 2014.