



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

MUDFA Sub Committee Report Papers For Meeting 7 May 2008

Distribution

Willie Gallagher
Tom Condie
Steven Bell
Susan Clark
Graeme Barclay
Mike Connelly
Colin McLauchlan

Stewart McGarrity
Duncan Fraser
Tom Clark
Keith Rimmer
John White
Bill Campbell
Bill Nicholls

Alan Dolan
Steven Reynolds
Dave Smith
Steve Hudson



Agenda

Sub-Committee Meeting

to be held at Isambard Kingdom Meeting Room, Citypoint II

on Wednesday 7 May 2008 at 2pm

1. Actions from previous minutes.

2. Construction Director's Report

- Executive Summary
- Operations
- Stakeholders
- Communications
- Initiatives
- Key Issues/Blockers

3. Appendices

- Appendix 1: Leith Walk Clearance Summary Sheet
- Appendix 2: Performance Measures
- Appendix 3: Traffic Modelling
- Appendix 4: Communications Report
- Appendix 5: Risk Register

4. AOB



MUDFA Sub-Committee Meeting

AGENDA ITEM 1

Actions from Previous Minutes

tie Limited

Minutes of Sub-Committee Board Meeting

Date: 9 April 2008

Time: 14.00

Venue: Kingdom Meeting Room, CityPoint II

In Attendance

Willie Gallagher	WG
Graeme Barclay	GB
Stewart McGarrity	SM
Stan Honeyman	SH
Tom Condie	TC
Tom Clark	TCL
Mike Connelly	MC
Steve Gorry	SG
Andy Malkin	AM
Dave Smith	DS
Keith Rimmer	KR
John White	JW
Alan Dolan	AD

Apologies

Steven Bell	SB
Susan Clark	SC
Colin McLauchlan	CM

Circulation As Above
MUDFA Team

	ACTIONS	ACTION BY	DATE DUE
1.1	[1.2] Worksites; issue of reports being made of worksites with no-one working on them; would it be possible to close some of these off? WG to discuss with Dave Smith.	WG/GB	COMPLETE
1.2	Leith Walk As above issue with worksites with no-one working on them. The Tram Helpers are having difficulty in getting accurate/consistent info of what the status of the worksites is. GB/AM/DS to sit down today and discuss how this can be remedied.	GB/AM/DS	COMPLETE
1.3	Newhaven to Ocean Terminal Issue with retaining wall (Forth Ports) Ad has asked for a closure on this. SC/AD to instruct SDS to use the drawings. This must be resolved.	SC/AD	07.05.08

1.4	<p>Picardy Place New commencement date for Picardy Place to be discussed. CEC agree that they cannot see any reason why this couldn't be put back. Tie and AMIS Planners are currently looking at this and will come back with proposal next week. GB/AM/DS then to review and pass on this information to CEC etc.</p>	GB/AM	COMPLETE
1.5	<p>Phase 3; The Mound Works due to commence 7 July 2008. Embargo for festival starts at the beginning of August. If we are not going to complete by the end of July then it may be better to bank this work and commence after the festival.</p> <p>GB/AM to look at this in detail and come back with recommendation at next month's meeting.</p>	GB/AM	COMPLETE
1.6	<p>Haymarket (Atholl Crescent) Issue with walls in this area (listed). We need to ascertain whether or not we can remove the wall or preferably work around this. TCL to look at this in detail and report back to MUDFA.</p>	TCL	07.05.08
1.7	<p>Haymarket Junction TM Issues. We are looking at relief from embargo for this section. Can we work on through August?</p> <p>TCL thinks we need to submit a report to the Council to request this. Can this go to the Tram Sub-Committee board within the Council to make a decision? What powers does the Tram Sub-Committee have?</p> <p>TCL to enquire within the Council. Full proposal required for the meeting next month.</p>	TCL /KR	07.05.08
1.8	<p>Section 5 There will be an issue if BAA do not finish their works on time. BAA have already stated that they may have to put these works back. GB to find out full extent of this issue and report to WG.</p>	GB	07.05.08
1.9	<p>Recovery Plan-Resources Reinstatement squads have been increased and resources on Manhole Chambers have also been increased.</p> <p>GB/Am/DS to meet next week and look at agreed resources/recovery programme. Report back to WG.</p>	GB/AM/DS	COMPLETE

1.10	Lothian Buses require a clear succinct summary programme which shows start dates and major events. GB to instruct MUDFA Planner to put down table of key dates for phasing of TM in all sections and issue to Lothian Buses.	GB	07.05.08
1.11	Leith Walk Cable Tunnel We need to ascertain ownership of the tunnel. The real issue is with the integrity of the tunnel rather than access but we do need to know who owns this in order to progress these works.	TCL	07.05.08
1.12	Street Furniture There is an issue with lamp columns/traffic light poles. If these are moved by tie and are found by CEC to be sub-standard then CEC request that tie replace these. Tie not in agreement with this. TCL has discussed this with the Council and is awaiting a response. TCL to update at next meeting.	TCL	07.05.08



MUDFA Sub-Committee Meeting

AGENDA ITEM 2

Construction Director's Report

Edinburgh TRAM Project

Paper to : Utility Sub-Committee

Subject : Construction Director's Report

Date : 7 May 2008

Executive Summary

High Level View

Progress

		Period 1 (29.03.08 to 25.04.08)			Overall Performance to Date		
		PLANNED	ACTUAL	Variance	PLANNED	ACTUAL	Variance
TOTAL	Metres	3939	2756	-1183	16051	12421	-3630
	Chambers	16	7	-9	120	65	-55
BT/Comm	Metres	1626	1099	-527	7016	5383	-1633
SGN	Metres	473	587	114	1314	1189	-125
Scot W	Metres	1619	1030	-589	6019	4724	-1295
Scot P	Metres	221	40	-181	1388	811	-577
Forth Ports	Metres	0	0	0	314	314	0
Gogar Comm	Metres	0	0	0	0	0	0
Gogar Scot P	Metres	0	0	0	0	0	0
Gogar Scot W	Metres	0	0	0	0	0	0

Safety

Subsequent to the first reportable accident (RIDDOR) on 2 April 2008, initially reported in last periods report, a formal review by the tie Project Director, MUDFA Construction Director and AMIS Project Director was carried out on 7 April 2008.

Initial findings would indicate that no malpractice was evident and the operatives were working diligently within the excavation. However, several actions have been taken to ensure lessons are learned from the incident:-

- Requirements for improved assessment of excavation support methods
- Assessment of additional training and competency of operatives/supervision
- Implementation of Work Face Risk Assessment procedure

Contact was made with HSE 3 April 2008, and initial indications are that they are satisfied with both the manner the incident has been dealt with and the immediate actions taken after the incident. Confirmation of HSE stance will follow issue of the final report from AMIS received 2 May 2008.

General

- 1 RIDDOR reportable incident
- 7 no utility damages
- 2 no near misses
- 1 no environmental incident

The project to date AFR is 1.66

The MUDFA contractor project to date AFR is 0.46 and 2.56 for the period.

Period Progress

Works progressing in 7 areas :

- Constitution Street (1A)
- Leith Walk (1B)
- St Andrews Street (1C)
- Princes Street (1C)
- Shandwick Place (1D)
- South Gyle (5B)
- Edinburgh Park (5C)

Progression of service diversions in the period has shown a downturn in output from previous period; 70% achieved in the period. 77% achieved in total to date. Cumulative effect on the sections is approximately 7 weeks. Overall effect on the critical path remains at 2 weeks, but implementation of revised recovery programme actions required urgently.

Key areas of delay are:-

- Insufficient resource levels – operative and supervisory to match requirements of rev 06 programme.
- Increased temporary diversion provision (primarily on Leith Walk)
- Delay in outages from SW affecting programmed diversions.
- Chamber output performance
- Additional demands/constraints imposed by TM
- Additional constraint imposed by archaeological findings in Constitution Street.

Rescheduling of key areas has been carried out to address resource peak demand and critical interface areas with Infraco (prioritising Infraco early start areas).

Specific critical areas identified are Foot of the Walk, Constitution Street, St Andrew's Square and Gogar Depot. These areas have been prioritised in terms of resource

management to ensure programme requirements are adhered to. Additionally the sections at London Road junction and the Mound/Hanover Street junction have been deferred; London Road to assess impact of St James Centre development on Picardy Place utility diversions to avoid potentially abortive diversionary work.

Leith Walk operations have been reviewed to ensure sectional completion and subsequent release into the public domain is achieved at the earliest possible date.

See Appendix 1 – Leith Walk Clearance Summary Sheet

The Mound will now commence September 2008, as opposed to 7 July 2008, as the complexity and extent of the works are such that no benefit would be achieved by commencing 4 weeks in advance of the August embargo. Completion of the Mound works can still be achieved in advance of Infracore commencement in this area. Commencement of the 800mm diameter watermain at Gogar within w/c 5 May 2008, critical to Infracore start at the depot on the 2 June 2008.

Review of recovery programme and re-phasing of several sections has led to the development of the latest agreed MUDFA Construction Programme revision 07. Recovery programme has shown a reduction in peak resource demand of 25%, down to 185 no personnel (increase of 45no on present level).

Peak demand is within the months of May through to July. Output demand indicates a required increase of 40% in present average output of 64%. This being achieved, completion date (excluding the Mound) would be maintained as mid December 2008. Continual monitoring of output essential to ensure recovery plan implementation is successful.

Rescheduling of the works in line with the Rev 07 programme will result in elements of the city centre works (the Mound area) extending into the first quarter of 2009.

1.0 Section 1A

Design

1-5

Drawings 1-5: Design still in development. **tie** and SDS working with Scottish Power and SGN to minimise expenditure.

6-12

6-10: Issued for approval but **tie** believe some savings can be made. Significant expenditure on electrical diversions (SP & FP). New proposals have been outlined; these will be verified prior to seeking approval.

Target commencement: 12 May 2008

11-12: On hold awaiting information regarding bridge construction with regard to temporary diversion proposals that will allow early commencement of Infracore.

13-15

13: Works complete based on IFC issued in June 2007.

14-15: SDS regard these drawings as a revision to completed design. As such they will only begin work on them when all other designs have been completed.

Closure of Constitution Street and associated Traffic Management at the Foot of the Walk commenced as programmed.

Actual Progress

Construction BTO chamber commenced w/c 17 March 2008 in revised location (footpath as opposed to middle of junction). Following investigation into more appropriate location, mitigating additional diversionary, enabling and TM requirements.

Outside of LOD works

Scottish Power – Works commenced Monday 5 May 2008. Work start date delayed due to lack of available SP resources. Non critical to section programme.

SGN works completed.

SW – Design progressed and finalisation of contractual agreement with SW Contractor ongoing; currently programmed for beginning June 2008.

All CDM responsibilities clarified.

Closure of Constitution Street implemented on 30 March 2008.

Actions

- Continuing assessment of all resources (AMIS and SUC) to ensure there is no further slippage.

Section 1A 16-21 (Constitution Street)

Traffic Management in place between Duke Street and Laurie Street (Section A); Coatfield Lane and Queen Charlotte Street (Section C); and Mitchell Street and Baltic Street (Section E) to accommodate MUDFA works.

Progress

Progress during period against work programme: 70%

- Section A: Works on programme in this section of Constitution Street
- Section C: Works one and a half weeks behind programme in this section of Constitution Street
- Section E – works on programme in this section of Constitution Street

Highlights

- Installation of Constitution Street Traffic Management in two hit strategy
- Discovery of bones in excavation adjacent to South Leith Parish Church. Bones to be carbon dated. Future works to be progressed in line with existing Archaeological arrangements
- Outside of LOD works
- SGN – Works complete
- Commencement of Traffic Management design process for Constitution Street/Baltic Street junction

Key Issues/Blockers

Programme adherence in Section C of Constitution Street is behind works programme due to erroneous assumption that MUDFA works would be carried out on both sides of the street in this section simultaneously. The need to maintain emergency service and pedestrian access has prevented this.

Action – Revised works programme to be produced by AMIS during w/c 21 April 2008. Target for acceptance of revised works programme; w/c 5 May 2008 in line with Rev 07 programme.

Programme Lookahead

- Outside of LOD works
- Scottish Power – Phase 2 commenced 5 May 2008 in conjunction with MUDFA TM arrangements for Foot of the Walk/Constitution Street
- Scottish Water: Commencement due late May 2008
- BT: Commencement due late May 2008
- Sign off of Constitution/Baltic Street Traffic Management approach
- MUDFA diversions continue in this area

1.1 Section 1B

Section 1B Sheets 22-26 (Foot of the Walk to Balfour Street)

Traffic Management in place between Balfour Street and the Foot of the Walk to accommodate MUDFA works

Progress

Progress during period against work programme: 31%

- Works include installation of gas, water, power and telecoms apparatus in this area on both sides of Leith Walk
- Critical path works on the Duke Street utility crossings have commenced and are 15% complete (on programme)
- Overall the works are 5 weeks behind programme
- Resources in the section lower than required to deliver the work programme

Highlights

- Foot of the Walk junction amended as part of installation of Constitution Street Traffic Management arrangements.
- Construction of major BT chamber completed at the Foot of the Walk (on programme)
- Leith Walk/Manderston Street junction traffic signals commissioned to support Foot of the Walk TM arrangements

Key Issues/Blockers

Duke Street Utility Crossings are required to be completed before Manderston Street and Leith Walk utility crossings can be completed and existing conflict mains in Leith Walk can be abandoned.

Action – Target date for completion of Duke Street crossings brought forward to Monday 19 May 2008.

Issues related to construction of BT chamber opposite Manderston Street delaying Water and BT works on Northbound side of Leith Walk in this area.

Action – Solution to be agreed with BT and SW during this period

Resources in the section lower than programme requirements demand.

Action – revised agreed programme developed to address this issue.

Programme Lookahead

Gas and water mains to be tested and commissioned
Gas and water service transfer works to commence

Section 1B Sheets 27-31 (Balfour Street to McDonald Road)

Traffic Management in place between Balfour Street and McDonald Road to accommodate MUDFA works.

Progress

Progress during period against work programme: 65%

- Sections of gas main tested and commissioned on Leith Walk.
- Water, gas and telecoms works continue throughout the section.
- Overall the works are 3 weeks behind programme.
- Resources in the section lower than required to deliver the work programme.

Highlights

- Traffic Signals altered at Leith Walk/Pilrig Street junction to release work area to AMIS to allow through connection of two sections of Gas and Water main.
- Commencement of Traffic Management design process for reducing Leith Walk to one way flow (Southbound). The Northbound flow would be directed via Easter Road

Key Issues/Blockers

- Utility crossings over the Network Rail Bridge. Utility crossings originally planned to be completed in 2007, commencement delayed due to:
- Requirement for trial holes to determine depth of cover across tunnel crowns and associated requirement for Network Rail approval for trial holes
- Utility company approval for reduced depth of cover and apparatus protection arrangements
- Requirement for Network Rail approval of utility crossings and proximity of diverted assets to tunnel crowns

Action - Work Package Plan for utility crossings across Leith Walk Railway Bridge submitted to Network Rail on 22nd April 2008.

Resources in the section lower than required to deliver the work programme

Action – revised programme to address this issue.

Programme Lookahead

Commencement of utility diversions across the Leith Walk Railway Bridge – works commenced w/c 28 April 2008.

McDonald Road Traffic Lights to be amended

Gas and water mains to be tested and commissioned

Gas and water service transfer works to commence

1.2 Section 1C

Section 1C Sheets 32-38 (McDonald Road to York Place)

Traffic Management in place between Annandale Street and Greenside Place to accommodate enabling works for Traffic Management measures in this section

Progress

- Enabling works to remove central reservation in this section on programme.
- MUDFA work in this section reprogrammed to commence on 2 June 2008 against original planned start date of 28 April 2008. Start date deferred to allow review of CEC St James redevelopment plans and confirm 'no conflicts' on Picardy Place utilities. Additionally, reduces compounding effect of implementation of City Centre Phase II Traffic Management. Both were planned to be initiated same date. Similar compound effect on the Traffic Management on Leith Walk is minimised. The revised start date (5 weeks later) not critical to the INFRACO programme start date.

Design

- Drawings 32-38: Problem section. IFC drawings have been received but since it is known that changes have occurred at Picardy Place, drawings 36-38 have been held back. SDS await a Change Order to revisit these drawings.

Highlights

- Designs produced for Traffic Management arrangements based on three phase approach to the London Road junction using a mini roundabout.
- Additional design work being carried out to accommodate the coincident affects of the proposed Leith Walk one way system.

Key Issue/Blockers

- Picardy Place.

Programme Lookahead

Traffic Management enabling works continue, including, signing, lining and installation of traffic signal at junction of Leith Walk/London Road.

All trial holes within the Public Highway complete. 2 no. trial holes within Network Rail land at Haymarket Station remain outstanding

Section 1C Sheets 39-41 (St Andrew Square)

Traffic Management on York Place at its junction with North St Andrew Street; and between York Place and Princes Street on North and South St Andrew Street to accommodate BT related MUDFA works

Progress

Progress during period against work programme: 58%

- Completion of 2 no. BT chambers and installation of 100m of ducts; duct run includes 34 way and 9 way ducts therefore approximately 2km of ducts laid in the period.
- Works restricted at the head of Dublin Street due to proximity of parking VMS. Head of VMS was removed during w/c 7 April 2008.
- Resources in the section lower than required to deliver the work programme

Highlights

- Commencement of Traffic Management design process for City Centre Phase III. Proposals include closure of St Andrew Street and East side of St Andrew's Square from 7 July 2008.

Key Issues/Blockers

- Scottish Water Sewer – Damage to SW sewer to be repaired at same time as BT diversion works are progressed.

Action: tie and SW to agree repair design and duct crossings across route of sewer. Design agreed in principle with SW. Works planned to be complete by 23rd May

BT Duct installation across York Place. Traffic Signals require to be relocated to allow TM footprint to be amended to support crossing of York Place with 34 way BT duct run

Action – Siemens to amend traffic signal layout following consultation with CEC on 6 May 2008.

Resources in the section lower than required to deliver the work programme.

Action – revised programme to address this issue.

Programme Lookahead

BT diversion works – ducts and chamber construction – continue in area

Section 1C Sheets 42-46 and Section 1D Sheets 47-48 (Princes Street)

- Traffic Management on Princes Street at its junction with South St David Street to accommodate SW related Princes Street crossings.

Progress

- No works planned during period

Design

- Drawing 44 requires design of a 30" cast iron gas main. SDS have written to **tie** to indicate their reluctance to proceed with this design. **tie** have responded by confirming that the design is to be completed asap. All other IFC information relating to the remaining utilities has been released. Gas main diversion commences beginning September 2008. Design element non-critical.

Highlights

- Commencement of Traffic Management design process for City Centre Phase III. Proposals include partial closure of The Mound and Hanover Street junction with Princes Street from 8 September 2008

Key Issues/Blockers

- Diversions between the Mound and South St Andrew Street behind programme due to extent of existing services and requirements to alter/amend TM impacting on progress. In addition the works were delayed four weeks to allow trial holes on the SGN medium pressure main to be undertaken. The trial holes on the medium pressure main have meant that the scope of the diversion has been reduced by 70%. 3 no. water and 1 no. gas crossing to be installed and commissioned prior to 7 July 2008 to allow for City Centre Phase III Traffic Management to go live.

Action: Scottish Water complete valve investigation works by Friday 9 May 2008 to allow completion of diversions.

TM proposals for outstanding Princes Street crossings approved by TMRP on 28 April 2008..

Programme Lookahead

Completion of Princes Street water and gas crossings at South St David Street and Waverley Bridge

1.3 Section 1D Sheets 49-53 (Shandwick Place)

Traffic Management on Shandwick Place between its junction with Lothian Road and Manor Place to accommodate MUDFA works

Progress

Progress during period against work programme: 20%

- MUDFA works at the Lothian Road/Shandwick Place junction completed Friday 25 April 2008 to allow City Centre Phase II TM arrangements to be introduced.
- Enabling works completed on Hope Street and Queensferry Street as part of City Centre Phase II TM arrangements.
- LUX temporary pedestrian crossings replaced by Siemens temporary pedestrian crossings on both Hope Street and Queensferry Street.
- 60m of multi utility (gas, water and telecoms) shared trenches completed on both sides of Shandwick Place.
- Removal of abandoned Scottish Power cables, South side, allowing gas and water diversions to proceed.

Highlights

- Issue of abandoned cables resolved with Scottish Power, cost sharing agreed
- MUDFA works on programme to allow City Centre Phase II TM arrangements to be introduced – works commenced Saturday 26 April 2008.
- Commencement of Traffic Management design process for City Centre Phase III. Proposals include phased works on West Maitland Street and Haymarket from 14 July 2008

Key Issues/Blockers

- Resources in the section lower than programme, less than half that required to deliver the work programme. The resources were allocated to the East end of the section primarily, to ensure Phase 2 Traffic Management requirements were complete for the weekend of Saturday 26 April 2008. This has impacted on the output on the utility diversions within the period.

Action: Issue to be addressed in the revised programme.

Programme Lookahead

City Centre Phase II traffic management arrangements implemented over weekend of Saturday 26 April 2008 and Sunday 27 April 2008.

Review potential to open up additional areas ahead of programmed.

1.4 Section 2A

Design

1-3: Issued for approval. Verbal approval has been given by the Utility companies, however the R.O.R carried out by **tie** has again highlighted a significant number of mistakes. This has been reverted back to SDS for re-submission.

Works to commence within w/c 5 May 2008 under RATS.

1.5 Section 5B

Section 5B Sheets 14-20 (South Gyle Access Tram Stop to Edinburgh Park Tram Stop)

Progress

- Critical path works on the Openreach ducts and chambers are 50% complete.
- Water main diversion (90%) has been installed awaiting final testing but the road reinstatement progressed in advance to allow Phase 2 Traffic Management to proceed. The installed length is approximately 130m, increased from the planned 76m due to the design conflicting with the new retaining wall.
- Overall the works are 3 weeks behind programme due to the water main diversion extension preventing commencement of Phase 2 traffic management. This can be recovered during the enabling works and the construction of the second Openreach chamber.

Highlights

- Openreach chamber in South Gyle Access/Bankhead Drive Junction programme recovered from 1 week behind to being completed 2 weeks ahead.
- Non-critical path diversions are progressing cumulatively ahead of the programme.

Key Issues/Blockers

- The extension of the water main diversion past the guided bus-way at the South Gyle Access is completed allowing reinstatement of the road and removal of Phase 1. This has impacted the Phase 2 Traffic Management works for the removal of the central reservations required for the works in the South Gyle Access. It is anticipated that this will delay commencement of the second Openreach chamber by 3 weeks.

Action: Unimpeded construction of the second chamber will recover part of this delay. Trial holes cannot be carried out in advance due to the traffic management restrictions.

- The Traffic Management for Phase 2 has been approved but final requirements for the pedestrian crossing and the signal changes still being addressed.

Action: Requirements finalised at TMRP on 22 April 2008 for implementation.

Programme Look-ahead

Completion of the Phase 2 Traffic Management, which is now the critical path.

Commence 402 Openreach chamber at South Gyle Access.

1.6 Section 5C

Section 5C Sheets 21-26 (Edinburgh Park Tram Stop to Gogarburn Tram Stop)

Progress

- Works commenced in the Gyle Car Park on 21 April 2008 on the 450mm DI water main and the 33kV power cable diversions.

Design

- Drawings 21-26 issued for approval. This has been a problematic area. Approvals are expected soon. Some conflicts have been removed and renamed 6a by SDS. IT now appears redesign of the bridge providing road access to the depot has removed these utilities as conflicts.

Issues/Blockers

- The co-ordinates and level for the levels at the A8 underpass are required from SDS to relocate chambers and apparatus which SDS has previously shown through or in the cutting.

Action: SDS to confirm agreement to proposals as a matter of urgency.

- MUDFA has issued TQs proposing alternative route for the 33kV cables through the Gyle Car Park as a result of both the above relocation and the conflict with the existing duct chambers missed in the SDS design.

Action: Scottish Power has agreed to reduce the 33kV cable spacing to get this diversion passed the chambers.

- The existence of the chambers will have a direct impact on the programme with the water main and power cables needing to be double trenched. This will delay the works by at least 1 week.

Action: MUDFA to approach the Gyle Centre requesting relaxation of the vehicle movement restriction initially imposed once the works have been established.

- IFC documents are not available for the utility crossings of the Gogar Roundabout awaiting issue from SDS.

Action: MUDFA has progressed approval in principle of the traffic management for the crossings but final dates cannot be agreed until the IFC issue date has been confirmed.

The roundabout crossings will be issued to AMIS as a Change Order to the Section 5C Work Package.

Programme Look-ahead

Works outside the car park commenced 28 April 2008. This is in accordance with the Rev 6 programme for the works between Edinburgh Park Tram Stop and the A8 roundabout but is 8 weeks late for the works between the roundabout and the Gogarburn Tram Stop, pending IFC documents.

1.7 Section 6 – Gogar Depot

Progress

- Preparation of s/c order to allow work to commence on the earthworks trimming in advance of the 800mm water main installation. This is a critical activity to ensure commencement of Infracore work at the beginning of June 2008.

Design

- 1500mm Sewer issued for approval drawings received Thursday 31 April 2008.

800mm Water main diversion Drawings have been approved by Scottish Water.

Key Issues/Blockers

- SDS to provide proposed ground levels on the route of the pipe.
- SDS to provide IFC documentation. Documents issued to date do not contain sufficient information to complete the installation or carry out the Record of Review. However, preparation work can commence.

Programme Look-ahead

Preparation for the installation of the 800mm main to commence 6 May 2008, in accordance with the latest programme.

Review proposed 1525mm sewer diversion. Initial assessment into potential options to approved diversion, to allow Infracore site establishment erection as planned in mid May 2008. SW have confirmed that the approved diversion is the only option they will consider as appropriate.

1.8 Section 7A

Progress

MUDFA works at 7A were completed under RATS. Some remaining diversions have been allocated to Infracore due to earthworks or access restrictions making MUDFA diversions uneconomical.

1.9 Section 7B

Progress

7B design by Carillion/Grontmij is in progress.

Design

Design and build contract with AMIS.

Programme Look-ahead

Workshop held with BAA following progress meeting with Carillion/Grontmij w/c 28 April 2008. **tie** awaiting feedback from Carillion.

Advance works will be identified and carried out under RATS with the agreement of BAA.

Programme start date: 2 June 2008.

See Appendix 2 – Performance Measures

2.0 Traffic Management

Traffic Modelling and design for City Centre Phase 2 works complete. TM requirements for signage, traffic signals and enabling works completed. Resources and measures implemented, of Phase 2 traffic diversions, on Saturday 26 April 2008, as programmed.

Traffic Modeling and enabling works ongoing for Leith Walk/London Road; design of signalised junction ongoing.

Traffic Modeling near completion for City Centre Phase 3

Major Traffic Management in place at:

- Shandwick Place
- Foot of Walk/Constitution Street

Other Traffic Management in place at:

- Leith Walk
- York Place
- Princes Street
- Cultins Road
- Bankhead Drive/South Gyle Access
- Lochside Avenue
- Slip to Morrison's

See Appendix 3: Traffic Modelling

Stakeholders

3.0 Lothian Buses

No report for this period.

4.0 CEC

No report for this period.

5.0 Programme

Review of current progress and re-phasing of key sections; the Mound, London Road and section 7b has lead to the development of the revised Construction programme revision 07. It is currently in draft form and awaits final review by key stakeholders prior to issuance as the approved revised construction programme.

Key elements to note are the construction works continuing on through the embargo in August for St Andrew Street and West Maitland to Haymarket Terrace.

Additionally, the commencement of the Mound is to be deferred till after the August embargo to minimise construction and traffic disruption. This will continue on after the Xmas embargo into mid Feb'09.

6.0 Communications

6.1 Media and Communications

Achievements in the month:

- Production & distribution Update 4 – Shandwick Place Phase 2
- Briefings held on construction programme to press and key stakeholders
- 4,000 re-notification letters sent to residents and businesses in the London Road roundabout area – work now starting 2 June 2008.
- Production of tram information boards along key locations of the route
- Press coverage of Community Boards, Open for Business and Small Business Support Scheme
- Ongoing construction updates to tram website
- Management of sponsorship events and exhibitions
- Organisation of Leith Festival sponsorship package

Planned activities in the month include:-

- Additional signage for Constitution Street businesses
- Production & distribution of updates for upcoming work sites (Constitution Street, Leith Walk, Haymarket, London Road etc)
- Support MUDFA Clearance Programme
- Media briefings for contract close and upcoming works
- Produce tram fact sheet May
- Update community boards
- Open for Business Marketing Group
- Liaise with Leith Festival to confirm operational issues

6.2 Site works

The Trams for Edinburgh website was updated during the month to reflect all MUDFA activity.

6.3 Customer Interaction Cycle

Inbound demand continued to rise reflecting the increased notification send out and intensity of MUDFA operations. There were a total of 164 inbound enquiries in the month, the highest recorded. The analysis is shown in the report appendices.

Proactive contact by Tram Construction Advisers remains at a high level. Two new tram helpers have been recruited this month with further recruitment activity on going to reflect the increase in active work sites.

The key focal point around new works sites were the planned extension beyond London Road roundabout area of Leith Walk (5000 notifications) and the extension to Constitution Street sites (1000).

6.4 Stakeholder Engagement

Business Support_– The activity in this area continues to build reflecting the high intensity of the MUDFA programme. More than 160 business applications have been accepted and the cumulative support exposure now stands in excess of £600,000.

A great deal of work is now going in to sending packs to businesses who are now eligible under the new scheme rules. Potentially 200 additional businesses could now qualify.

6.5 Enquiry and Engagement Activity Statistics

See Appendix 4: Communications Report

7.0 Initiatives

- Review of service utility diversions requirements based on revised depth and protection. Area of review 400 – 1200 depth range below FRL. Further review of latest detail of INFRACO proposed RHEDA CITY track system and potential reduced diversions ongoing. Overall construction depth to be of the order of 350 – 400mm. Protected services identified on 'as-builts' for informing SUC's/ INFRACO et al. Method of measurement may affect overall saving.
- Maximise recovery of costs associated with SUC C4 estimates via specialist consultant's advice/input – this would only be related to SW and BTO. Telecom specialist has joined the MUDFA team to assist in the design/construction and C4 implications related to betterment/deferment etc. Agreement reached with SGN for whole of the works – retained within the allowance (excl. MP gas main at the Mound). Agreement reached with Scottish Power for whole of the works.
- Provision of an independent survey team to carryout dilapidation surveys along the tram route (SDS responsibility) – protect tie's position from potential 3rd Party claims post MUDFA & INFRACO – Commencement of dilapidation surveys by independent body on 10 December 2007. Expect these to be completed by end of June 2008, due to additional requirement to survey the route of the diversions.
- RAT's proposal put forward for section 7b and following discussions with BAA, principle to adopt process on less complex utility diversions accepted.
- Review of both MUDFA/INFRACO programmes to identify critical areas wherein synergies can be adopted through interface of programmes. Revised design programme impacting on ability to obtain visibility of interfaces.
- Review of section 1A diversions – assess potential programme gains due to implementation of temporary diversions, thereby allowing earlier construction start to INFRACO works. Awaiting details of retaining wall structure on Lindsay Road to verify alternative diversions. Proposed structural changes to

bridges on Ocean drive under review to assess impact on temporary diversion proposals.

8.0 Key Issues/Blockers

- SGN 30" gas main at the Mound: Ratifying commercial regarding minimum diversion.
- SGN service work outside of the LOD (service connections); SGN to carry out works.
- Leith Walk Cable Tunnel – require definition of trackform to enable SP to assess impact of tunnel and provide approval for utility diversion crossings above the tunnel; resolution required as a matter of urgency.
- Re-profiling of South end of Gogar Depot Earthworks Profile has resulted in conflict with 250mm Water main and proposed 800mm Water main. 250mm Water Main requires re-diversion prior to the 800mm Water Main being laid.
- Section 7B – procurement of D&B ongoing. Potential delay to commencement of this section. Presently programmed to commence 2 June 2008.
- Carillion Resources: Operatives and supervision levels. Critical to successful completion of programme.

See Appendix 5: Risk Register



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AGENDA ITEM 3

Appendices



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APPENDIX 1

Leith Walk Clearance Summary Sheet

Leith Walk Programme

AREA NO.	LOCATION	START DATE	END DATE	NOTES
1	3-17 Albert Place	Existing	25 th April 2008	
2	Corner of Albert St.	Existing	2 nd May 2008	
3	Corner of Iona St.	Existing	2 nd May 2008	
4	229-263 Corner of Jameson Pl.& Lorne St.	Existing	2 nd May 2008	
5	21-55 Corner of Crown Pl.	Existing	2 nd May 2008	
6	72-75 Corner of Brunswick St.	Existing	9 th May 2008	
7	1-3 Corner of Brunswick St./Rd.	Existing	9 th May 2008	
8	297 & 301-307 Corner of Dalmeny St.	Existing	9 th May 2008	
9	265-289 & 293	Existing	9 th May 2008	
10	77-91 Corner of Crown St.& Manderston St.	Existing	9 th May 2008	
11	4-10 Corner of Brunswick Rd.	Existing	16 th May 2008	
12	13-32 & 372-381 Corner of Iona St.	Existing	16 th May 2008	Last 2 weeks on footpath only
13	185-227 Corner of Smith's Pl.& Lorne St.	Existing	23 rd May 2008	Last 3 wks = 1 lane of carriageway under TM
14	169-177 Corner of Smith's Pl.	28 th April 2008	23 rd May 2008	Last 2 wks = 1 lane of carriageway under TM
15	135-165	Existing	23 rd May 2008	
16	13-17	Existing	30 th May 2008	
17	Corner of Iona St.	26 th May 2008	30 th May 2008	Junction of Iona/Leith
18	99-131 Corner of Manderston St.	Existing	30 th May 2008	
19	19-31	Existing	6 th June 2008	
20	Corner of Shrub Pl. Lane	28 th April 2008	6 th June 2008	
21	Corner of Dalmeny St.	2 nd June 2008	6 th June 2008	Junction of Dalmeny/Leith
22	Corner of Jameson Pl.	9 th June 2008	13 th June 2008	Junction of Jameson/Leith
23	Corner of Albert St.	9 th June 2008	20 th June 2008	Junction of Albert/Leith
24	276-282 Corner of Balfour St.	Existing	27 th June 2008	
25	166-180 Corner of Stead's Pl.& Springfield St.	Existing	27 th June 2008	
26	142-150	Existing	27 th June 2008	Footpath only
27	100-140	2 nd June 2008	27 th June 2008	
28	80-98	12 th May 2008	27 th June 2008	
29	Corner of Duke St. & Great Junction St.	Existing	4 th July 2008	
30	3-18	7 th July 2008	21 st July 2008	
31	Corner of Manderston St.	7 th July 2008	21 st July 2008	

Future works requiring Traffic Management

In addition to the installation of new pipes, cables, ducts and chambers there are other activities required to be completed prior to INFRACO entering Leith Walk. The additional works being the installation of utility crossings, consumer service transfers and the abandonment of the utility apparatus in conflict with the tram alignment.

The Traffic Management arrangements required for the remaining works will be localised and much smaller than presently seen on Leith Walk.

Note – the utility crossings are proposed to be carried out by installing a one way system on Leith Walk, with traffic flowing southbound on Leith Walk and making the return northbound journey via Easter Road. One way system to commence once Duke Street is returned to two way flow in early July.



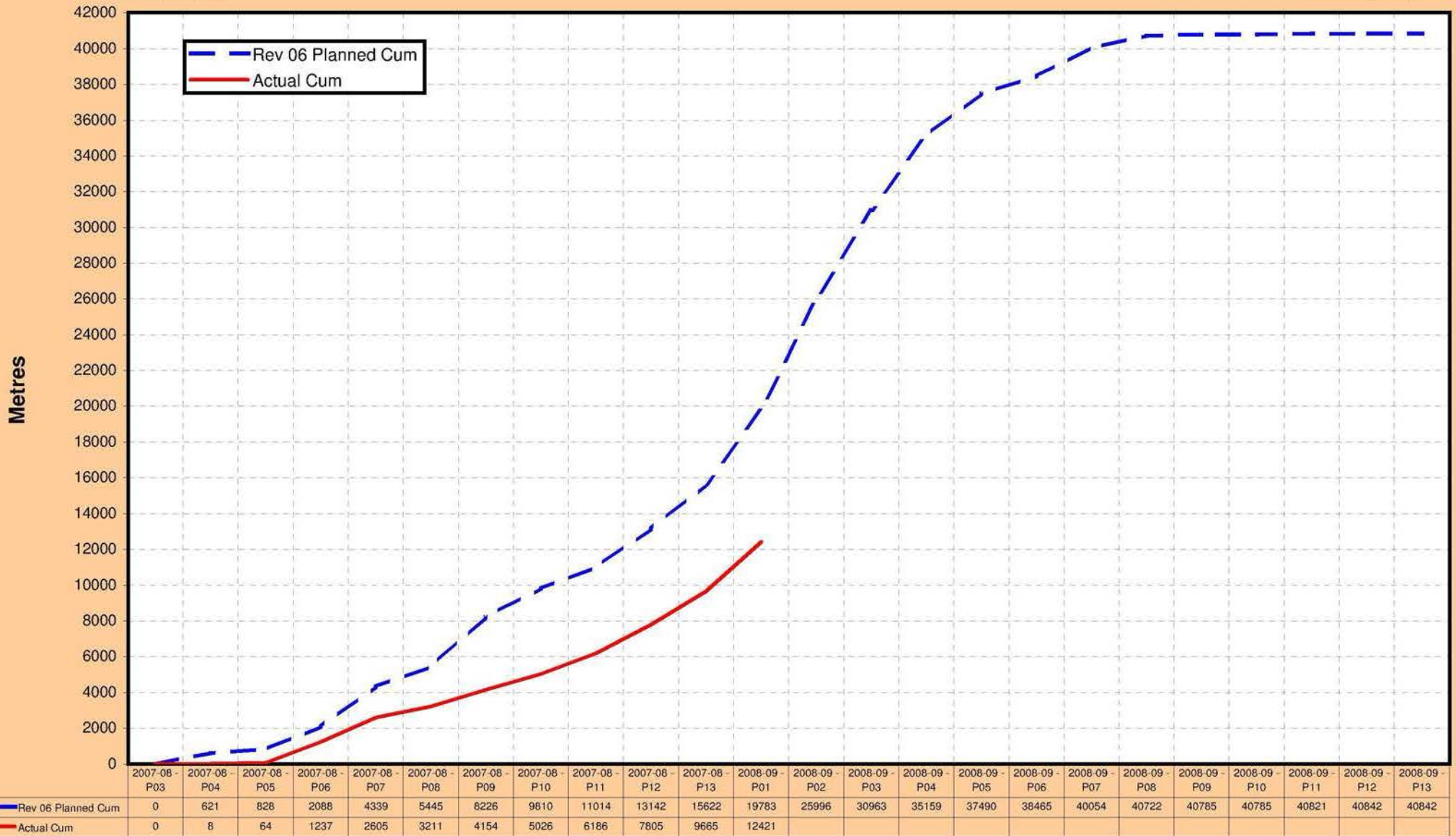
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APPENDIX 2

Performance Measures



Edinburgh Tram Project MUDFA Rev 06 Programme Project Metres Status



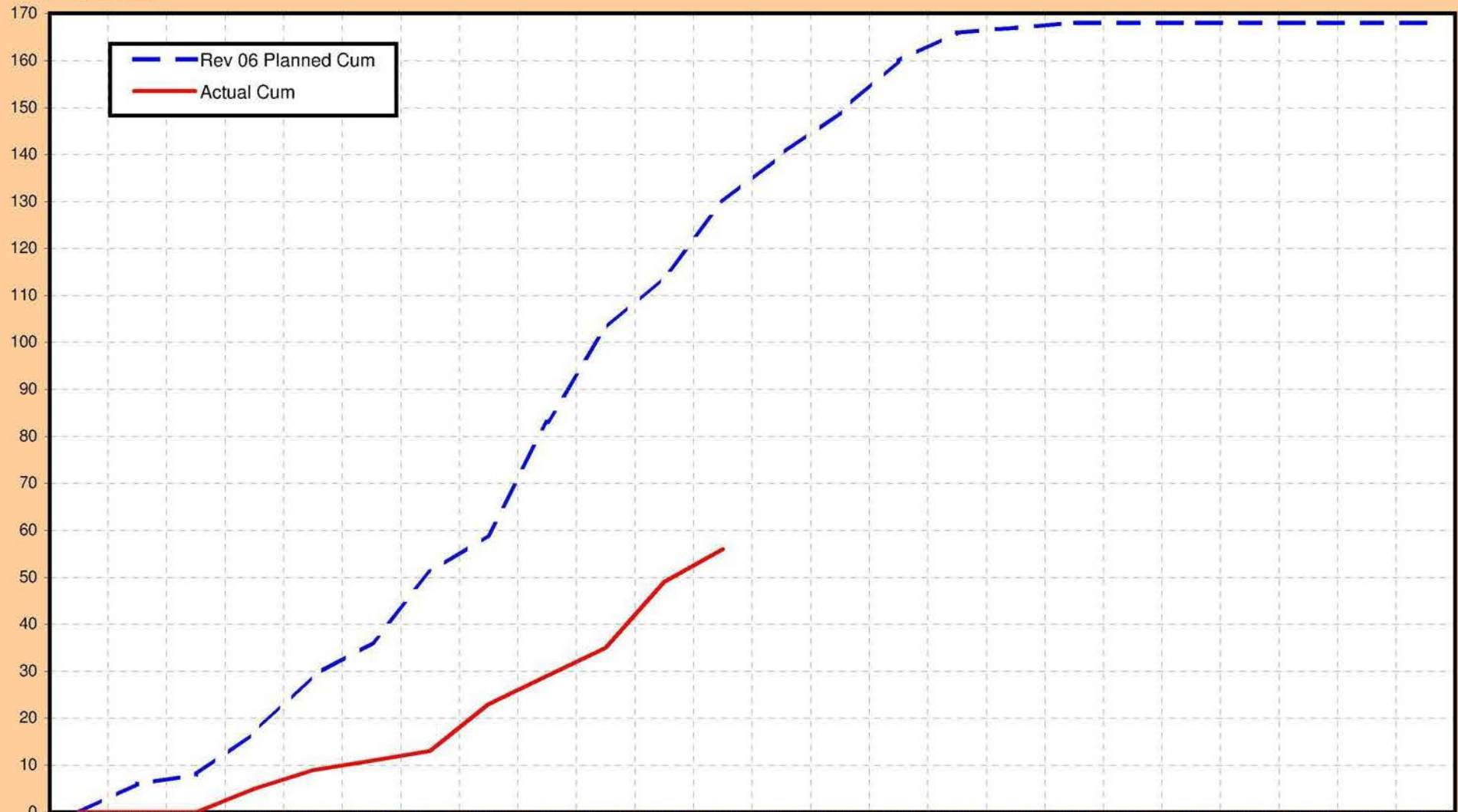
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Edinburgh Tram Project MUDFA Rev 06 Programme Project Chambers Status



No. of Chambers



	2007-08 - P03	2007-08 - P04	2007-08 - P05	2007-08 - P06	2007-08 - P07	2007-08 - P08	2007-08 - P09	2007-08 - P10	2007-08 - P11	2007-08 - P12	2007-08 - P13	2008-09 - P01	2008-09 - P02	2008-09 - P03	2008-09 - P04	2008-09 - P05	2008-09 - P06	2008-09 - P07	2008-09 - P08	2008-09 - P09	2008-09 - P10	2008-09 - P11	2008-09 - P12	2008-09 - P13
Rev 06 Planned Cum	0	6	8	17	29	36	51	59	83	103	114	130	140	149	160	166	167	168	168	168	168	168	168	168
Actual Cum	0	0	0	5	9	11	13	23	29	35	49	56												

Period



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APPENDIX 3

Traffic Modelling

Lead in Time required to Allow Modelling Exercise for forthcoming MUDFA Works

Location of Works	Current Modelling and TM Design Position	Programmed Start Date	Required Date to Start Modelling - 10 week lead in	Required Date to Start Modelling - 6 week lead in
Shandwick Place Closure (Phase 1)	Modelling & TM design completed and installed	03/03/2008	24/12/2007	21/01/2008
Constitution St / FOTW	TM modelling and design completed. TM procurement initiated	31/03/2008	21/01/2008	18/02/2008
Gogar RA / A8	No modelling required, localised TM required.	04/04/2008	25/01/2008	22/02/2008
London Road Traffic Signals	TM Modelling and design ongoing.	02/06/2008	24/03/2008	21/04/2008
Hope Street re-designation (Phase 2)	Faber issued modelling and TM design brief	28/04/2008	18/02/2008	17/03/2008
Picardy Place	No works actioned	16/06/2008	07/04/2008	05/05/2008
Haymarket / Manor Place	TM Modelling and design ongoing.	14/07/2008	05/05/2008	02/06/2008
The Mound	TM Modelling and design ongoing.	10/09/2008	02/07/2008	30/07/2008
St Andrew's Square	TM Modelling and design ongoing.	07/07/2008	28/04/2008	26/05/2008
Baltic Street/Bernard Street	TM Modelling and design ongoing.	12/05/2008	03/03/2008	31/03/2008

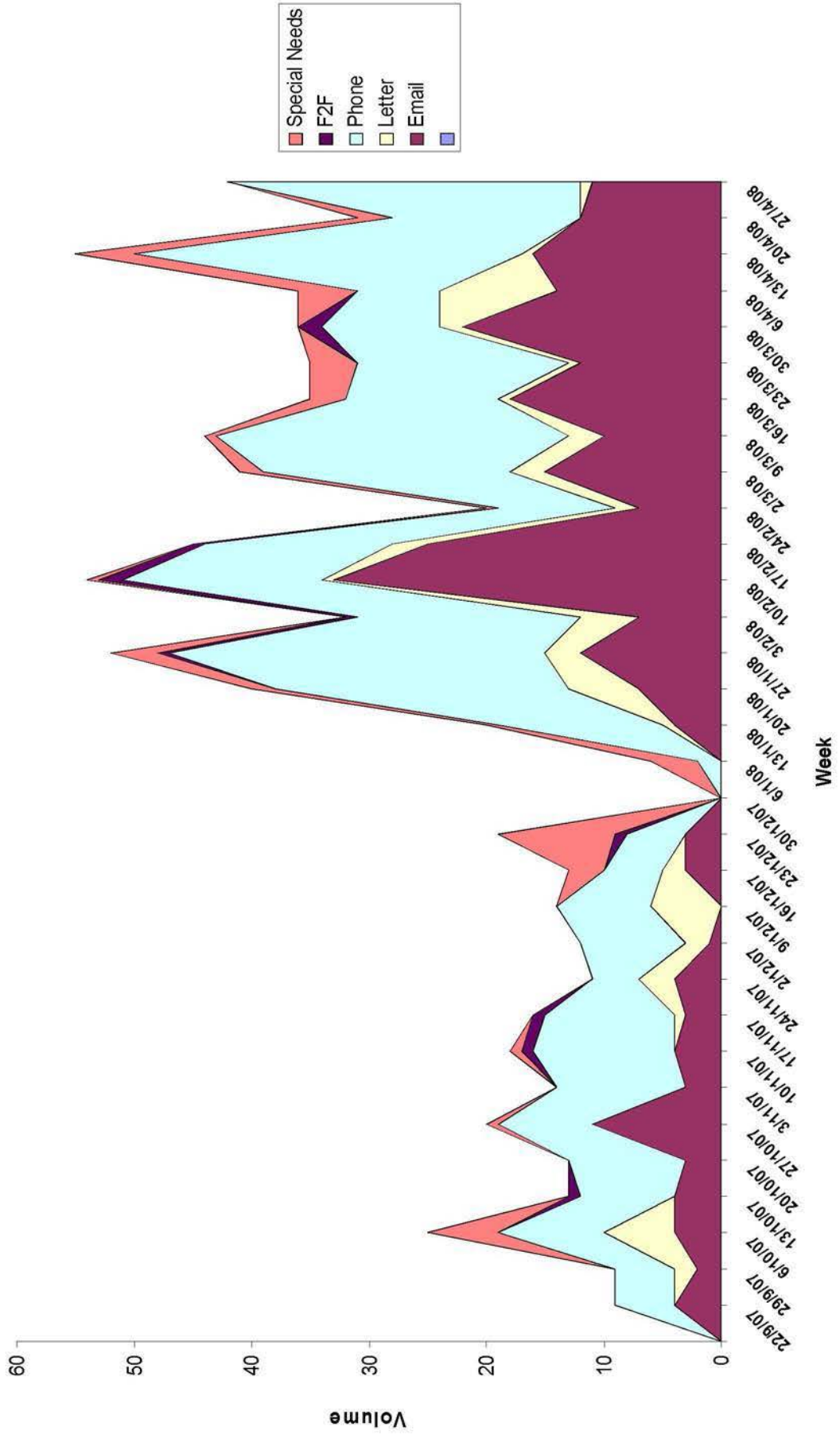


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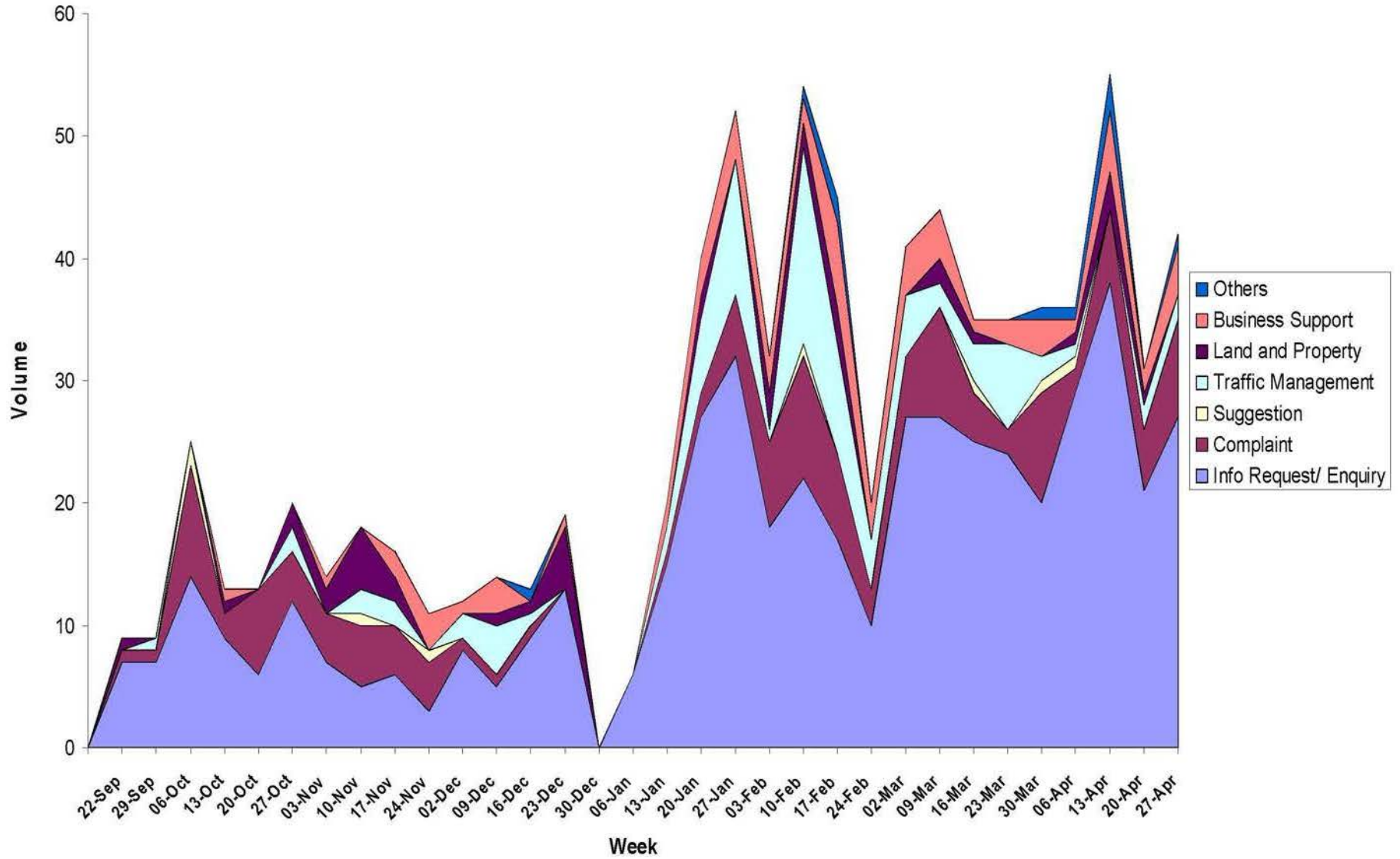
APPENDIX 4

Communications Report

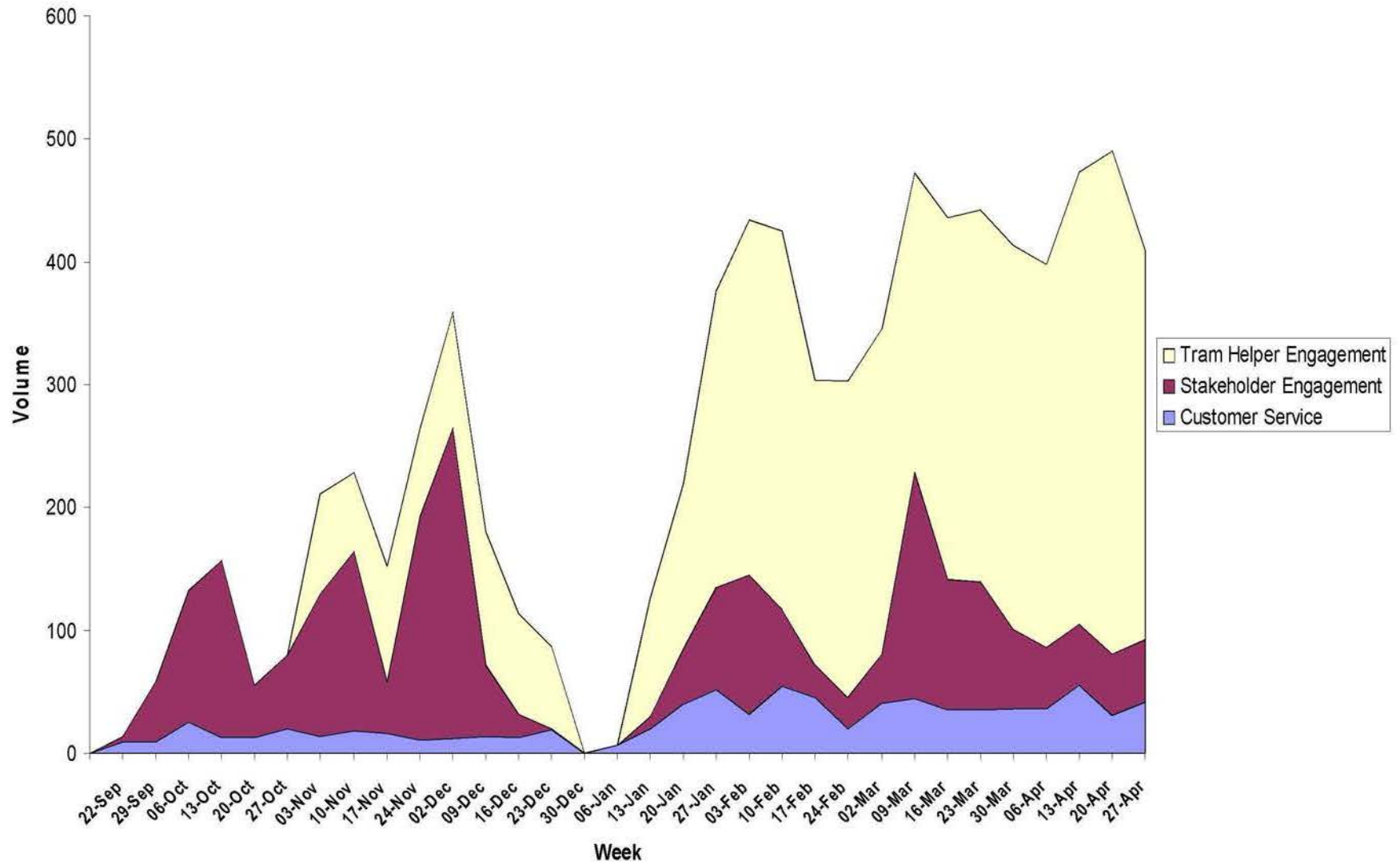
Enquiries by Mode (cumulative to April 2008)



Enquiries by Reason (cumulative to April 2008)



Total Contacts by Source (cumulative to April 2008)



Complaints - April

No.	Date	Complaint Description	Resolution
1	07/04/08	Advising tram work is a waste of the tax payers money	Comments Noted
2	21/04/08	Customer complaining about works taking so long, says we have previously dug up the pavement, reinstated it now we are digging it up again	Advised customer of remaining work period / plating options being considered
3	25/04/08	Wanting to know timescale of works, also says that one of the workmen was quite rude	TCA visit, outlined timescales, apology given
4	31/03/08	Complaint re. heras fencing at Princes St	Explanation given re. site and traffic management
5	07/04/08	Water Supply cutting out	Investigated, Scottish Water problem
6	07/04/08	Tripped and fell at Queensferry St. junction	Apology given, further reinstatement work carried out.
7	07/04/08	Near miss at McDonald Rd. junction	Comment noted, incidence of light sequencing passed to CEC
8	10/04/08	Poor signage at Picardy Place	Apology and explanation given
9	10/04/08	Water supply problems	Scottish Water problem
10	11/04/08	George Street congestion	Apology and explanation given
11	14/04/08	Traffic Congestion at Baltic St. junction	Apology given traffic management changed
12	15/04/08	Problem with works site at Links Place	TCA visit, explanation given
13	15/04/08	Car damaged by sign	Being dealt with via insurers
14	16/04/08	Complaint about drilling	Apology and explanation given
15	21/04/08	Removal of Lothian Rd. crossing without notice	Apology given

Complaints – April (contd)

No.	Date	Complaint Description	Resolution
16	22/04/08	Follow up – car damaged by sign	Passed to insurers
17	22/04/08	Noise on Leith Walk	Apology and explanation given
18	22/04/08	Work site started with no notification	Apology and explanation given (enabling works)
19	23/04/08	Unhappy with impact of works on business	TCA visit, explanation given
20	24/04/08	Complaint re. disruption	Apology and explanation given
21	25/04/08	Poor pedestrian arrangements at Lothian Rd. junction	Apology given



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APPENDIX 5

Risk Register

MUDFA Risk Register - Period 1

Risk Description											
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or G Barclay delays as a result of carrying out more diversions than estimated		High - 25.00		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	31-May-08	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	I Clark	High - 25.00		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	31-May-08	A Hill
342	Tram alignment at A8 crossing at Gogar coincides with 1500mm sewer	1500mm sewer required to be diverted	Capex cost to cover BT data nest/cable move; additional design costs; delay while works to undertake move are carried out; additional tunnelling costs.	I Clark	High - 24.00		Confirm if diversion required	On Programme	Complete	8-Mar-08	G Barclay
							Confirmation of BT requirements to tie	Complete	Complete	15-Oct-07	I Clark

911	Scottish Power own and maintain a cable tunnel in the vicinity of Leith Walk that may or may not interfere with Tram construction and operation; exact location and depth of tunnel is unknown; condition of tunnel is unknown.	Presence of Scottish Power tunnel in Leith Walk requires approved construction methodology from Scottish power - works scheduled for August 08.	Tunnel may have to be decommissioned and re-laid in a more suitable location; tram alignment may require to be adjusted; special foundation solution e.g. cantilever may be required; increased capex; potential for tunnel collapse during operation and consequent disruption for tram.	M Blake	High - 24.00	Liase with Scottish Power to agree and approve method of crossing tunnel	Undefined	On Programme	31-Aug-08	M Blake
						Scottish Power to establish exact location of tunnel	Complete	Complete	2-Apr-07	M Blake
						SDS to try and ensure tram alignment footprint is outwith Scottish Power alignment - confirmation via thumbnails due 16th November	Complete	Complete	28-Dec-07	T Glazebrook
						tie to undertake engineering feasibility study	Complete	Complete	2-Apr-07	J Casserly
914	Required approval/acceptance turnaround time does not reflect SUC standard practice; SUCs do not have enough resource or process capability to achieve 20 day turnaround	Statutory Utility Companies unable to meet design approval/acceptance turnaround time to meet programme	Additional period required for design approval/acceptance turnaround	T Glazebrook	High - 20.00	SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms	On Programme	On Programme	30-Jun-08	I Clark
						SDS to obtain consent for design in accordance with programme requirements - SGN and Scottisk Power	On Programme	On Programme	30-Jun-08	M Blake
926	Complexity of traffic management proposals require additional approvals (relating mainly to city centre)	Approvals for traffic management proposals are not approved or take so long to approve that work cannot commence in line with the programme	Delay to project.	G Barclay	High - 18.00	Review traffic management requirements for rev 6 programme and the alignment of these requirements with programme start dates	On Programme	On Programme	1-Jun-08	K Rimmer