



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

MUDFA Sub Committee Report Papers For Meeting 9 April 2008

Distribution

Willie Gallagher
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Steven Bell
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Tom Clark
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Keith Rimmer
Bill Campbell
Bill Nicholls

Alan Dolan
Steven Reynolds
Andrew Malkin
Steve Hudson



Agenda

Sub-Committee Meeting

to be held at Kingdom Meeting Room, Citypoint II

on Wednesday 9 April 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: Progress Curves

Appendix 2: Traffic Modelling

Appendix 3: Communications Report

Appendix 4: Risk Register

Appendix 5: MUDFA/Infracore Programme Interface

Appendix 6: Programme: 800 Water Main (Gogar)

4. AOB



MUDFA Sub-Committee Meeting

AGENDA ITEM 1

Actions from Previous Minutes

tie Limited

Minutes of Sub-Committee Board Meeting

Date: 12 March 2008

Time: 14.00

Venue: Kingdom Meeting Room, CityPoint II

In Attendance	Willie Gallagher (part)	WG
	Graeme Barclay	GB
	Steven Bell (part)	SB
	Susan Clark	SC
	Colin McLauchlan	CM
	Stewart McGarrity	SM
	Barry Cross	BC
	Stan Honeyman	SH
	Tom Clark	TCL
	Mike Connelly	MC
	Andy Malkin	AM
	Steve Hudson	SH
	Barry Cross	BC
	Keith Rimmer	KR
	John White	JW
	Alan Dolan	AD

Circulation As Above
MUDFA Team

	ACTIONS	ACTION BY	DATE DUE
1.1	[1.2] GB to provide summary checklist for section release: required at next meeting. .	GB	COMPLETE
1.2	[1.3] Worksites; issue of reports being made of worksites with no-one working on them; there are reasons for this which are not being communicated. We must have a process in place whereby this information is communicated to the businesses/public.	MC	09.04.08
1.3	[1.8] Signage: we need to be looking at the whole route and preparing for this in advance. SB to liaise with BC. Input required from CEC to ensure we are not in breach of any council legislation.	BC/SB	Ongoing
1.4	[1.11] Branch Review of the management process at MUDFA to be carried out by Jim McEwan. WG will review.	WG	COMPLETE

1.5	HSQE Reporting: Near Misses & incidents are vastly different. We need to ensure these are reported correctly. There must be an understanding of these and how they differ to ensure these are reported correctly. SH to look into this.	SH	09.04.08
1.6	MUDFA Programme: impact on Infraco. GB to provide an overlay of the programme and link to Infraco works to show clear visibility of any impact (or not) on the Infraco programme.	GB	COMPLETE (See App.5)
1.7	Section 6 – BAA Fencing. This is on the critical path with potential to impact on Infraco works. Still do not have a date for this work being done. SC has contact at BAA and will escalate this week.	SC	COMPLETE (See App.6)
1.8	Section 5C – A8 Underpass. AD states that a report was issued with options to tie and they are waiting for a response. GB would like it noted that he did not receive this report. SC to confirm that the diversion, outwith the A8, is to proceed. Meeting with AD/Willie Kerber on Friday re same.	SC AD	COMPLETE 09.04.08
1.9	Rennies Isle Bridge: Drawing received yesterday. SC will forward to Damien Sharp who will instruct SDS. Same to be forwarded to MUDFA team.	SC	COMPLETE (Received 31.03.08)
1.10	Commercial: Joint AMIS/tie review of utility diversions based on IFC and latest information to update AFA.	GB/AM	COMPLETE
1.11	Next month's report should include a summary of the Revision 6 Programme: current against baseline. This needs to be clearer in the report.	GB	COMPLETE
1.12	Key Issues: next month's report should show separate headings showing issues that are actually stopping works from progressing together with actions on how these will be resolved.	GB	COMPLETE
1.13	Faber Maunsell: Procurement Issue. Clear decision needs to be made SC/SM to discuss.	SC/SM	09.04.08
1.14	Traffic Management: Issue with temporary pedestrian crossings; these must be of a permanent standard. We may have a way forward that meets CEC requirements, based upon draft spec from the Highways Agency. Review requirements.	KR	09.04.08



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 : 9 April 2008

Executive Summary

High Level View

Progress

		Period 13 (01.03.08 to 28.03.08)			Overall Performance to Date		
		PLANNED	ACTUAL	Variance	PLANNED	ACTUAL	Variance
TOTAL	Metres	2358	2276	-82	12112	10081	-2031
	Chambers	25	10	-15	104	54	-50
BT/Comm	Metres	1050	1154	104	5390	4504	-886
SGN	Metres	192	168	-24	841	623	-218
Scot W	Metres	780	504	-276	4400	3673	-727
Scot P	Metres	336	450	114	1167	967	-200
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

Post period end, the first reportable (RIDDOR) accident occurred on 2 April 2008. An AMIS operative suffered a fractured ankle as a result of dislodged material within an excavation. An interim report has been received, any necessary remedial action taken, and a formal review is planned for 7 April 2008 with the **tie** Project Director, the MUDFA Construction Director and the AMIS Project Director.

Implementation of Work Face Risk Assessment process will be rolled out within the next 2 weeks as an initial initiative following Wednesday accident.

2 no inspections carried out in the period:

TI/07/49 Shandwick place 1D. 1 x Observations, 2 x Actions Closed 07/03/08.

TI/07/50 Broomhouse Road 5B 2 x Observations, 5 x Actions closed 14/03/08.

There have been 6 X PU Strikes this period resulting in a utility strike rate of 2.64 compared with 2.8 for period 12. Yearly rate 1.52

The AFR at the end of Period 13 was 0.00

Progress to Revision 6 Programme

Works progressed in 6 areas:

- Constitution Street (1A)
- Leith Walk (1B)
- St Andrew's Square (1C)
- Princes Street (1C)
- Shandwick Place (1D)
- Gyle (5B)

Service diversions in the period were completed within 4% of the plan; however there has been no recovery of the previously reported slippage.

Cumulatively, the existing effect is a delay of 6 weeks on the affected sections. The root causes of these delays are in 4 main categories:

- Greater congestion of existing utilities than anticipated (principally affecting Scottish Water diversions)
- Increased temporary diversion provision
- Slower than estimated chamber construction for BT chambers
- Incomplete supply of supervisory and operative resource to meet the full demands of the Revision 6 programme and the enabling works. (AMIS addressing)

Specific recovery plans are being finalised for each of the problem areas with early implementation starting to show evidence of recovery.

These plans are being completed on 8 April 2008 and it will be necessary to confirm that acceptable actions are in place to meet any revised competent resource demand. This is likely to put further pressure on the supervisory and operative requirements from both AMIS and their subcontractor supply chain, particularly as additional work areas are programmed to commence in the next quarter. This will be reviewed realistically to ensure practical delivery is possible.

There is an opportunity to extend working hours (and recover lost production) within the Code of Construction Practice over the coming months with extended daylight hours. This is primarily in areas of low housing density or where businesses have been consulted and have voiced their support.

The summary impact on the REV 06 Programme critical path suggests that ~ 2 weeks delay is likely allowing for realistic implementation of the recovery plans to the MUDFA programme.

The effect of this, and any localised mitigation to avoid impacting on InfraCo, is being addressed as part of the detailed recovery planning.

Operations

1.0 Section 1A

1 – 12 (Lindsay Road – Ocean Drive)

Utility design IFC drawings awaited. Completion delayed whilst confirmation of final alignment of Tram through this section accepted and approved by Stakeholders. Works progressing on the basis of 'temporary' diversions at Rennie Isle and Tower Wharf Bridge.

13-15 (Ocean Drive)

Works complete based on IFC issued in June 2007. Awaiting revised design for Sheet 15 following tram realignment to be issued by SDS

16-21 (Constitution Street)

Works outwith the LOD, around Constitution Street have commenced.

Planned Progress:

Construction of major BT chamber at the Foot of the Walk to commence in Foot of the Walk junction

Outside of LOD works

- Scottish Power – Phase 2 to commence on 24 March 2008 in conjunction with MUDFA TM arrangements for Foot of the Walk/Constitution Street
- SGN – commenced 28 January 2008. Original completion due on 29 February 2008.
- Scottish Water: Design works to be completed
- Clarification of CDM responsibilities with SU's

Closure of Constitution Street and associated Traffic Management at the Foot of the Walk to go-live on Sunday 30 March

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 will commence on 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 provided to tie on 20 March 2008 for discussion at meeting of the 9 April 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.

1.1 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

Planned Progress

MUDFA diversions:

1780 lm of utility diversions comprising: 180mm and 500mm Gas; 180mm Water; BT chambers and ducts; SP HV and other telecoms (Thus, Virgin Media and Cable and Wireless)

Actual Progress

MUDFA diversions:

45% of planned output achieved in the period. (808 lm)

The installation of temporary traffic signals at Leith Walk/Manderston Street junction has deferred 6 no. diversions (SGN, BT, SW and SP) until MUDFA works at the Foot of the Walk are complete.

Actions

MUDFA diversions

- Required resources to achieve output not in line with programme demands. Meeting arranged with AMIS on 8 April 2008 to develop action and recovery plan.
- Temporary TM requirements for FoW impacted on planned diversions. These are being reschedule to latter period of section programme.

- Technical solutions to overcome congested areas awaiting approval from Utility organisations, primarily BT and SW. These are being pursued through the technical team.

tie/AMIS are evaluating options as to how Leith Walk road crossings can be completed. One option is to reduce Leith Walk to one way (Southbound) with the return flow being directed via Easter Road – this under review presently.

Sheets 27-31 (Balfour Street to McDonald Road)

Planned Progress

MUDFA diversions

3680 lm comprising: 355mm Gas; 355mm and 180mm Water; BT chambers and ducts; and other telecoms (Thus, Virgin Media and Cable and Wireless)

Trial holes on Southbound side of Leith Walk Rail Bridge

Actual Progress

MUDFA diversions:

81% output achieved in the period (2680 lm). SW temporary diversions and availability of resources impacting on output.

Further trial holes carried out on the Leith Walk Railway Bridge to determine available depth of cover. Available provision over bridge for utility diversion very limited for number of utilities.

Actions

MUDFA diversions

- Assessment of current resource and required ongoing to develop recovery plan. To be discussed at meeting of the 8/4/08.
- Work Package Plan to be produced for utility diversions required to cross the Leith Walk Rail Bridge

1.2 Section 1C

Sheets 32-38 (McDonald Road to York Place)

Awaiting issue of IFC drawings and schedules for this section. IFC drawings and schedules approval are being delayed by Scottish Power insistence on reviewing trackform provisions relative to the Leith Walk Cable Tunnel. Prior to approving documents.

Traffic Management proposals for McDonald Road to Greenside Place (Sheets 32-35) being developed by Faber Maunsell. Likely to adopt a 3-phase approach to the works around London Road Roundabout – subject to TMRP approval

Latest draft proposal for Picardy Place development (confirmed by CEC w/c 31 March 2008) being reviewed to assess overall impact on utility diversion designs presently out for approval to SUC's. BT utility being critical service at this location.

Works due to commence at this location 21 July 2008.

Sheets 39-41 (St Andrew Square)

Planned Progress

BT chamber and duct works in Dublin Street, York Place and St Andrew's Square – 73% chamber construction/538 lm ducting.

Actual Progress

46% metrage achieved (250 lm) against planned. Actual chamber completion of 44% against planned.

Actions

- Most output achieved in latter half of the period due to implementation of recovery plan with AMIS. Latter period output form would indicate recovery of programme within 1 week of target (ie. 1 week later than rev 06)

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

Diversions between the Mound and South St Andrew Street behind programme due to extent of existing services and requirements to alter/amend TM at key junction. Remaining works limited to:

Waverley Bridge: 1 no. gas and 1 no. water crossing to be installed

Diversions between The Mound and Castle Street are complete (excluding 1 no. water main connection).

SGN MP main in Hanover Street solution confirmed and agreed with SGN. Earlier investigations by **tie** have mitigated substantial additional diversionary needs and costs. Procurement of long lead in items has commenced. Works are due to commence 7 July 2008.

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

Shandwick Place closure and traffic diversion route went live on Saturday 1 March 2008 at 05:00. Enabling works were completed on schedule to enable the closure to be implemented.

TM measures implemented minimised potential traffic disruption. Early indications confirmed measures operating at optimum. Utility diversionary works commenced on 3 March 2008.

Planned Progress

MUDFA diversions (350 lm) comprising: 400mm SGN; SP HV; BT chambers and ducts; and other telecoms (Thus, Virgin Media and Cable and Wireless)

Actual Progress

First half of period output in line with programme. Latter half has indicated a reduction in output ~ 50% (~190 lm). Resources did not increase in line with programme

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

Actions

- Assessment of resources to meet accelerated programme to be reviewed at meeting of the 8 April 2008 and action plan developed accordingly.

1.5 Section 5A

All diversions identified in this section have been carried out or have been novated to Infraco. Proposed works within Infraco are required in advance of the diversions due to present ground levels in relation to proposed finish levels.

1.6 Section 5B

Sheets 6-13

The diversions in this section are novated to the Infraco. Proposed works within Infraco are required in advance of the diversions due to present ground levels in relation to proposed finish levels.

Sheets 14-20

Planned Progress

The excavation for the BTO chambers in the junction of Bankhead Drive/South Gyle Access completion and the chambers construction commencement.

The transmission cable ducting and other power cable diversions on Bankhead Drive to be 80% complete.

450mm DI water main due to be 90% complete.

Virgin Media duct and chamber diversion at South Gyle Access due to be 90% complete.

Actual Progress

Traffic Management proposal from AMIS was initially rejected by the TMRP. The trial hole for the main chamber located a MP gas main conflicting with the

proposed BTO chamber; Revised location has now been confirmed. This was not identified with the IFC documentation resulting in a delay to the commencement of the main chamber excavation and subsequent construction commencement.

Initial TQs from AMIS relating to the transmission cables have been responded to. However work has not commenced due to lack of resources being assigned to the works.

Initial delay to 450 WM due to failure of the existing water main – delaying progression of the works whilst SW carried out repairs. Inspections of the pipeline have confirmed no, requisite thrust blocks have been installed. The matter has been raised with SW. This will affect the methodology of the works, which is under review. Overall diversion length has increased by 25m. Earlier SDS design showed new main constructed through the proposed retaining wall – revised proposal requires the main to be diverted outwith the construction footprint of the proposed retaining wall.

VM diversion not commenced: no resource allocated.

Actions

- The critical path for the works section is tied to this chamber. AMIS to reschedule resources to maintain programme end date for this element of the work.
- AMIS/tie to review any outstanding information. AMIS to confirm start date for the transmission cable crossings. These are not on the critical path.
- Completion of the water main is critical to completing Phase 1 of the traffic management. AMIS/tie to review the remaining work requirements.
- AMIS to ensure suitable resource for this diversion are in place in next period.

1.7 Section 5C

Awaiting receipt of IFC drawings and schedules from SDS and this has significantly impacted the programme. Work was due to commence at the end of February 2008, however, the earliest start date is now 21 April 2008 in the Gyle Centre Car Park. SDS design for the diversion of the 33kv cable and 450mm water main did not take cognisance of existing petrol interceptor chambers along the route. Works in the car park are to be completed by 23 May 2008, as agreed with the Gyle management. The delay in the issuance of IFC documentation and apparent analytical errors are jeopardising this date and commencement of Infracore in this area.

Concerns have been raised by tie/AMIS over the SDS design of the BTO chamber adjacent to the Gyle Broadway slip regarding it's constructability at its current location. MUDFA await re-issue of the cross section by SDS to demonstrate that the proposed diversion can be constructed. The chamber is for the critical 24-way diversion to the south of the A8 underpass.

1.8 Section 6 – Gogar Depot

800mm Water Main design has been accepted in principle by SW with minor comments. Issue of IFC drawings is critical to allow commencement 28 April 2008. 800mm diameter valves procurement has commenced.

The IP Gas Main diversion is currently forecast for completion by end April 2008.

The programme for the BAA Fence removal was issued 20 March 2008 showing a completion date of 30 May 2008. Discussions are ongoing with BAA to discuss any potential acceleration to enable the earthworks to proceed earlier. The water main installation cannot be completed without the fence being moved.

Programme developed which allows commencement of Infracore as planned 2 June 2008, based on latest dates regarding BAA, SGN and SW diversions.

See Appendix 1: Progress Curves

2.0 Traffic Management

Current

2.1 Section 1A

Constitution Street closure (Phases A, C, E)

2.2 Section 1B

Contraflow on the Northbound carriageway on Leith Walk between Dalmeny Street and Brunswick Street

Contraflow on the Southbound carriageway on Leith Walk between Balfour Street and Foot of the Walk

Foot of the Walk: Closure Phase 1

2.3 Section 1C

Lane 1 & Lane 2 closure Southbound on the East side of St Andrew's Square between Princes Street and York Place

Lane 1 closure Eastbound on Princes Street between South St David's Street and South St Andrew's Street

Closure of Lane 1 on York Place Eastbound at North St Andrew's Street junction

2.4 Section 1D

Shandwick Place closure.

2.5 Section 5B

Cultins Road: Road narrows

Bankhead Drive/South Gyle Access: Southbound bus lane closed

Bankhead Drive: Westbound Lane 2 closed

Proposed

2.6 Section 1C

Traffic Modelling and design for Leith Walk/London Road has been completed and approved in principal by the TMRP. Implementation 28 April 2008.

2.7 Section 1C

Enabling works due to commence 9 April 2008 for a period of 3 weeks which requires the reduction of the number of running lanes in Leith Walk to 2 & 1 that is bus lane and 1 general traffic. Relocation of 2 bus stops

York Place: Existing restrictions to be altered to enable the ducts to be progressed towards St Andrew's Square. 3 phases of TM. Phase 1: Complete. Phase 2: Approved. Phase 3 & 4: Under review; 7 April 2008.

2.8 Section 1D

Traffic Modelling and design for Phase 2 City Centre works completed. TMRP approval has been given. Minor alterations to requirements for signage to be addressed. Implementation 28 April 2008.

Enabling works due to commence at Phase 2 City Centre 7 April 2008. Minimum disruption to traffic

2.9 Section 5C

Morrison's car park. Approved.

See Appendix 2: Traffic Modelling

Stakeholders

3.0 Lothian Buses

Implementation of Shandwick Place closure went very well with good support on the day from AMIS. The main lesson learnt was that support later in the day, especially in the case of a weekend implementation, needs to be provided so that problems such as arose in the afternoon with traffic signal phasing can be addressed there and then.

Discussions are continuing as to how the MUDFA works are going to be phased across the particularly sensitive Annandale Street junction and in Elm Row. So far TEL's needs are being accommodated.

The injury to an AMIS operative on South St Andrew Street where a bus (not necessarily LBs) hit the base of an element of HERAS fencing, moving it onto operative's foot, is indicative of an ongoing problem of AMIS staff moving the limit of the worksite into the area of live traffic marked out by the cones. This is being addressed by AMIS.

Implementation of the planned diversions consequent upon the Constitution Street closure did not happen as planned but early realisation of risk of Manderston Street and Dalmeny Street junctions not being completed in time led to sensible re-appraisal of plan. Implementation of diversion(s) went well although the bus stop on Duke Street was out of action because of incorrect placing of the traffic management; problems quickly responded to except for the tree trimming on Gordon Street. CEC action.

Other bus operators have confirmed the bus diversion route options they propose to use for West End phase 2: the result is that only Stagecoach will need to use George Street for this purpose.

We are concerned that there is a need for greater clarity over the programme for when future major phases are planned to start (e.g. what effect the delayed start to West End phase 1 will have on changeover to phase 2 and in turn on the implementation of the start of work at the Mound junction)

We are also concerned at the length of time it is taking to resolve the Scottish Water issue at South St David Street as delays of this nature have the potential to disrupt the programme. In this case, the work should have been finished mid-February but has been at a standstill since February with 4-6 weeks outstanding work.

4.0 CEC

TMRP

In general the TMRP is an effective and practical group to address the temporary traffic management arrangements. The appropriate parties are represented and the approach has been constructive and practical.

However there is a practice of AMIS using the group as a sounding board or indeed a design panel rather than a review group. While early input from the stakeholders may assist the development of temporary layouts the group's primary focus should be approving detailed layouts.

An example was the tabling of a proposal to close South Gyle Access without any indication of how this would be managed and how access to Edinburgh Park and the Gyle Shopping Centre would be maintained. Further investigation resulted in the works being progressed without the closure being required.

Traffic Signals

The interface between the contractor and the Council's Traffic Signals Section has created some difficulties. These relate to the following:-

- Layouts not in accordance with regulations
- Works not being ready for inspection /approval when staff arrive on site
- Failure to rectify installations within agreed timeframe especially where the outstanding issues relate to pedestrian safety.

Programme

Programme should be revised to reflect the current progress

5.0 Communications

5.1 Achievements in the month:

Coverage on Shandwick Place included in Outlook Spring Publication: published end of March 2008.

Press briefing held for Constitution Street works

Tram Construction Update 3 produced for Constitution Street. 5,000 printed and distributed to: local businesses, community councils, councillors, libraries, Lothian Bus Shops and garages. Also distributed by email to tie staff and partners.

Production and distribution of March fact sheet.

Ongoing updates to Trams website

4,000 notification letters sent to residents and businesses in the London Road roundabout area.

Confirmed sponsorship of 'Spirit of Leith' stand at the Leith Festival (30 May – 8 June 2008)

Media coverage was featured in the Evening News, Scotsman, Herald, BBC, GMTV, Radio Forth and the trade press. This included: demolition of Caley Ale House, removal of taxi ranks, funding for Line 1B, archaeological surveys, development along the route and tram environmental benefits.

5.2 Planned activities in the month include:-

Media coverage of contract signing and upcoming work sites

Produce Update for London Road roundabout works starting end April 2008.

Third Shandwick Place update to be produced distributed to local businesses and residents.

Events: Sponsorship of Chamber of Commerce Premier Dinner; Presentation to Institute of Civil Engineers; Exhibition at Telford College 'Green Day'.

5.3 Site works

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

5.4 Customer Interaction Cycle

Inbound demand continued to rise reflecting the increased notification send out and intensity of MUDFA operations. There were in excess of 150 inbound enquiries in the month, the second highest recorded. The analysis is shown in the report appendices.

Proactive contact by Tram Construction Advisers remains at a high level and plans are at an advanced stage for further recruitment to reflect the increase in active work sites.

5.5 Stakeholder Engagement

Business Support: The activity in this area continues to build reflecting the high intensity of the MUDFA programme. More than 130 business applications have been accepted and the cumulative support exposure now stands in excess of £500,000.

5.6 Enquiry and Engagement Activity Statistics

Detailed results for the month are contained in the report appendices.

See Appendix 3: Communications Report

6.0 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.

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 April 2008, due to additional requirement to survey the route of the diversions.

RAT's proposal 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. Reviewing areas wherein non critical activities within the MUDFA programme

can be rescheduled in lieu of areas of a greater criticality to the Infracore programme. Ongoing development on both fronts. Revised design programme impacting on ability to obtain clear 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 to verify alternative diversions adjacent to Lindsay Road.

7.0 Key Issues/Blockers

SGN 30" gas main at the Mound: Conclusion of commercial agreement regarding minimum diversion required. Procurement process is ongoing to mitigate any delays.

SP dead cables in Shandwick Place: Resolution achieved regarding Scottish Power claim to berth and connectivity of existing dead cables – 50/50 split on actual costs.

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.

Scottish Water acceptance of the Gogar 800 water main to enable issue of IFC documents; agreement reached in principle.

Section 5C IFC drawings received 26 March 2008 these were reviewed and subsequent amendments required due to poor quality of SDS submission.

SGN: Service connection to existing tenements. AMIS reluctant to go into direct contract with SGN due to historical commercial disputes. We have requested that SGN add this to tender for works.

Section 7B: Procurement of D&B between AMIS/Carillion and Grontmij ongoing. Commencement of this section delayed. Earliest commencement in May 2008.

Changeover in AMIS Project Director: Concerns raised over impact on project progress and potential loss of support staff. AMIS/Carillion have confirmed their commitment to ensuring this does not affect the project.

See Appendix 4: Risk Register



MUDFA Sub-Committee Meeting

AGENDA ITEM 3

Appendices



MUDFA Sub-Committee Meeting

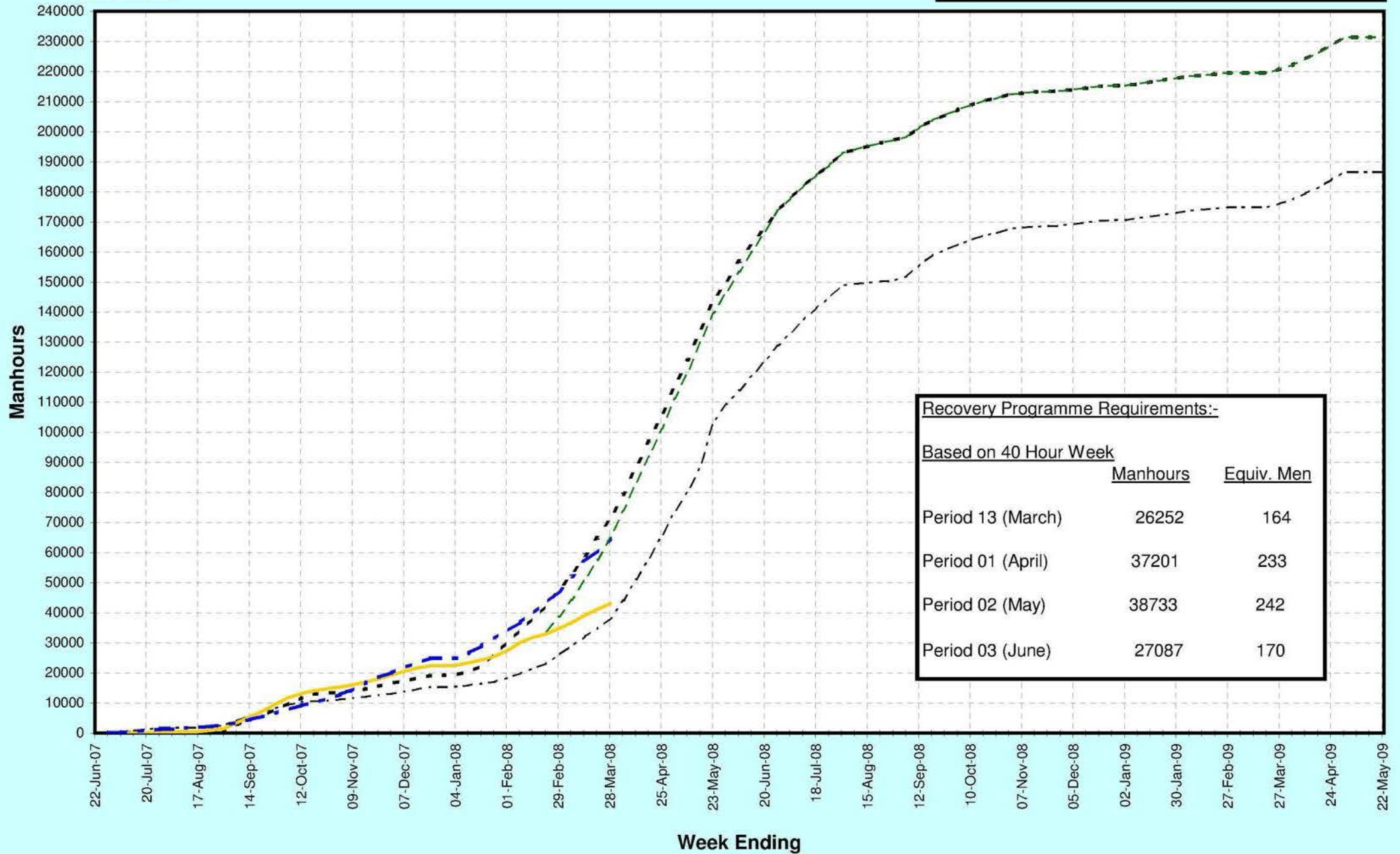
APPENDIX 1

Progress Curves



Edinburgh Tram Project MUDFA - Overall Manhour Progress (Rev 06 Baseline based on Approved WO Measure + AFA)

- Cum Original Budget Hours AFA
- - - Cum Current Budget Hours AFA + Approved WO: 232284
- tie Cum Earned Value Hours: 43021
- - - WO Cum Actual Hours: 64548
- - - Cum Recovery Programme



Recovery Programme Requirements:-

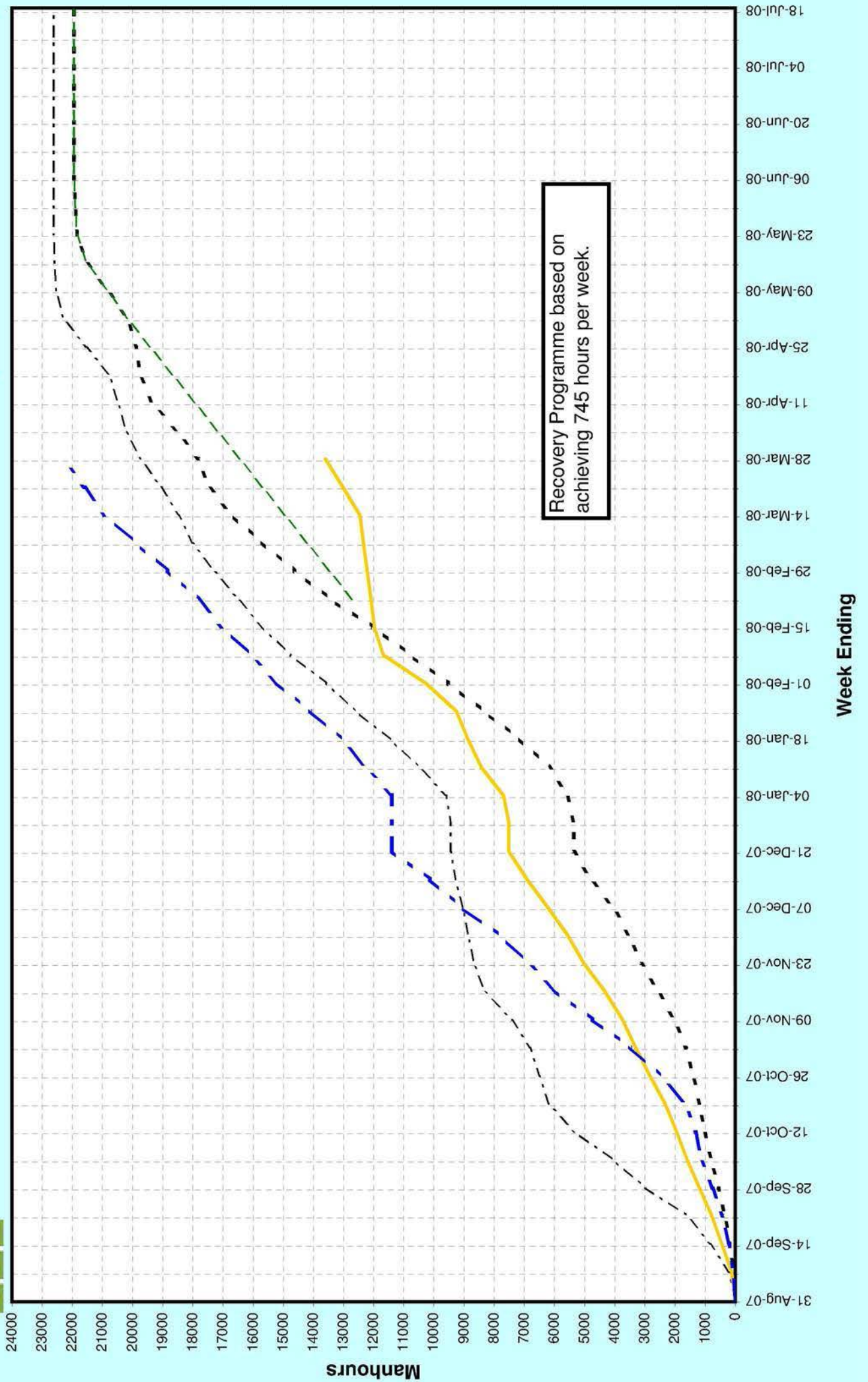
Based on 40 Hour Week

	Manhours	Equiv. Men
Period 13 (March)	26252	164
Period 01 (April)	37201	233
Period 02 (May)	38733	242
Period 03 (June)	27087	170



Edinburgh Tram Project
MUDFA - WO 1BWSI001/001 - McDonald Road to Balfour Street
(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 17816
- Cum Earned Value Hours: 13600
- - - Cum Actual Hours: 22283
- - - Cum Recovery Programme

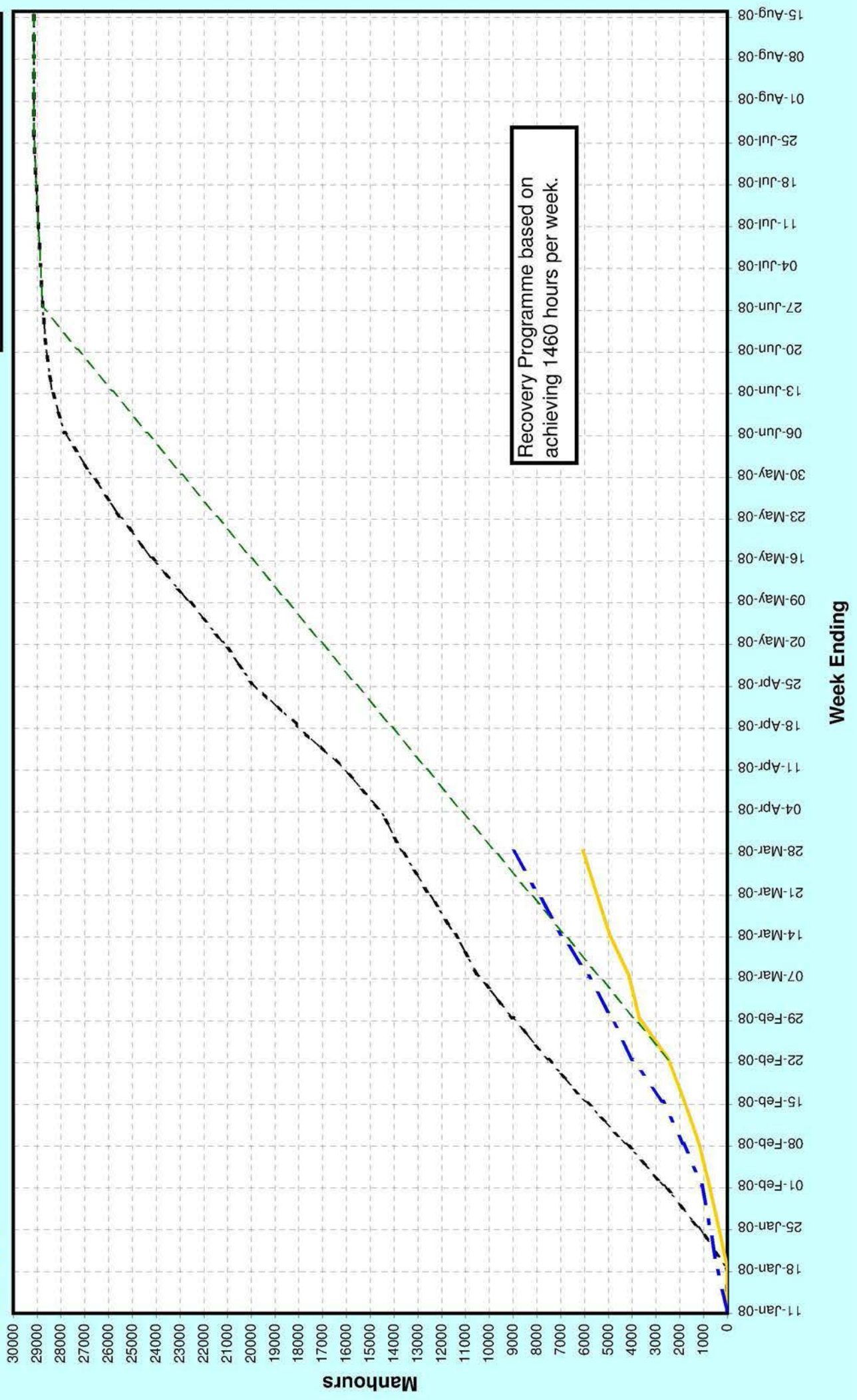


Recovery Programme based on achieving 745 hours per week.



Edinburgh Tram Project
MUDFA - WO 1BWSI001/002 - Balfour Street to Foot of the Walk
(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 13683
- - - Cum Earned Value Hours: 6060
- - - Cum Actual Hours: 8996
- - - Cum Recovery Programme



Recovery Programme based on achieving 1460 hours per week.

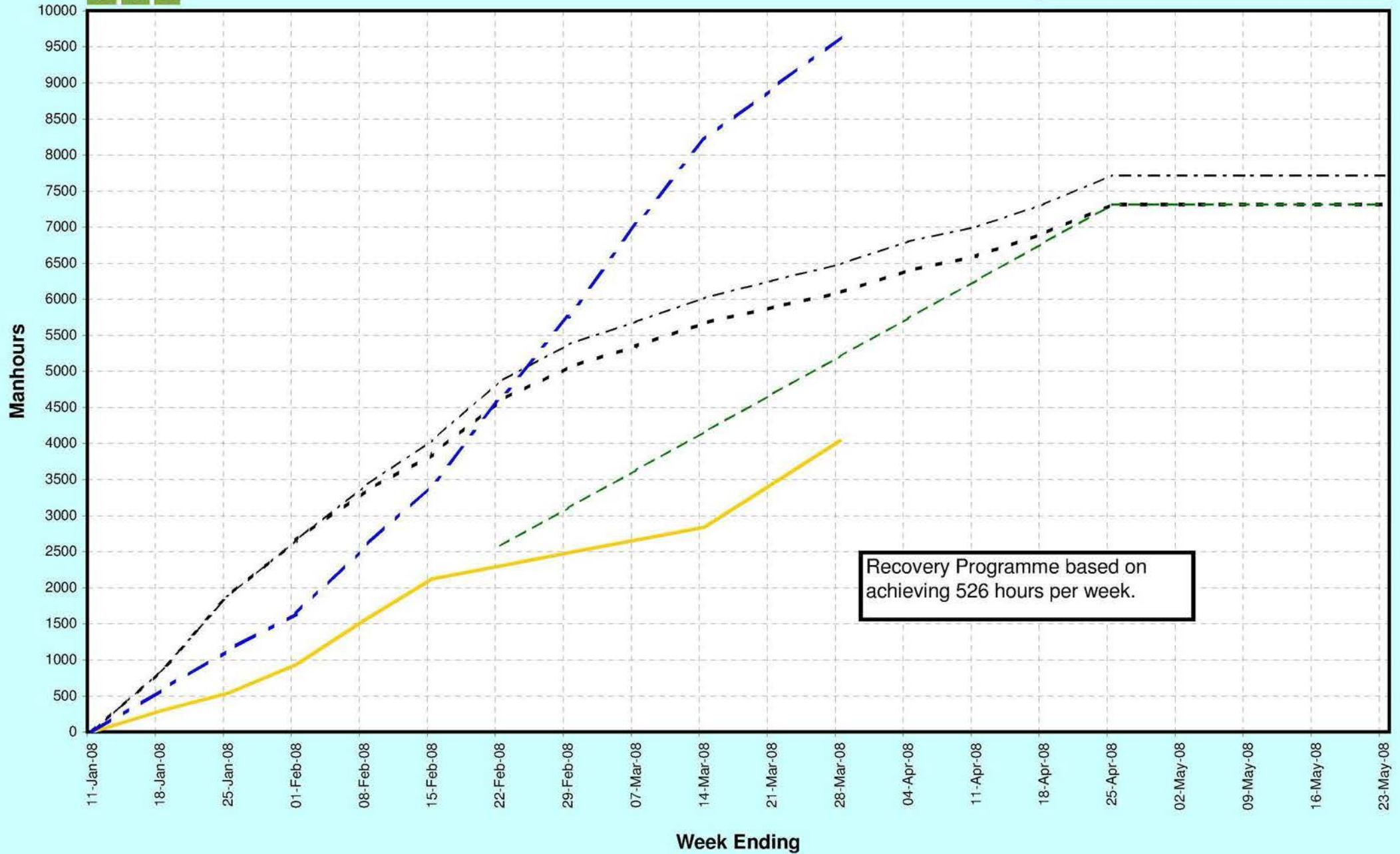


Edinburgh Tram Project

MUDFA - RAT 1C-1 - BT Works - St Andrew Square

(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 6089
- tie Cum Earned Value Hours: 4039
- Cum Actual Hours: 9627.5
- - - Cum Recovery Programme

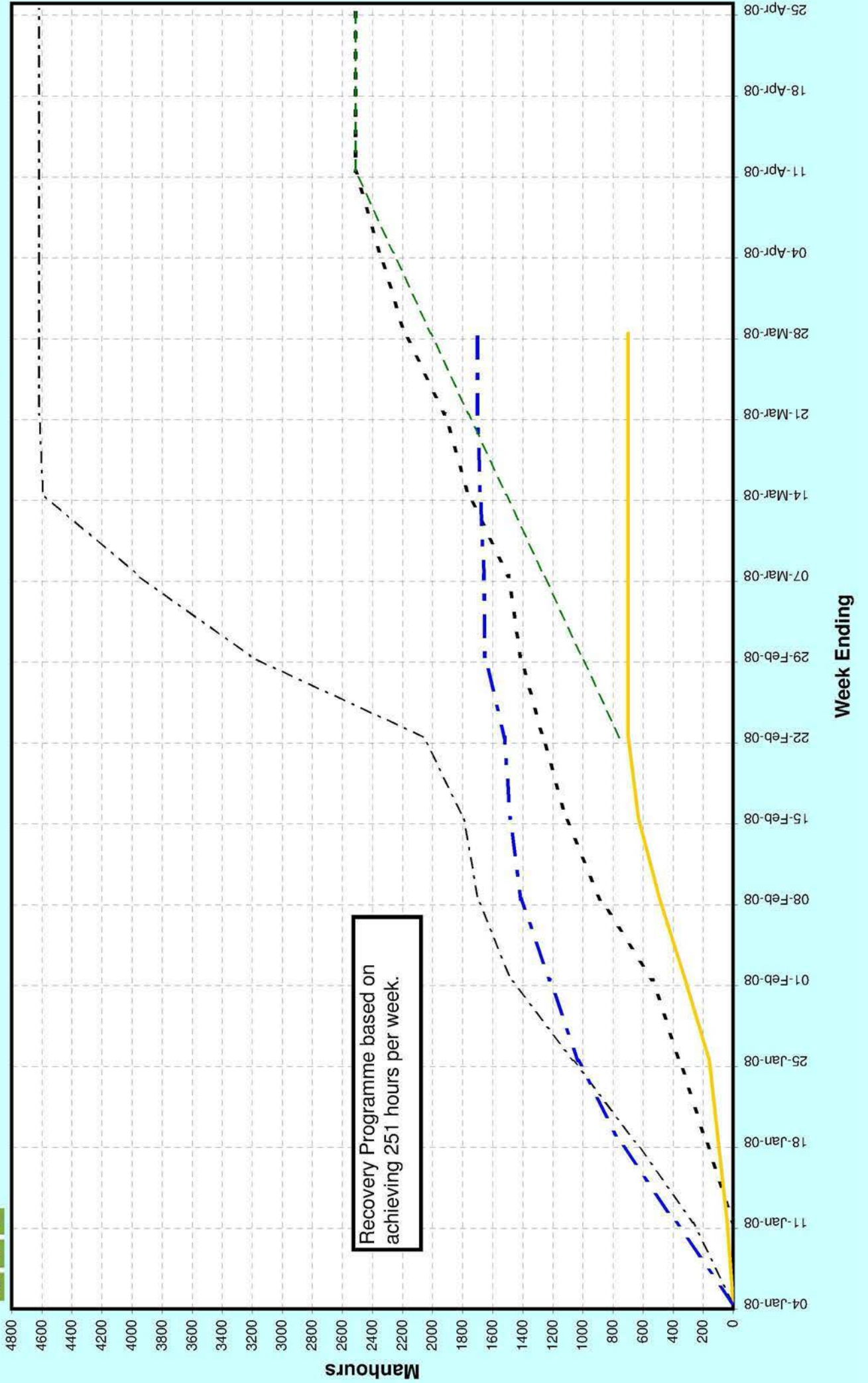


Recovery Programme based on achieving 526 hours per week.



Edinburgh Tram Project
MUDFA - WO 1CWSI002/001 - The Mound to St Andrew Street
(Rev 06 Baseline based on Approved WO Measure)

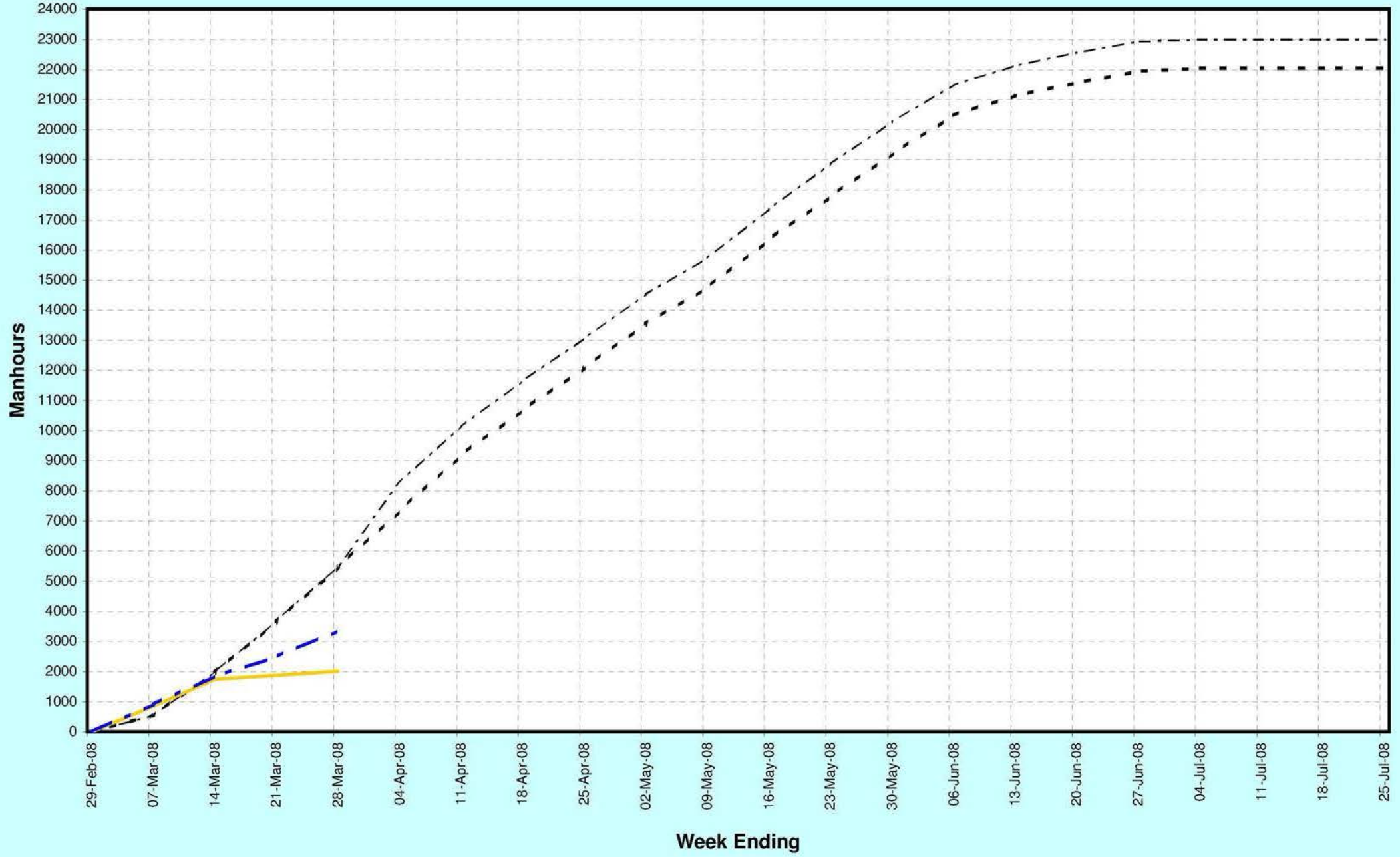
- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 2185
- tie Cum Earned Value Hours: 698
- - - Cum Actual Hours: 1701
- - - Cum Recovery Programme





Edinburgh Tram Project
MUDFA - WO 1DWSI/004/001 - Shandwick Place WE to South Charlotte St Junction
(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 5474
- tie Cum Earned Value Hours: 2011
- - - Cum Actual Hours: 3353



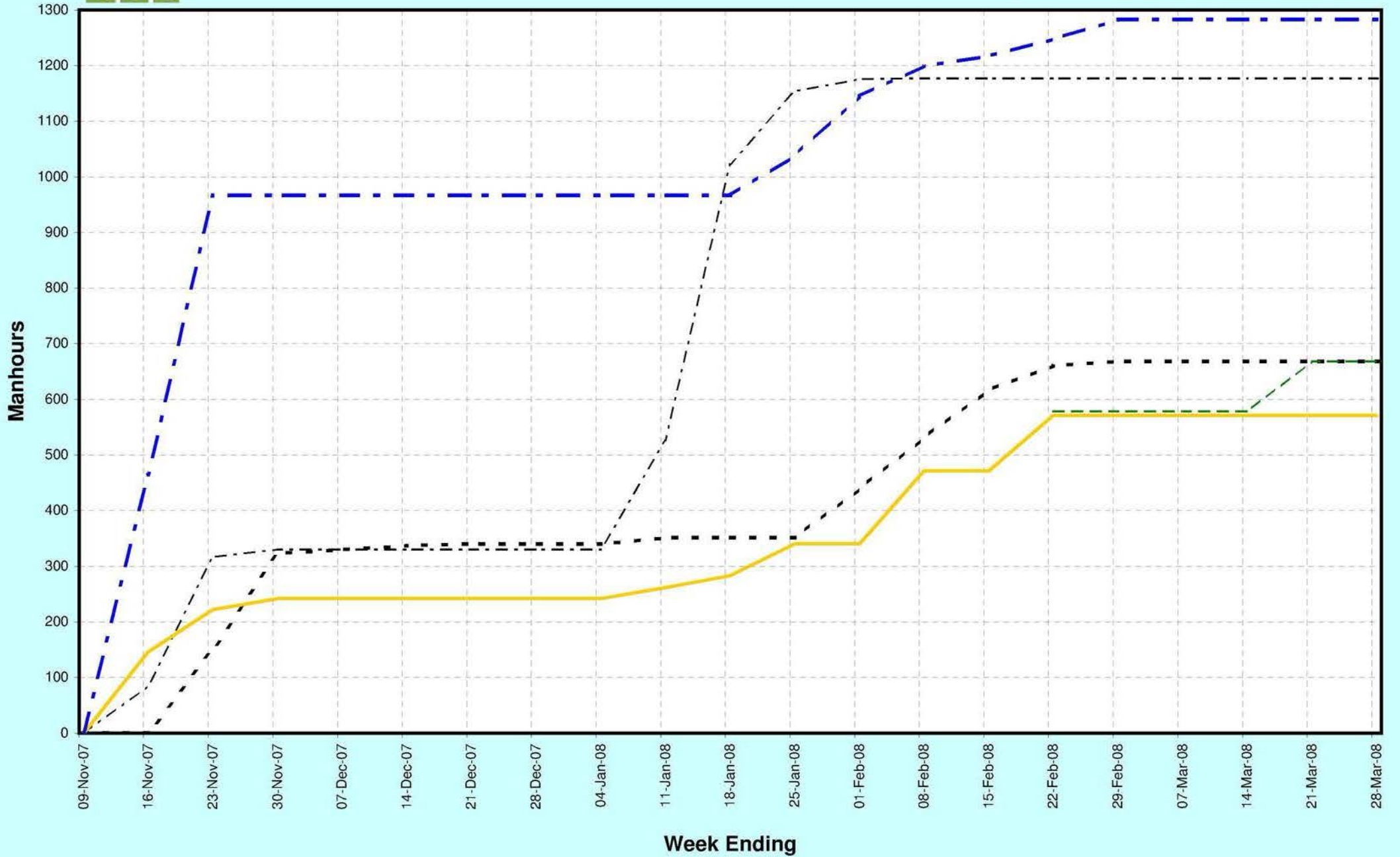


Edinburgh Tram Project

MUDFA - WO 1DWSI005/002 - South Charlotte Street to Castle Street West

(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 668
- tie Cum Earned Value Hours: 571
- - - Cum Actual Hours: 1282.5
- - - Cum Recovery Programme

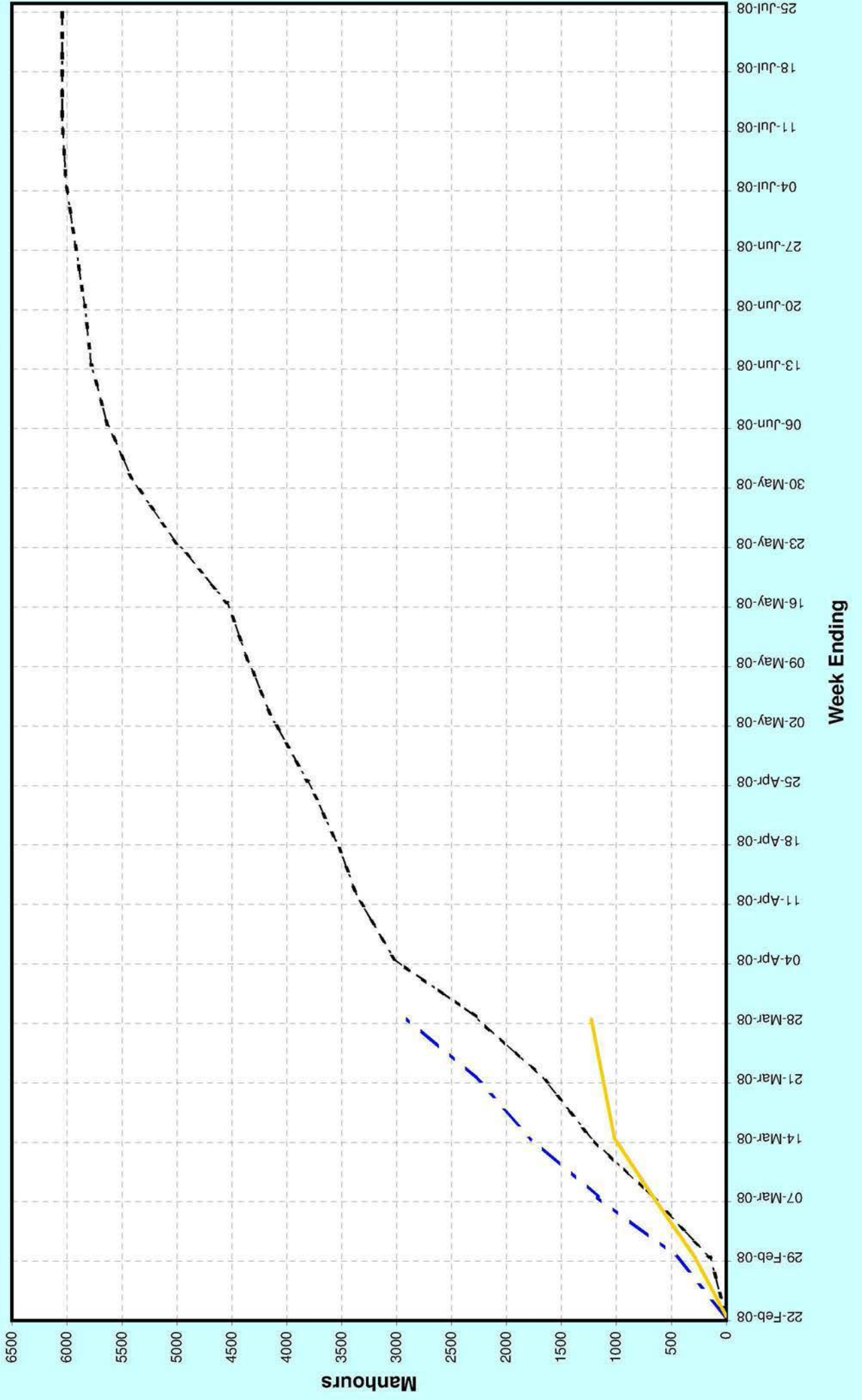


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Edinburgh Tram Project
MUDFA - WO 5BWSI/001/001 - Edinburgh Park Tram Stop to Broomhouse Road
(Rev 06 Baseline based on Approved WO Measure)

- - - Cum Original Budget Hours
- - - Cum Current Budget Hours: 2253
- - - Cum Actual Hours: 2897
- tie Cum Earned Value Hours: 1228





**Edinburgh Tram Project
MUDFA Progress Summary
(Metreage Progress per Utility)**



UTILITY		Scope		Period 13 2007/08 from 01-Mar-08 to 28-Mar-08			Overall Performance to Date			Chambers In Progress	Removed Through Scope Change To Date
				PLANNED	ACTUAL	Variance	PLANNED	ACTUAL	Variance		
Scotland Gas Networks	Metres	192	147	-45	841	602	-239		56		
Scottish Power	Metres	336	254	-82	1167	771	-396		291		
Forth Ports Power	Metres	0	0	0	314	314	0		53		
Scottish Water - Clean	Metres	780	525	-255	4400	3694	-706		152		
Scottish Water - Foul	Metres	0	0	0	0	0	0		60		
BT Openreach	Metres	793	832	39	3234	2615	-619	19	566		
	Chambers	10	6	-4	52	32	-20		10		
Cable & Wireless	Metres	42	35	-7	1172	1163	-9	0	13		
	Chambers	6	0	-6	17	9	-8		0		
Virgin Media	Metres	77	27	-50	712	446	-266	1	622		
	Chambers	7	8	1	29	16	-13		4		
Thus	Metres	138	40	-98	272	60	-212	0	32		
	Chambers	2	0	-2	6	1	-5		0		
Verizon	Metres	0	0	0	0	0	0	0	0		
	Chambers	0	0	0	0	0	0		0		
ALL Telecoms	Metres	1050	934	-116	5390	4284	-1106	20	1233		
	Chambers	25	14	-11	104	58	-46		14		
TOTAL	Metres	2358	1860	-498	12112	9665	-2447	20	1845		
	Chambers	25	14	-11	104	58	-46		14		

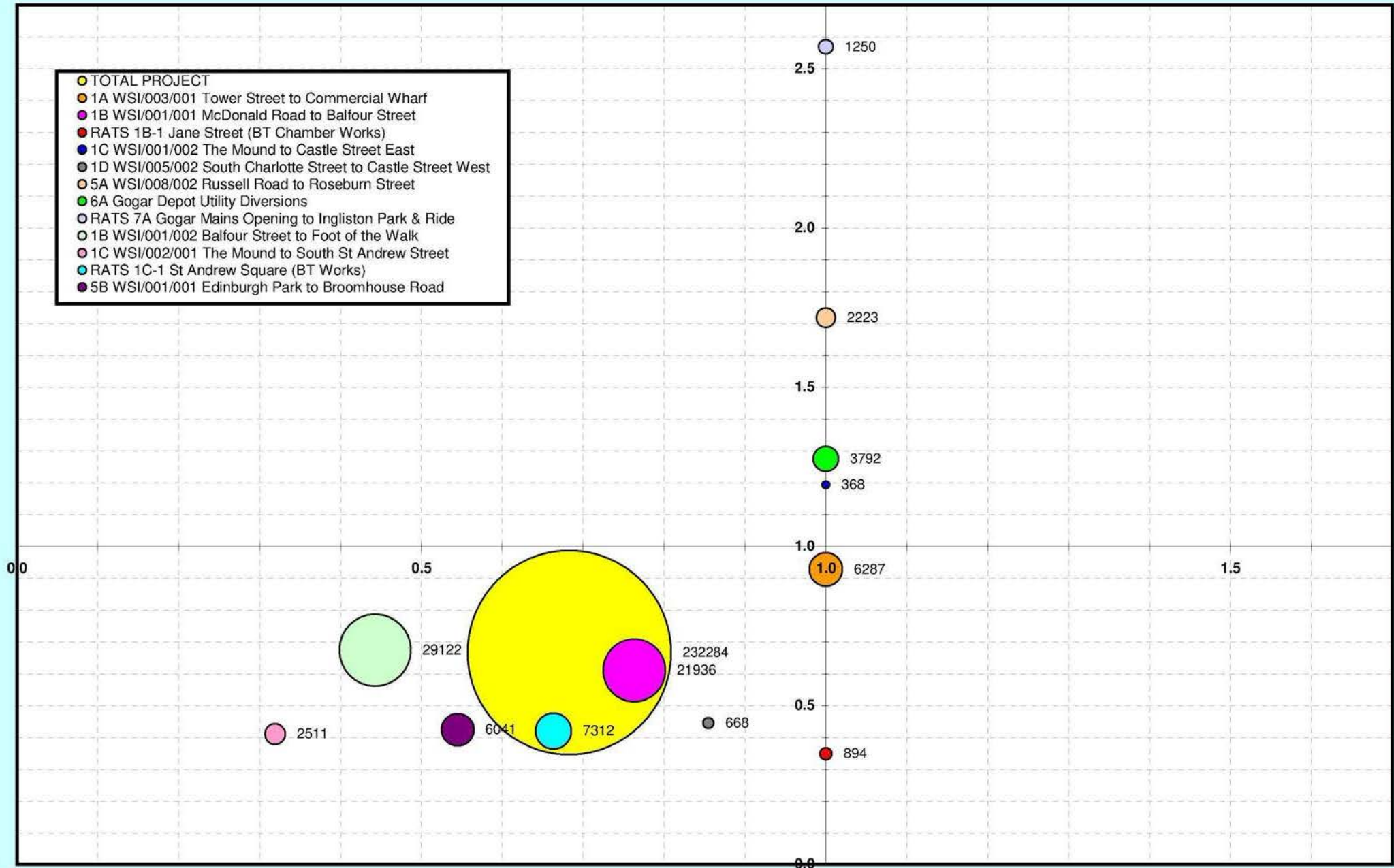
NB: 1. Period 13 Actuals for metreage are based on 4 Weeks Actuals.
2. Period 13 Actuals for Chamber works are based on 4 week actuals.



Edinburgh Tram Project MUDFA Work Orders Schedule & Cost Performance Index Status - we 28th March 2008

CPI

- TOTAL PROJECT
- 1A WSI/003/001 Tower Street to Commercial Wharf
- 1B WSI/001/001 McDonald Road to Balfour Street
- RATS 1B-1 Jane Street (BT Chamber Works)
- 1C WSI/001/002 The Mound to Castle Street East
- 1D WSI/005/002 South Charlotte Street to Castle Street West
- 5A WSI/008/002 Russell Road to Roseburn Street
- 6A Gogar Depot Utility Diversions
- RATS 7A Gogar Mains Opening to Ingliston Park & Ride
- 1B WSI/001/002 Balfour Street to Foot of the Walk
- 1C WSI/002/001 The Mound to South St Andrew Street
- RATS 1C-1 St Andrew Square (BT Works)
- 5B WSI/001/001 Edinburgh Park to Broomhouse Road



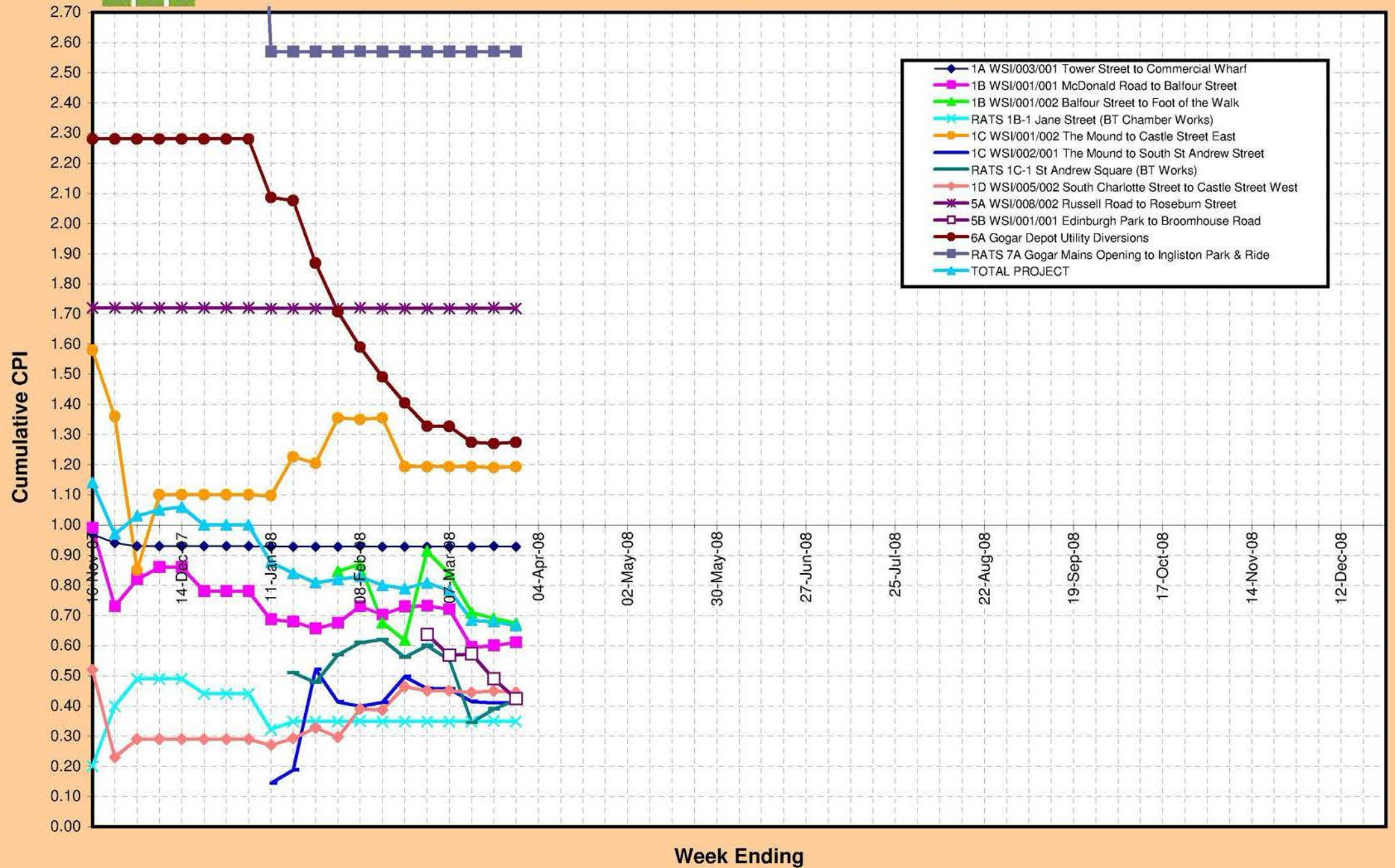
SPI



Edinburgh Tram Project

MUDFA - Work Order Cost Performance Index Trend

(Rev 06 Baseline based on Approved WO Measure)





MUDFA Sub-Committee Meeting

APPENDIX 2

Traffic Modelling

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

Location of Works	Current Modelling and TM Desgn 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 RA	No works actioned	28/04/2008	18/02/2008	17/03/2008
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/the Mound	TM modelling target commencement mid March	07/07/2008	28/04/2008	26/05/2008

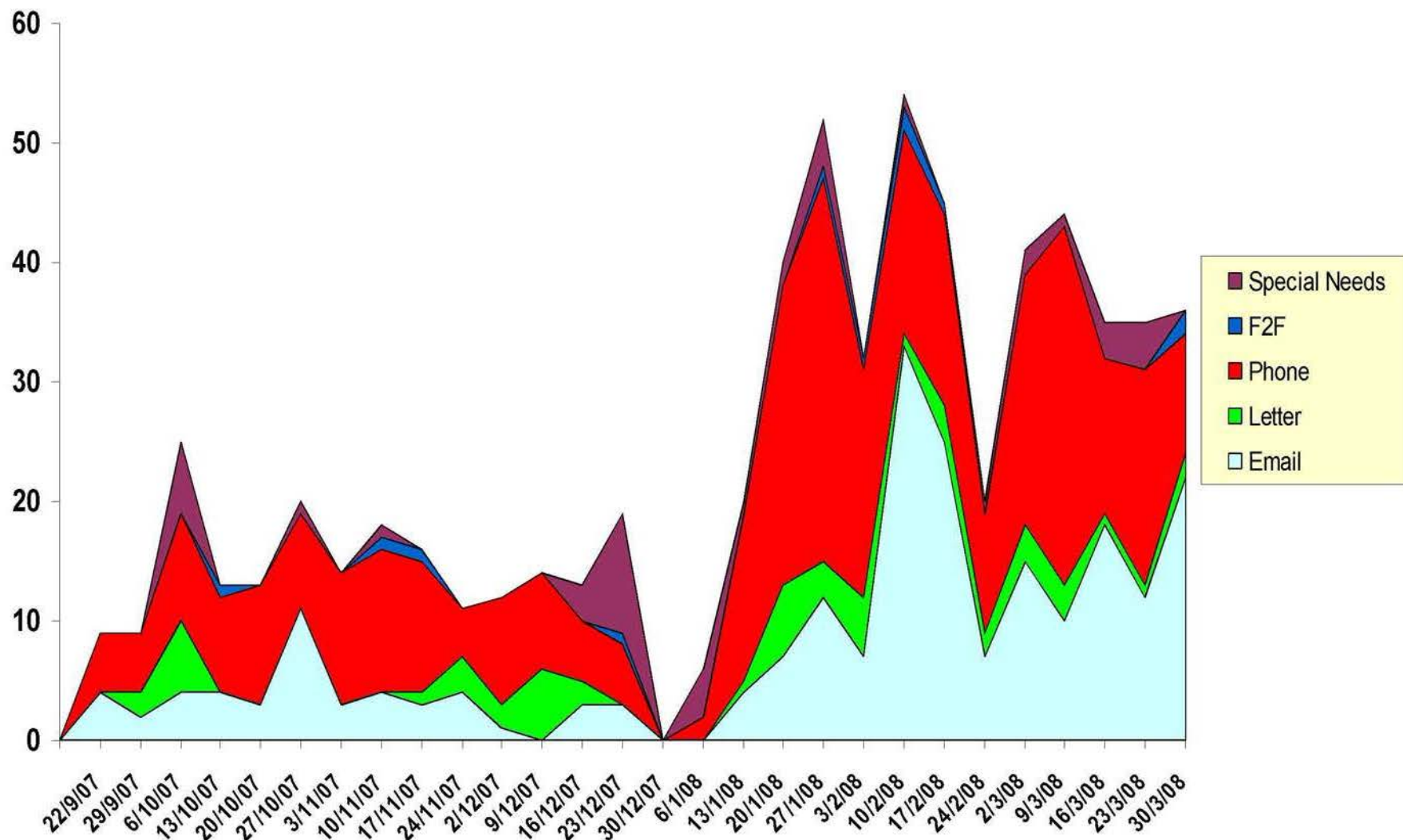


MUDFA Sub-Committee Meeting

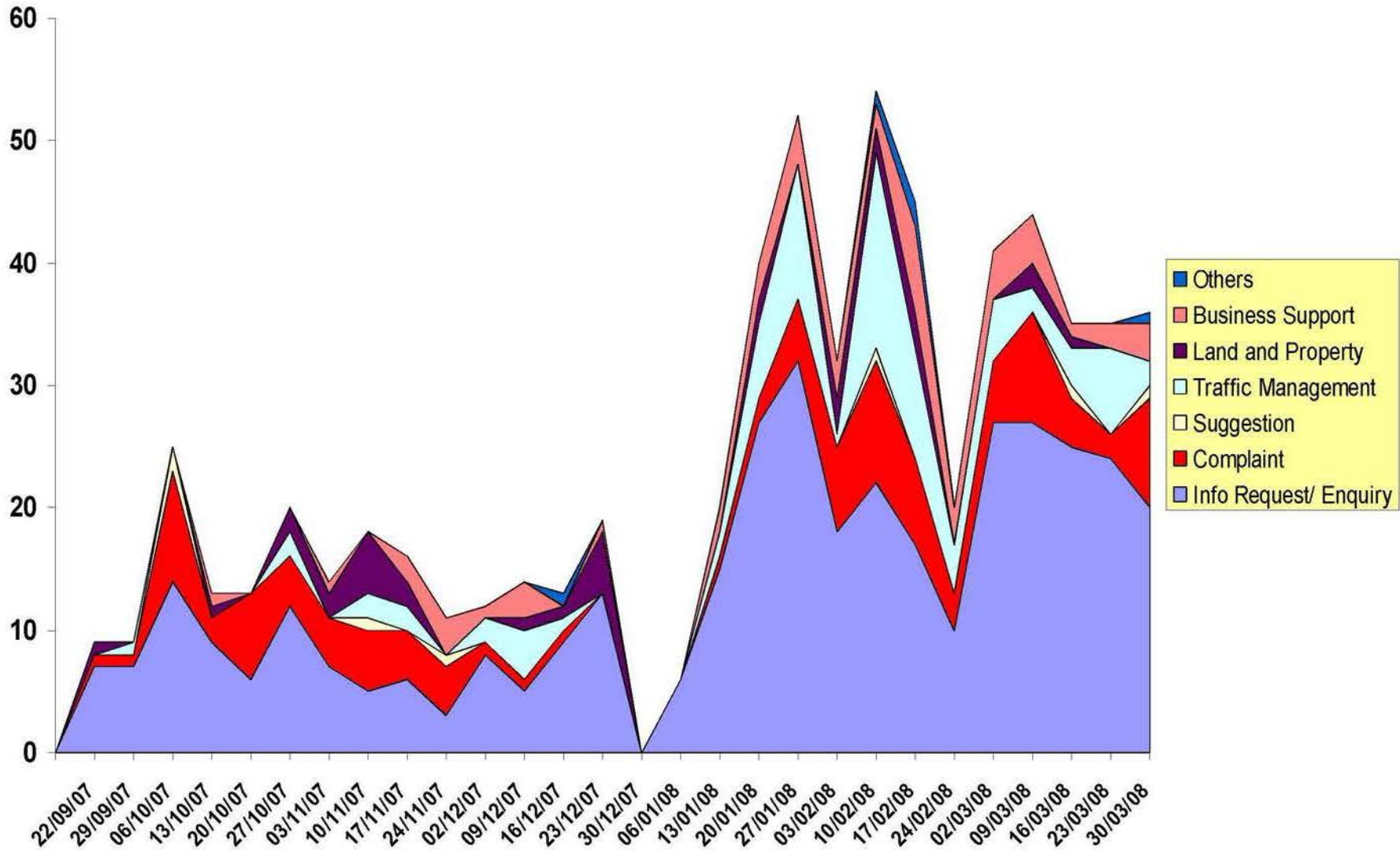
APPENDIX 3

Communications Report

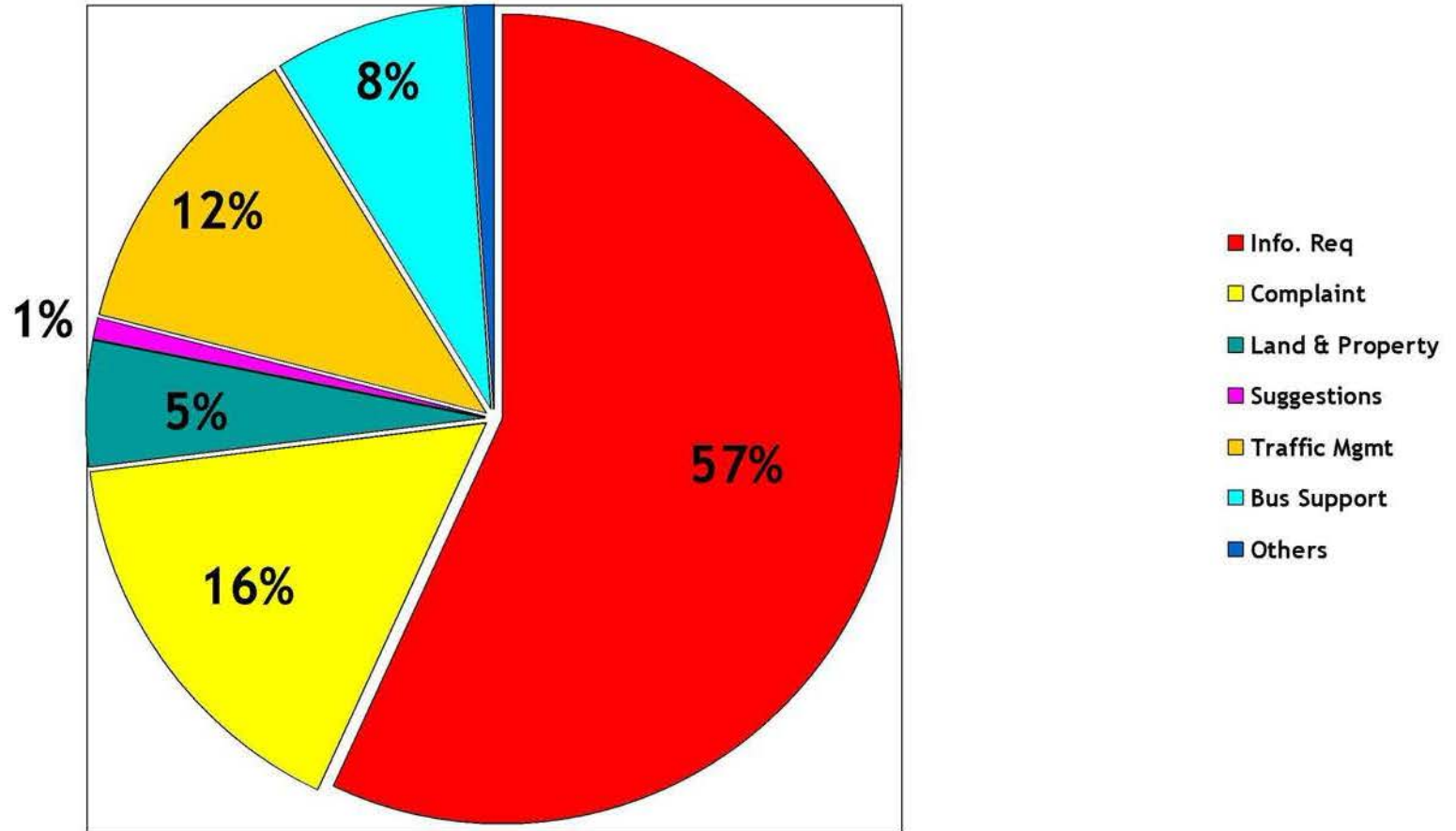
Enquiries by Contact Type period ended 30/03/08



Enquiries by Contact Reason period ended 30/03/08



Enquiries by Contact Reason – Sept '07- Mar'08



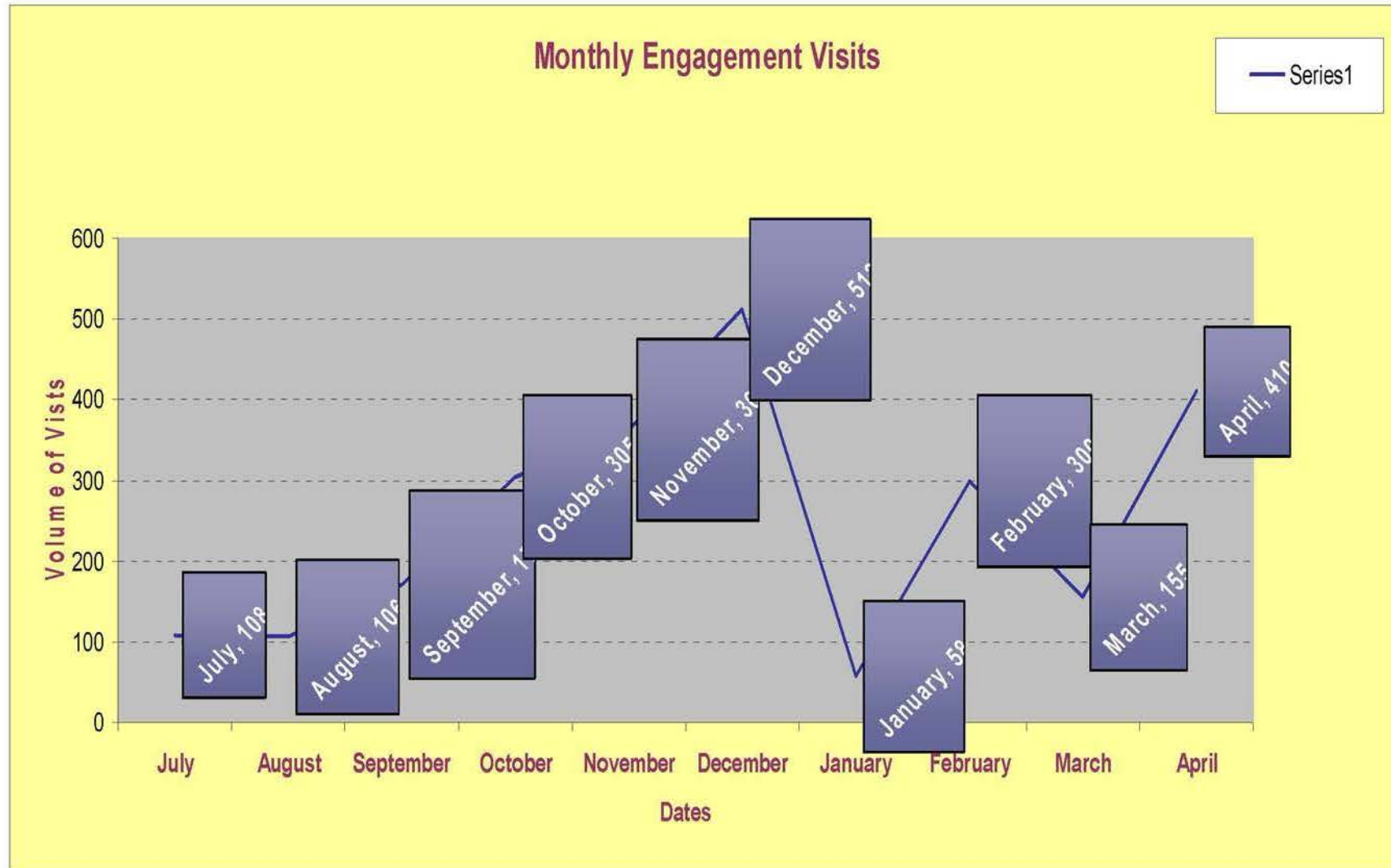
Analysis of Complaints- period ended 30/03/08 (1)

No.	Date	Complaint Description	Resolution
1	03/03/2008	Complaining as losing business, says no one has been working outside his shop for a while and he is having problems getting deliveries etc	TCA visit. Explanation given
2	03/03/2008	Customer complaining about the amount of soil sitting outside his house which is getting dragged in when walking. Also asking if cracked slabs are going to be replaced.	TCA visit, slabs to be replaced
3	04/03/2008	Says Carillion operatives began to drill outside tenants house early hours of this morning. She is a nurse and would like an apology and wants to know why work is taking place outside	Enabling works in advance of West End works, explanation given
4	03/03/2008	Noise Issues on Leith Walk	Rationale given for Pilrig Street traffic management
5	03/03/2008	Noise in Leith Walk	Rationale given for Pilrig Street traffic management
6	04/03/2008	Noise and Traffic Queuing in Leith Walk	Illegal traffic queuing referred as a police enforcement issue
7	04/03/2008	Website update not showing Shandwick Place info.	Email crossed with new website update.
8	04/03/2008	Letter from student giving opinion on Trams presumably as part of a school project	Offer made re. school presentation
9	04/03/2008	Letter from Pupil giving opinion on trams	Offer made re. school presentation
10	10/03/2008	Au bar not happy about the impact on his business and the fact there has been no work in their half of the closed area	Outline of operational plans for the area given
11	11/03/2008	Parking outside flat has been suspended and we now have to park some distance away We are unable to load or unload outside our house which means we cannot even stop to drop off our shopping.	Apology given and alternative parking provision outlined
12	11/03/2008	Condition of Kerb at McDonald Road/Brunswick Road	Repeated attempts made to contact customer. All work now completed
13	14/03/2008	Lack of provision for cyclists in Queensferry Rd area	Rationale behind west end traffic management given
14	22/03/2008	Customer had plumber out twice today. Pipe has burst and boiler broken. Plumber advised pressure too high.	Not a tram related issue
15	17/03/2008	Complaint re. contractors private car taking up space	Apology given, contractor advised to be more considerate

Analysis of Complaints- period ended 30/03/08 (2)

No.	Date	Complaint Description	Resolution
16	25/03/2008	Customer quite annoyed that a hole has been dug in the footpath right outside his property, says it's a health + safety issue for the public. Wants to know whats going on with this	Site meeting held. Location of pole moved.
17	25/03/2008	Customer called again today to say that the soil outside still has not be uplifted, says he has a funeral later today and if its not moved he will have to cancel this and bill us.	Soil now moved.
18	28/03/2008	Says there are 4 vans parked outside taking up the parking spaces	Discussion took place. Issue resolved as team were completing slabbing work outside shop.
19	27/03/2008	Customer asking why there are barriers are in the middle of Princes Street and how they are an inconvenience also complaining about the bus stop in and around Shandwick Place	Rationale behind Princes St. central reservation work given.
20	24/03/2008	Planning Application for Roseburn Corridor	Full explanation of plans given
21	24/03/2008	Complaint re. Leith Walk traffic	Response given outlining rationale behind traffic management
22	25/03/2008	Taxi Rank at Haymarket closing down	Explanation given re. Infraco work programme
23	25/03/2008	Taxi Rank at Haymarket closing down	Explanation given re. Infraco work programme
24	27/03/2008	Complaint re. West End Traffic management	Complaint passed back to CEC for completion

Stakeholder Engagement Activity – Cumulative to 30/3/08





MUDFA Sub-Committee Meeting

APPENDIX 4

Risk Register

Mudfa Risk Register P12

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
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 delays as a result of carrying out more diversions than estimated	G Barclay	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-Mar-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-Mar-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	N/A	On Programme	8-Mar-08	G Barclay
							Confirmation of BT requirements to tie	Complete	Complete	15-Oct-07	I Clark

ARM Risk ID	Risk Description			Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	Cause	Event	Effect								
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 radical solution	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		<p>Liase with Scottish Power to agree and approve method of crossing tunnel</p> <p>Scottish Power to establish exact location of tunnel</p> <p>SDS to try and ensure tram alignment footprint is outwith Scottish Power alignment - confirmation via thumbnails due 16th November</p> <p>tie to undertake engineering feasibility study</p>	N/A	<p>Undefined</p> <p>Complete</p> <p>Complete</p> <p>Complete</p>	<p>31-Mar-08</p> <p>2-Apr-07</p> <p>28-Dec-07</p> <p>2-Apr-07</p>	<p>M Blake</p> <p>M Blake</p> <p>T Glazebrook</p> <p>J Casserly</p>
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		<p>SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms</p> <p>SDS to obtain consent for design in accordance with programme requirements - SGN and Scottisk Power</p>	On Programme	On Programme	30-Apr-08	<p>I Clark</p> <p>M Blake</p>
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-Apr-08	K Rimmer



MUDFA Sub-Committee Meeting

APPENDIX 5

MUDFA/Infracore Programme Interface



MUDFA Sub-Committee Meeting

APPENDIX 6

Programme: 800 Water Main (Gogar)



Gogar Depot Programme - Advance Works & MUDFA

01 DEVELOPMENT...

Data Date : 31-Mar-08

Printed: 27-Mar-08 14:58

Activity ID	Activity Name	Original Duration	Start	Finish	Activity % complete	March 2008		April 2008				May 2008				June 2008				July 2008				August 2008			
						03	10	17	24	31	07	14	21	28	05	12	19	26	02	09	16	23	30	07	14	21	28
05 ADVANCE WORKS						11-Jul-08, 05 ADVANCE WORKS																					
ADVANCE WORKS - Line 1a						11-Jul-08, ADVANCE WORKS - Line 1a																					
Division of Utilities - SGN						06-Jun-08, Division of Utilities - SGN																					
SGN - Turnhouse TRS						10-Apr-08, SGN - Turnhouse TRS																					
SGN-0060	TRS construction period	49d	08-Oct-07	10-Apr-08	81.63%																						
Outlet Main From TRS						18-Apr-08, Outlet Main From TRS																					
SGN-0120	Construction outlet main from TRS	80d	21-Sep-07	18-Apr-08	81.25%																						
SGN - Sighthill District Pressure Reducing Governor						10-Apr-08, SGN - Sighthill District Pressure Reducing Governor																					
SGN-0930	SGN construction period	40d	06-Mar-08	10-Apr-08	77.5%																						
Commissioning and Decommissioning						06-Jun-08, Commissioning and Decommissioning																					
SGN-0070	Commission Turnhouse TRS	5d	16-Apr-08	22-Apr-08	0%																						
SGN-0940	Commission Sighthill DPG	5d	16-Apr-08	22-Apr-08	0%																						
SGN-0950	Decommission Sighthill TRS	5d	23-Apr-08	29-Apr-08	0%																						
SGN-0080	tie in at Gogar Roundabout	5d	23-Apr-08	29-Apr-08	0%																						
SGN-0955	Decommission Pipe at Gogar Tram Depot	5d	28-Apr-08	02-May-08	0%																						
SGN-0952	Tie in TRS outlet main to downrated Pipeline	5d	28-Apr-08	02-May-08	0%																						
SGN-0960	Records and As Laid	25d	05-May-08	06-Jun-08	0%																						
SGN demobilisation						05-May-08, SGN demobilisation																					
SGN-0370	Remove cabins	2d	30-Apr-08	01-May-08	0%																						
SGN-0375	Reinstate site establishment area	1d	02-May-08	02-May-08	0%																						
SGN-0380	Final site inspection and acceptance	1d	02-May-08	02-May-08	0%																						
SGN-0385	Remove temporary fencing	1d	05-May-08	05-May-08	0%																						
ADVANCE WORKS - GOGAR DEPOT SITE						11-Jul-08, ADVANCE WORKS - GOGAR DEPOT SITE																					
BAA Fenceline						16-May-08, BAA Fenceline																					
A29260	Material procurement	10d	28-Mar-08	10-Apr-08	10%																						
A29270	Bulk earthworks	18d	31-Mar-08	23-Apr-08	0%																						
A29280	Form new Peril road	17d	09-Apr-08	01-May-08	0%																						
A29310	Erect new security fence	13d	28-Apr-08	14-May-08	0%																						
A29300	Topsoil & seeding	4d	01-May-08	06-May-08	0%																						
A29290	Tie-in new peril road to existing	2d	02-May-08	05-May-08	0%																						
A29320	Tie-in fenceline to existing	1d	16-May-08	16-May-08	0%																						
A29330	Clear site	1d	16-May-08	16-May-08	0%																						
Phase 3 (Part B) Mass Earthworks (after SGN Gas Main Isolation) Circa 50,000m3						11-Jul-08, Phase 3 (Part B) Mass Earthworks (after SGN Gas Main Isolation) Circa 50,000m3																					
A29340	Mass Earthworks Excavation - Earthworks Prep - Profiling for Water Main Diversion	5d	21-Apr-08	25-Apr-08	0%																						
A29350	Mass Earthworks Excavation 30000m3 - BAA Fence-line	10d	19-May-08	30-May-08	0%																						
A12960	Mass Earthworks Excavation 20000m3 - Redundant Gas main	10d	02-Jun-08	13-Jun-08	0%																						
A7390	Mass Earthworks Excavation 30000m3 - Redundant 800mm Water main	15d	23-Jun-08	11-Jul-08	0%																						
06 MUDFA WORKS						04-Jul-08, 06 MUDFA WORKS																					
MUDFA (Utilities) - (Construction) Line 1a						04-Jul-08, MUDFA (Utilities) - (Construction) Line 1a																					
Section 06 Gogar Depot (Priority 1)						04-Jul-08, Section 06 Gogar Depot (Priority 1)																					
Intermediate Section 06A Gogar Depot						04-Jul-08, Intermediate Section 06A Gogar Depot																					
Sub-Section 01 Depot						04-Jul-08, Sub-Section 01 Depot																					
Preparatory Works						31-Mar-08, Preparatory Works																					
UTD-0360	Detailed Design - Intermediate Section 06A - Utilities - Issue For Construction Drawings	0d	31-Mar-08	31-Mar-08	0%																						
Water Supply						04-Jul-08, Water Supply																					
UTB-4075	Water (SW-C) (6/PW/D/01) 800mm - Excavate & Lay 200m @ Railway Xing Heading West (ch.25-220) - Team 2 - (Gogar Depot)	13d	28-Apr-08	14-May-08	0%																						
UTB-4085	Water (SW-C) (6/PW/D/01) 800mm - Excavate & Lay 200m from Twin Conn North (ch.420-630) - Team 1 - (Gogar Depot)	10d	28-Apr-08	09-May-08	0%																						
UTB-4078	Water (SW-C) (6/PW/D/01) 800mm - Excavate & Lay 150m A8 End inc Twin Conn (ch.630-776) - Team 1 - (Gogar Depot)	20d	12-May-08	06-Jun-08	0%																						
UTB-4087	Water (SW-C) (6/PW/D/01) 800mm - Tie-In Connection No. 1 @ Railway End - Team 2 - (Gogar Depot)	5d	15-May-08	21-May-08	0%																						
UTB-4077	Water (SW-C) (6/PW/D/01) 800mm - Excavate & Lay 200m @ BAA Fenceline (ch.220-420) - Team 2 - (Gogar Depot)	10d	26-May-08	06-Jun-08	0%																						
UTB-4097	Water (SW-C) (6/PW/D/01) 800mm - Tie-In Connection No. 3 @ A8 End - Team 2 - (Gogar Depot)	5d	09-Jun-08	13-Jun-08	0%																						
UTB-4088	Water (SW-C) (6/PW/D/01) 800mm - Commission New / Isolate Old - (Gogar Depot)	5d	16-Jun-08	20-Jun-08	0%																						
UTB-4089	Water (SW-C) (6/PW/D/01) 800mm - Old Water Main Isolated - (Gogar Depot)	0d		20-Jun-08	0%																						
UTB-4098	Water (SW-C) (6/PW/D/01) 800mm - Tie-In Connections Nos. 2 & 4 - Team 2 - (Gogar Depot)	10d	23-Jun-08	04-Jul-08	0%																						
Commissioning/Completion						04-Jul-08, Commissioning/Completion																					
UT-4010A10	All Construction/Diversion Complete - Sub-Section 01 - (Gogar Depot to Gogar Depot)	0d		04-Jul-08	0%																						
UT-4041	Completion and Sign Off Utilities Sub-Section 01 (Depot)	0d		04-Jul-08	0%																						

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