

## 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
<b>TOTAL</b>	<b>Metres</b>	<b>3939</b>	<b>2756</b>	<b>-1183</b>	<b>16051</b>	<b>12421</b>	<b>-3630</b>
	<b>Chambers</b>	<b>16</b>	<b>7</b>	<b>-9</b>	<b>120</b>	<b>65</b>	<b>-55</b>
<b>BT/Comm</b>	Metres	1626	1099	-527	7016	5383	-1633
<b>SGN</b>	Metres	473	587	114	1314	1189	-125
<b>Scot W</b>	Metres	1619	1030	-589	6019	4724	-1295
<b>Scot P</b>	Metres	221	40	-181	1388	811	-577
<b>Forth Ports</b>	Metres	0	0	0	314	314	0
<b>Gogar Comm</b>	Metres	0	0	0	0	0	0
<b>Gogar Scot P</b>	Metres	0	0	0	0	0	0
<b>Gogar Scot W</b>	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

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.

#### **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 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 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 22<sup>nd</sup> 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  
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 23<sup>rd</sup> 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. Assess potential options to initial diversion, to allow Infracore site establishment erection as planned in mid May 2008.

## 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 Modeling 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 Modeling**

## **Stakeholders**

### **3.0 Lothian Buses**

No report for this period.

### **4.0 CEC**

No report for this period.

### **5.0 Programme**

### **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 5: 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 3<sup>rd</sup> 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.
- Scottish Water acceptance of the Gogar 800 water main to enable issue of IFC documents received. MUDFA are in frequent discussion with SDS to progress remaining details for works to commence; proposed ground profile.
- 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 staff. Critical to successful completion of programme.

**See Appendix 6: Risk Register**