

Bilfinger Berger – Siemens – CAF Consortium

**EDINBURGH TRAM NETWORK
INFRACO CONTRACT**

**PERIOD REPORT No 9
TO 6 DECEMBER 2008**

CONTENTS

- 1 Executive Summary**
- 2 HSQE Management**
 - 2.1 Health & Safety
 - 2.2 Quality
 - 2.3 Environment
 - 2.4 Management System / Deliverables
 - 2.5 KPIs
- 3 Programme**
 - 3.1 Contract Programme status
 - 3.2 Look Ahead programme
 - 3.3 Design and Consents Programme Status
 - 3.4 Tramco Programme Status
 - 3.5 Critical Impact Notices
- 4 Progress**
 - 4.1 Engineering
 - 4.2 Civil & Building Works
 - 4.3 E&M Systems
 - 4.4 Trams
 - 4.5 Testing, Commissioning and Start-up
- 5 Not Used**
- 6 Stakeholder and Third Party Issues**
- 7 Commercial**
 - 7.1 Milestones
 - 7.2 Changes/Instructions/Departures
 - 7.3 Risks and Opportunities
- 8 Resources**
- 9 Other Issues**
- 10 Appendices**
 - 10.1 KPI Report
 - 10.2 Programme Update
 - 10.3 Look-Ahead Programme
 - 10.4 Tram Programme
 - 10.5 RFI Register
 - 10.6 Civil Works Procurement Report
 - 10.7 Change Register
 - 10.8 Organisation Charts
 - 10.9 Production of Design
 - 10.10 Design Issues and Concerns

1 EXECUTIVE SUMMARY

31,000 hours were worked in period 8, of which 12,000 were site hours, without any reportable accidents or incidents. Reporting cycles are being revised to suit tie intermediate reporting deadlines and provide more up to date information for this report. Three significant safety incidents occurred in this period prior to the data date (21/11/08), highlighting supervision and behavioural issues which are being addressed.

In the absence of a formal revision to the Contract programme, works are being planned and managed using the 12 week look-ahead programme. The basis for progress measurement in this report is the programme showing the agreed mitigated impact of the initial design slippage as 38 days (7 weeks 3 days) on the end date. The impact of issues arising following contract commencement are now being analysed with the aim of resolving all issues as soon as possible and progressing to development of proposals for recovering time.

Minimal progress has been made on issue of civil IFC design packages particularly those required for trackwork in sections 1 and 7. Efforts to resolve outstanding issues in technical meetings have not been successful, since the issues are largely commercial.

System engineering design and procurement is in progress, with initial trackwork material deliveries now on site. The process of incorporating Infracore proposals into the civil designs, by means of Development Workshops with tie, has been accelerated to produce approved designs to support procurement and construction.

Tram design and resolution of outstanding requirements is in progress, but resolution of communication system requirements is necessary. Manufacturing has commenced.

Limited construction works have been progressed in sections 1B, 2A, 5A, 5B, 5C and 7, but are all impacted by external issues which require resolution through the change process. Discussions are in progress to agree an interim change mechanism to permit works to proceed whilst the full change process is followed. Until this is in place, BSC will not progress any further changed works prior to agreement on costs.

2 HSQE MANAGEMENT

2.1 Health & Safety

2.1.1 Safety Management including CDM

The Construction Phase Health & Safety Plan Rev 3 is currently being reviewed and updated to include new roles and responsibilities and include Work Package Contractor's Plans.

2.1.2 Accidents and Incidents to data date 21/11/08

2 accidents during period 8/9 these were;

- Off-road articulated dump truck got bogged and back box overturned - not recorded in previous minutes at Farran's section 7 on the 24/10/08.
- Cut fingers to right hand of an engineer also at section 7 on 10/11/08

3 incidents during this period also;

- Lifting chain failure at Carrick Knowe on 30/10/08
- JCB 3CX rolled into network rail fence due to handbrake failure 2/11/08
- Vehicle driver climbed onto load at Leith Docks storage area without any fall arrest protection

5 Safety Issues reported in the period all on 12/11/08

- Safety pin missing on excavator at Viking building demolition
- No verification of cables being isolated at the Viking building demolition
- No hot work permit at the Viking Building demolition
- Leith Walk mini excavator travelling on highway without banksman
- Metal pin on Leith walk nicked electrical cable insulation.

No reportable incidents in the period under RIDDOR 95, however all incidents near misses and accidents have been investigated by BSC staff.

AFR for the first eight periods still remains 0.00.

At present, monitoring periods are not consistent with the data date for the Period Report, this will be resolved in the next period. The total number of hours worked in period 8 was 31,370

Non Site Hours	= 19,088
Site Hours	= 12,282

Breakdown of Site Hours;	
Parsons Brinckerhoff	774
BSC & Contractors	11,508

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2.2 Quality

2.2.1 Quality Management

5 ITP's have been 'accepted with comments' and will be re-submitted in a new agreed format form of ITP by the final week of November with TIE comments having been addressed. Four new ITPs will also submitted at the same time.

SDSs role within the Inspection & Test Plans has now been clarified and agreed between all parties and SDS have revised the weekly 'Construction Support Site Visit Inspection' reporting format in accordance with Tie's replied comments.

SDS review all draft ITPs by email and return their comments for amendment. ITP Workshops are then held with BSC and their WPCs. The next ITP Workshop will be held on the 21/11/08.

Barr Construction have agreed to submit a Project Quality Plan and Task Specific ITPs for their scope of the works for Depot Construction, showing how their own Quality Management System will be applied to the ETN Project and will address specific ER requirements as necessary.

2.2.2 NCRs

1 No NCR raised by tie in the period for Edinburgh Park, in relation to securing of site accesses on the 12/11/08.

2.2.3 Audits

A safety management assessment audit was carried out on Graham's Construction on 28/10/08 and again in Dromore on 7/11/08 with Robert Bell Of tie. Assessment of procedures was satisfactory, but further verification of compliance on site and BSC management supervision required.

An assessment audit will be carried out on MacKenzie Construction on the 27th of November 2008.

2.3 Environment

2.3.1 Environmental Management

The revised Construction Phase Project Environmental Management Plan was resubmitted in w/c 6/10/08.

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2.4 Management System / Deliverables

2.4.1 Deliverables

Project Management Plan

It is intended to re-submit revised components of the BSC PMP/QP on the 12/12/08.

Archaeological & Heritage Mitigation Plan

Plan resubmitted to tie in week commencing 13/10/08.

Construction Phase Health and Safety Plan

Current version is in pace for civil works activities. A further review to take into integrate other consortium partners responsibilities on the project is in progress.

2.5 KPIs

KPI spreadsheet for Period 8 was submitted to tie on 11/11/08 along with associated notes; a further copy is attached.

3. PROGRAMME

3.1. Contract Programme

The programme in the appendix to this report is the V31 mitigation programme, submitted to tie in mid August 2008, as a baseline (which shows a 7 week 3 days slippage to the final Sectional Completion date compared with the Contract Programme)

Progress achieved up to 21 November 2008 has then been recorded against the above baseline including inputting the latest IFC dates received from SDS (V38). However the SDS V38 programme shows that the design packages for 2A and 5B Roads and Track have been issued. These packages have not been issued in full and therefore the date of IFC drawings for these intermediate sections is defaulting to the programme data date (21 November 2008).

Incorporation of recently received MUDFA programme information into the Contract Programme is in progress. The Contract Programme identifies completion of MUDFA works in each Intermediate Section and uses this date as a start milestone for the INFRACO work. Using the same logic would show a further substantial delay to the contract completion. The programme is currently being revised to mitigate this issue by considering the effect of the completion of the MUDFA works on each Sub Section. Therefore where MUDFA activities were shown as being completed on the Contract Programme they are now defaulting to 21 November 2008.

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It should be noted that the programme has only been updated where noted in this report and does not include for all changes that we are aware of or have been notified to date e.g. Leith Walk Embargo, Value Engineering to Roseburn Viaduct etc.

The result is the following changes to Section Completion Dates:

	21 November 2008 Update	24 October 2008	V31 Mitigation
A	17 September 2010	20 August 2010	01 June 2010
B	24 January 2011	02 December 2010	01 July 2010
C	11 October 2011	25 August 2011	10 March 2011
D	08 April 2012	21 February 2012	06 September 2011

The above slippage is a direct consequence of incorporating revision V38 of the design programme into the revised contract programme and is brought about by significant changes to some of the predicted IFC drawing dates

The need to undertake redesign at South Gyle Access Bridge and hence delay its construction is no longer driving the final “Tram in Revenue Service” date. The critical path now runs through the depot drainage and trackwork activities. The driving link in the programme is the issue of drainage IFC drawings for the depot. However if the anticipated date for completion of the MUDFA pipeline diversion works was also inserted it would show further delay.

At a number of locations the construction sequence has been changed, from that originally considered, to suit current constraints. Presently the logic of the Contract Programme remains unaltered from that envisaged at Contract Award. Therefore some minor inaccuracies occur when “progress to date” has been entered into the programme.

Note – the links between the third party consents and the related activities present in the Contract Programme have been deleted to enable a true analysis to be provided of the current situation.

3.2 Look Ahead Programmes

The Look-Ahead Programme, attached as Appendix 10.3, for this period is a progress marked update of the works to the year end. Progress against this programme is reported in section 4.2.2 of this report. Further detail has been issued in the form of the Look-Ahead section Nov 08 – Jan 09 from the Construction Programme to provide a working programme of the activities to be undertaken in the next 3 months.

3.3 Design and Consents Programme Status

Revision 1 of the Contract Programme will be issued by BSC to take account of the 7 weeks 3 day extension of time agreed in principle by tie.

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The combined effect of post V31 design programme slippages, late site possession due to the presence of MUDFA, the transfer of MUDFA scope to INFRACO, dealing with abandoned services, notified variation and alignments issues are currently being considered in a sequential manner by BSC and tie, in accordance with the process agreed (Gallagher/Flynn/Walker)

3.4 Tramco Programme Status

Updated tram design, procurement, manufacturing, delivery and commissioning programme is attached as Appendix 10.4.

3.5 Critical Impact Notices

The following present potential risks to the programme, a review of items identified here as Critical Impact and other issues of equivalent significance identified in correspondence is ongoing, with view to producing a more comprehensive listing in future :

CIN001 - Completion of MUDFA works - ongoing

MUDFA Programme received – Access Dates for Work Areas are being assessed and included in the development of the Construction Programme.

CIN002 – Slippage of IFC dates post V31 - ongoing

We continue to experience slippage to the programme as the result of the late release of IFC drawings. V37 has now been issued.

CIN003 - Track/Roads Alignment Issues - update

Works in Leith Walk are now in progress, but ongoing MUDFA Works will continue to disrupt BSC activities. Our current programme does not include for areas of full reconstruction in all areas of Leith Walk.

CIN004 - Transfer of MUDFA Works to INFRACO - ongoing

These works will affect the commencement and/or programme of the Works. Works in Leith Walk are currently being affected by further service/utility works that need to be carried out for the design to be achieved.

CIN005 - Network Rail Form C Implications - ongoing

The Murrayfield structures and Bankhead Drive Retaining Walls continue to be delayed due to unresolved design issues.

4 PROGRESS

Programme update attached as Appendix 10.2.

4.1 ENGINEERING

4.1.1 Civil & Building Design

4.1.1.1 Production of Design

Of 122 design packages 80 no. have been issued for construction of which 6 no packages are partially approved for construction.

31 packages have been issued for external approval. 11 are in design stage or prior approval process.

No IFC packages were received in this period.

BSC design is ongoing.

IFC design production is shown in appendix 10.9.

4.1.1.2 Approvals & Consents

BSC have initiated 27 workshops to develop the original design to agreed for construction status (i.e incorporating changes required to the civil infrastructure to accommodate Infraco Proposals).

On 17th November 2008 we had the OLE Workshop with **tie** and CEC. The Trackform Workshop with **tie** and TSS was held on 19th November 2008. Two misalignments were identified, noise and vibration and ground improvement layer. **tie** will issue instructions to design the ground improvement layer and advise on noise and vibration.

On 25th November 2008 BSC met with **tie** and CEC to close out the pavement design at the Roads and Drainage Workshop. The parties agreed that Infraco's proposal to plane and re-pave the existing carriageway is not feasible. **tie** will instruct BSC to develop a methodology to facilitate road construction from a menue.

The development schedule is shown in appendix 10.9.1.

4.1.1.3 Issues and Concerns

We have not attached the Critical Issue Chart to this report. Meetings with **tie** were held on 23 October 2008 and 13 November 2008 to close out the issues shown but most issues are of commercial nature, such as outstanding change orders and instruction of redesign for change estimation by BSC, which will be resolved in a different forum.

Other issues concerning areas where there is general disagreement about prior novation matters (e.g. re-design in section 3), planning matters (e.g.

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environmentally friendly lighting) and third party comments (e.g. Transdev comments) similarly require resolution urgently. However the design meetings held on the mentioned have not been effective and will not be continued.

The following technical issues remain unresolved and need intervention by tie to achieve closure :-

- Roads (Pedestrian Crossing) Standards
- South Gyle Access Bridge Redesign
- Scottish Water Consent
- Ocean Terminal/Forth Ports
- Ocean Terminal Area Including Bypass Road
- Airport Tram Stop and Kiosk Area
- New Ingliston Limited (NIL)
- CEC preference for Demarcation between Tramway and Roadway

4.1.2 E&M SYSTEMS DESIGN

4.1.2.1 EMC

Immunisation test in Nottingham take place in mid November and results are currently under review.

4.1.2.2 Overhead Line Equipment

Design

Design is further progressing. Next design submissions are currently in submission process (modular construction set (rev1 of estimated 3); pole design, table of foundations (incl. anchor bolt configuration) draft for immediate review by SDS). These partial submissions are results from accelerated design process to be able to start procurement of long lead time items, which is urgently required to avoid any further delay.

OLE sectionalizing of depot and mainline was clarified, formal confirmation needs to follow.

Approvals and Consents

Variances of drafted OLE design from planning approval submissions advised to SDS for impact assessment requested. Impact of minor changes related to civil engineering under evaluation, design will be modified accordingly.

Final submission of layout drawings and table of foundations planned for calendar week 48.

Proposed combined OLE/lighting pole designs submitted to SDS to assess consents requirements received. Broad acceptance given at meeting with Tie and CEC 17/11, formal submission for acceptance to be made week ending 28/11.

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4.1.2.3 Traction Power Supplies

Design

Design is further progressing. First design submissions, like “Principle Overall System Description” and “Control & Protection Concept” completed and currently in submission process. One main focus of TPS design here is currently on final specification of long lead time items (rectifier transformer, DC switchgear, medium voltage (11kV) switchgear). All this is described in above mentioned documents.

Some clarifications regarding Employers’ Requirements wording conflicts is currently in submission process to tie.

Approvals and Consents

No specific items identified at this moment.

4.1.2.4 Traffic Light Control

Design

Detailed design in preparation.

Approvals and consents

No current issues

4.1.2.6 Trackwork

Design

Preliminary Track Design report and drawings have been presented to TIE and SDS and comments on the report have been raised by TIE and SDS which have been discussed in track workshops. Comments will be considered in the Basis of Design Report.

A Basis of Design report has been issued for review as first document of the Basic Design phase. Document is at the moment under revision for internal BSC review.

The Basic Design reports for Rheda CITY C track and ballasted track are within internal review. The Basic Design Report for direct fixation track is presently being compiled.

23 Technical Queries have been raised. 19 Have been closed, 4 are still open:

- Alignment verification
- Nosing Force Tram
- Negative cant on Tower Place Bridge
- Differential Settlements W1, W3 &W14

Interfaces have been defined and resolution steps have been proposed. Interfaces are further discussed in technical co-ordination meetings with SDS and BSC.

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Issues and Concerns

No current issues

4.1.2.7 Depot Workshop Equipment

Design

Current progress includes preparation of detailed design of

- Vehicle washing plant
- Under floor wheel lathe
- Under floor lifting plant
- Crane
- Service Vehicles

all in support of procurement of long lead time items to mitigate further delays.

It might become necessary to readjust the height of the crane beam support brackets on the columns. This is due the very limited height in the workshop and the detailed design of the crane.

Interface of the lifting plant design and the tram maintenance requirements in clarification.

Interface of washing detergent and the tram painting in clarification.

Approvals and Consents

Under floor Wheel Lathe design submittals handed over in October.

4.1.2.8 Signalling

Design

The preliminary design for the signalling sub-systems has been published for IDC. Formal Discussion with **tie**, TEL and Transdev held prior to submission to establish a joint understanding of the requirements and design solution.

Based on the design of Leith Walk tram stop the duct requirements have been defined between Civil and LVS, SIG and COM.

Approvals and consents

Kick-off design workshop conducted amongst TEL, **tie**, Transdev and Siemens by 10-Nov-08.

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4.1.2.9 Telecoms

Optical Fibre, Radio System and E&M Cubicles

Design

Preliminary Designs Issued For IDC

- E&M Cubicle
- E&M Cubicle UPS
- Optical Fibre
- Operational Radio

Approvals and consents

No current issues

Depot PABX, UPS, and PA

Design

Preliminary Design Issued For IDC

- Depot PABX

4.1.2.10 HV/LV Power Supplies

Design

Work continues to align SDS outline design with BSC and Scottish Power requirements

Approvals and consents

N/A

4.1.3 TRAM DESIGN

As mentioned on previous Periods, CAF has as an outstanding issue the definition of the followings systems:

- TPDS & Radio defined, purchased and provided by Siemens
- Bus Tracker defined, purchased and provided by TIE/Lothian Buses

Siemens and Tie have provided information related with the above equipment. CAF is analyzing the information in order to integrate those systems into the trams.

The mock-up was approved during last visit to Barcelona. The shipment was made and the mock-up has been delivered on Wednesday the 19th. The assembly of the two modules will be performed early on week 48 (24-28th of November). Afterwards, it will be available for public display.

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4.1.4 System Assurance

Within BSC, Siemens are taking the lead on management of Requirements and Assurance Verification. The combined consortium process will be to integrate existing Assurance Packages being produced by SDS and reviewed in an ongoing programme of meetings, with Systems and Vehicle Assurance documentation yet to be produced. These components will be integrated by a consortium level package which will be the basis of the submission to the iCP and tie.

4.1.5 Design Change Management

Civil & Building Work

Refer to Appendix 10.7

E&M

No comments

4.1.6 Value Engineering

Civil & Building Works

As reported in the last period, BSC have challenged the validity of tie's instruction to deliver the VE saving on Roseburn Viaduct as detailed in Schedule 4. Tie have not responded to this issue, but have simply repeated the instruction to progress the VE solution. This issue will be elevated for resolution.

Instructions from tie to progress reassessment of other design-to-cost value engineering opportunities (VE7 Depot, VE12 Edinburgh Park Bridge, VE14 A8 underpass) have been actioned and estimate/programme information will be provided as soon as possible. Work on these items is already in progress, in accordance with IFC design and, where relevant, tie instructions, which will limit achievable VE savings.

E&M Systems

Tramstop UPS and Depot UPS. Evaluating reduction of UPS run time from 4 hours to 3 hours. Response to INF CORR041 will be issued in December

4.1.7 Request for Information

4.2.6.1 Civil & Building Works

See Appendix 10.5. RFI Register

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4.2.6.2 E&M Systems

No comments

4.2 CIVIL & BUILDING WORKS

4.2.1 Procurement

4.2.1.1 Subcontractors

A subcontract procurement schedule, showing status at 26th November, is attached as Appendix 10.5.

Section 1A

Section 1A has now been split into three areas, namely Newhaven to Ocean Terminal (1A1), Ocean Terminal to Bernard Street (1A2) and Bernard Street to Foot of the Walk (1A3).

Quotations have been received for Section 1A1 and an adjudication process is taking place with a view to engaging a subcontractor for Section 1A1 by the end of December 2008.

Section 1B

We have concluded our procurement process for Section 1B.

Section 1C

We have agreed to extend Crummock's involvement in Edinburgh Tram Network to include work between MacDonald Road and London Road.

We are currently negotiating with Mackenzie Construction Ltd to extend their involvement in Edinburgh Trams from the end of Section 1D (approx Castle Street on Princes Street) to Waverly Bridge.

It is our current intention to self deliver the remaining works in Section 1C and a final strategy for carrying out the works is still to be agreed.

Section 1D

We are negotiating with Mackenzie Construction Ltd to place an order for Section 1D.

A formal request to sublet this section of the works will be made week commencing 1st December 2008, notwithstanding this, Mackenzie have been engaged on a letter of intent.

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Section 2A and 5A (Part)

A Limited Instruction to Proceed was issued to Grahams for the demolition of the Caledonian Ale House and this will now be amended to include other areas of Section 2A as required.

Negotiations to conclude a subcontract order with Graham's are ongoing, a formal request to sublet this section of the works will be made to tie week commencing 24th November 2008.

Grahams will take over responsibility for this section between now and the 5th January 2008.

Section 5A (part), 5B and 5C (part)

We have sought formal approval to sublet Edinburgh Park Bridge to Expanded Ltd and await tie's response.

Quotations for Formwork, Reinforcement and Concrete for all of the structures along this section are currently under review. Where required by possession work on the railway we have procured Steel Foundations Ltd and McGrattan Piling to carry out temporary sheet piling.

Enquiries have been sought for other smaller trade contractors, e.g. earthworks, drainage, ducting and concrete works to the track..

Section 6

We are currently finalising the terms and conditions of the full subcontractor order for Barr Ltd for the construction of the depot. In the meantime Barr Ltd has been issued with a Limited Instruction to Proceed to progress any area of the depot which we consider to be critical to our progress, at risk pending IFC design and this is now happening.

A formal request of tie to subcontract the works to Barr Ltd has been requested and we await their response.

Section 7A

Final negotiations are proceeding with Farrans to conclude a subcontractor order. A final meeting to conclude the terms and conditions will take place within the next week.

General

Procurement of relevant key subcontractors (Major Civil Works Contractors, Piling Contractors, Ground stabilisation specialists) includes the requirement for provision of a Collateral Warranty, in accordance with cl 28.7 of the Contract.

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We may need to offer tie, in some instances, alternative wording for their agreement, as we have not as yet been able to conclude our negotiations with potential subcontractors using the template in Schedule 8 part F.

The length of time it has taken to either procure, negotiate and conclude any subcontract has been affected by the complexity of the main contract negotiations and how we step these down into the subcontract, the necessity to operate a complex milestone schedule which can be adversely affected by progress and change on site and the overall uncertainty on programme.

4.2.1.2 Materials

No comment.

4.2.1.3 Long Lead Procurement Management

A letter of intent was issued to Fairfield Mabey to secure delivery of the beams for the Water of Leith bridge in early December. Programme changes at Edinburgh Park Bridge and the need to coordinate revised delivery dates and requirements have prevented us issuing an order for the supply of the precast concrete beams to Edinburgh Park.

Whilst procurement of many items is progressing the late issue of 'for construction' drawings is affecting our ability to secure a fixed price. The cost impact of such delay is outside our control and will be the subject of further discussion with tie.

4.3.2 Construction

4.3.2.1 Progress on site, to 2nd Dec 2008

4.3.2.1.1 Section 1A Newhaven Road to Foot of the Walk

Investigation on location of existing services is scheduled to be carried out 12th Dec at Lindsay Road Retaining Wall. Various Public Utilities will require diverting prior to construction commencing.

Scheduled to Commence 31st Oct. Currently 4.5 weeks behind revised Contract Programme dated 14th Aug 2008

Road works Ch 700 - 850 scheduled to commence 3rd Nov. No IFC drawings. Currently 4 weeks behind revised Contract Programme dated 14th Aug 2008.

4.3.2.1.2 Section 1B Foot of Leith to McDonald Rd

Ch 100-350

The location, configuration and reinstatement of existing services within the works area has continued to disrupt construction activities. Temporary reinstatement of the existing carriageway and footways is progressing to

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achieve the instructed Embargo date of 12th Dec. Currently 15 weeks behind revised Contract Programme dated 14th Aug 2008.

Ch 0 -100.

Traffic Management approvals ongoing. As a result of activities Ch100 -350 currently 11 weeks behind revised Contract Programme dated 14th Aug 2008.

Ch 350 -600

Traffic Management scheme has yet to be approved As a result of activities Ch100 -350 currently 4.5 weeks behind revised Contract Programme dated 14th Aug 2008.

Balfour St Ch 600 – 850

Traffic Management design ongoing. Construction activities scheduled to commence 15th Dec in line with revised Contract Programme dated 14th Aug 2008.

4.3.2.1.3 Section 1C McDonald Rd to Princess Street West

McDonald Rd to Picardy Place

Ch 0 – 375

No IFC drawings. MUDFA works ongoing Traffic management approvals ongoing. Construction activities currently 4.5 weeks behind revised Contract Programme dated 14th Aug 2008

4.3.2.1.4 Section 1D Princess St to Haymarket

Lothian Rd Junction Ch 440 – 280

Traffic Management approvals ongoing. Construction activities scheduled to commence 5th Jan in line with revised Contract Programme dated 14th Aug 2008.

Haymarket Ch1250 -1125

Traffic Management design/approvals ongoing. Construction activities scheduled to commence on agreed date of 19th Feb 6.5 weeks behind revised Contract Programme dated 14th Aug 2008.

4.3.2.1.5 Section 2A Haymarket to Roseburn Junction

Haymarket Station Viaduct

Pier stems 2 & 3 have been cast. Revised abutment design permanent and temporary has been received and construction has recommenced. Currently 9 weeks behind revised Contract Programme dated 14th Aug 2008.

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No IFC Drainage drawings for Verity House

Haymarket – Roseburn Track work

No IFC Drainage Drawings. Construction activities currently 12 weeks behind revised Contract Programme dated 14th Aug 2008

4.3.2.1.6 Section 5A Roseburn Junction to Balgreen Rd

Russell Road Bridge

Temporary Traffic Control Signal is being installed to allow road closure at Russell Rd. Additional GI has been received and temporary works design is ongoing. Currently 23 weeks behind revised Contract Programme dated 14th Aug 2008.

Russell Rd Retaining Walls W3 & W4

Site Clearance and demolition have been completed. Hold on IFC drawings with regard to location of existing sewer has been resolved. Currently 2 weeks behind revised Contract Programme dated 14th Aug 2008.

Murrayfield Tram Stop Retaining Wall

Demolition has been completed. Site clearance has commenced Construction - on hold pending resolution of Roseburn St Viaduct. Currently 16 weeks behind revised Contract Programme dated 14th Aug 2008.
Roseburn St Viaduct

On hold pending resolution of VE/redesign. Construction activities scheduled to commence 30th March 2009 in line with revised Contract Programme dated 14th Aug 2008.

Murrayfield Retaining Wall

Construction – on hold pending resolution of Roseburn Viaduct. Currently 14 weeks behind revised Contract Programme dated 14th Aug 2008.

Murrayfield Stadium Underpass

On hold pending resolution of revised design to Murrayfield Retaining Walls 21D. Currently 14 weeks behind revised Contract Programme dated 14th Aug 2008.

Murrayfield Retaining Walls 21D

On hold pending resolution of revised design. Construction scheduled to commence 28th Jan 2009 in line with revised Contract Programme dated 14th Aug 2008.

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Water of Leith Bridge

Steel fabrication ongoing. Currently 44 weeks ahead of revised Contract Programme dated 14th Aug 2008.

Baird Drive Retaining Wall

Site Clearance has been completed. Currently 13 weeks behind revised Contract Programme dated 14th Aug 2008.

4.3.2.1.7 Section 5B Balgreen Rd to Edinburgh Park Central

Carrick Knowe Bridge

Site access construction has continued from Balgreen to North Abutment. Haul road and piling platform to the South abutment have been completed. Sheet piling to the South Abutment is scheduled to commence during disruptive possession on 29th Nov. Currently 14.5 weeks behind revised Contract Programme dated 14th Aug 2008

General

MUDFA are planning to divert the existing 1500 dia. sewer which passes under the A8. This must be in time for the Phase 3 Infraco Underpass construction.

MUDFA should have been expected to complete water main works at the Depot around a month later than originally anticipated 15 October 2008, pressure test failures have prevented the works being completed as of 21/11/08.

4.3 E&M Systems

4.3.1 OLE (Overhead Line Equipment)

Production / Procurement

Procurement of long lead items under preparation. Examples are poles and wires for tensioning devices.

Issues and Concerns

Changes as a result of Planning Approval process need further clarification to complete design.

Other key issue is currently to issue partial submissions rather than submission of complete design packages as planned to be able to start procurement of long lead items.

4.3.2 TPS (Traction Power Supply)

Production / Procurement

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Under preparation, specifically for long lead items. First proposals of long lead time items (e.g. rectifier transformer) are currently under evaluation.

Issues and Concern

No comments

4.3.3 TRW (Trackwork)

Production

Wide range of preparation work and engineering take place.

Preparing Work Package Plans

Acceptance expected for temporary storage area at South Yards

Delivery of 1000 t of Rails at Forth Ports.

Delivery of 1000 pcs. Sleepers for Ballast Track at South Yards

Delivery of sleepers for 500 m of streettrack at South Yards

Delivery of extendable trailer for transport of rails and sleepers.

Delivery of Road-Railcrane at former Bus Station

Arrival of several containers of other Plant at former Bus Station

Transporting rail to welding company to prepare test-welds.

Personnel

Management: Project Manager and Quantity Surveyor in Edinburgh.

Detailed Design: 5 specialists working in the Netherlands

Preparation: 3 site engineers in Edinburgh

Construction: Construction manager and supervisor in Edinburgh

HSE manager appointed in Edinburgh

Issues and concerns

Tram wheel back-to-back distance under investigation; CAF agreed to go back to 1384 mm; Tolerance and maximum movement under investigation

Use of compact 1400 crossings for FB rails and solid block type crossings for grooved rails as alternative for cast-manganese crossings submitted to tie for approval.

Track alignment still not fixed and affect final detailed design.

4.3.4 DWE (Depot Workshop Equipment)

Production / Procurement

Negotiations with suppliers underway, specifically for long lead items.

Issues and Concerns

Current value engineering discussion of the crane capacity obstruct the design process for the crane design.

4.3.5 Signalling, SCADA, PIS, PA, Comms

Production /Procurement

Based on TIE Notice of change 20 Siemens assessed the the integration of the TPDS onboard computer into the Bustracker system. The integration will

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have a high impact on costs, programme and will increase technical risks, Due to this impact Siemens does not support the implementation of this solution unless specific instruction of TIE received.

Issues and concerns

None

SCADA, CIS, PA

Production

Issues and concerns

Telecomms

Production

Equipment Supplier scopes of work are being prepared

Issues and concerns

None

4.3.6 TLC (Traffic Light Control)

Production

Quotes received from Siemens Traffic Control for all junctions detailed in TNC016 Urban Traffic Control. Estimate in response to TNC01 is being prepared.

Issues and concerns

No current issues.

4.3.7 HV/LV - Supply

Production

Quotes, requested in August 08, received from Scottish Power for all 8 HV sites. Production of Estimate in response to TN014, is being prepared.

Issues and concerns

Scottish Power are not prepared to provide lead times for the provision of HV supplies.

Potential Impact on Gogar Depot and Ingliston P&R SS HV supplies is being assessed

Risk mitigation measures identified and to be included in reply to TC014

4.4 TRAMS

Manufacturing of first batches for the first tram modules have started on programme. tie will visit CAF premises early December 2008 in order to confirm the commencement of works.

4.4.1 Procurement

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Refer to programme (Appendix 10.4)

4.5 Testing, Commissioning and Start-up

No comments

5 NOT USED

6 STAKEHOLDER AND THIRD PARTY ISSUES

Discussions are in progress to agree how tie's existing Stakeholder Management and Communications team can be best used to mutual advantage. BSC are willing in principle to contribute in kind or cost transfer to supplement this team, rather than duplicating resources to comply with the specific requirements of the Employer's Requirements as drafted.

7 COMMERCIAL

7.1 Milestones

Preliminary Milestones Achieved in the Period

Month 7 Preliminaries (BB)
Month 7 Preliminaries (S)
Month 7 SDS Interface

Construction Milestones Achieved in the Period

A11970 Establish TM and Temporary Fencing on Leith Walk Ch 100 to 350*
1138 Demolish Caley Alehouse in Section 2A*
426 Excavation of North Approach Ramps at Edinburgh Park Bridge*

* subject to ongoing discussion with tie Project Managers on agreement.

Milestones Programmed but not Achieved

There are ongoing meetings with tie to discuss the Milestone Schedule and our next meeting is arranged for the 9th December 2008 where milestones which have not been achieved are discussed.

By agreement we will revise the milestone schedule to reflect progress to date and the future progress of the works.

Some progress has been made in achieving a mechanism on how to agree what documentation and testing is required to confirm a Construction Milestone has been achieved.

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On each section, at the weekly progress meeting an item has been added to the Agenda to include a 3 week look ahead on what Milestones are likely to be achieved

8 RESOURCES

8.1 Organisation Charts

See Appendix 10.8

9 OTHER ISSUES

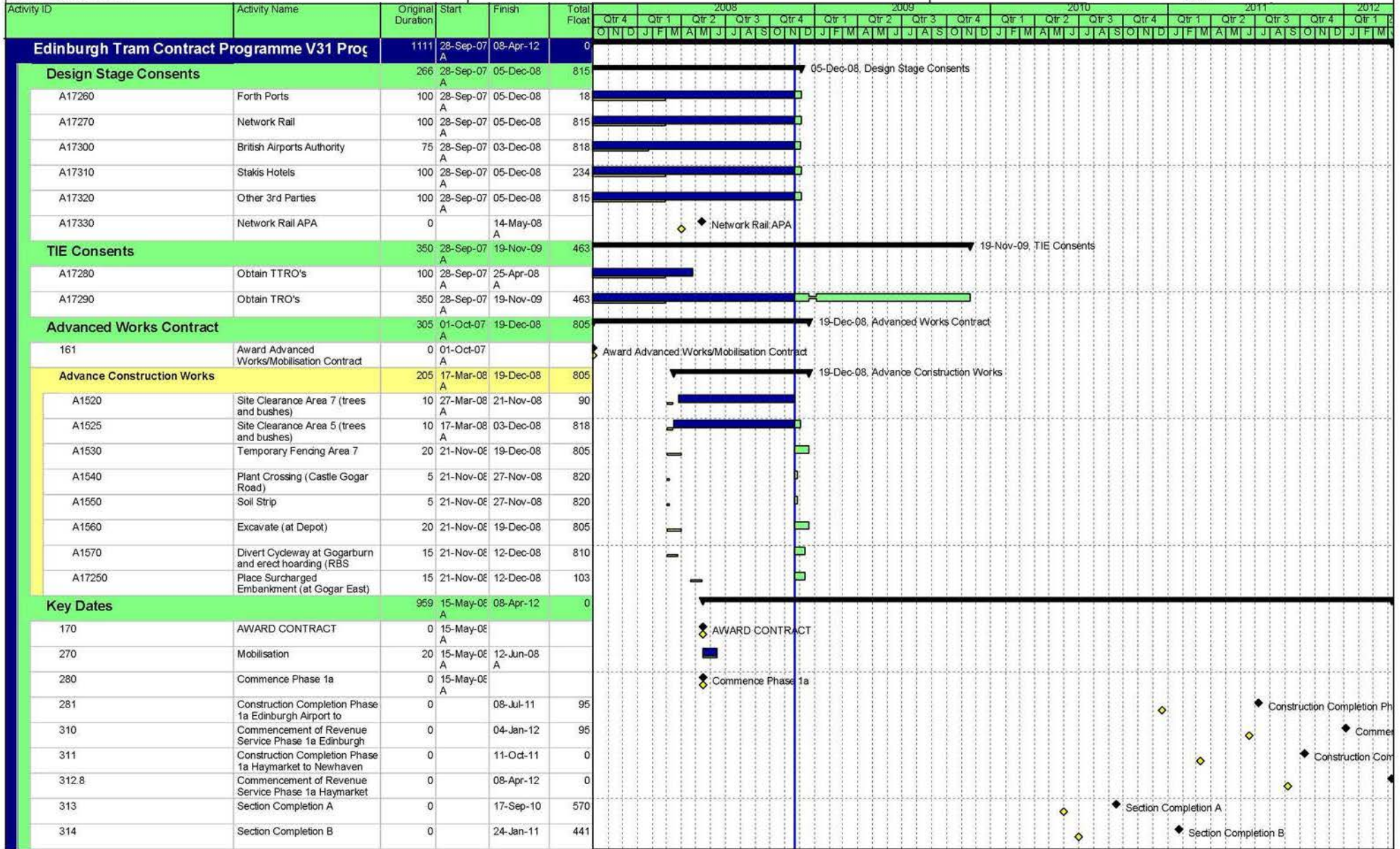
No comments

10 Appendices

10.1 KPI Report

10.2 Programme Update

EDINBURGH TRAM NETWORK



Date	Revision	Checked	Approved
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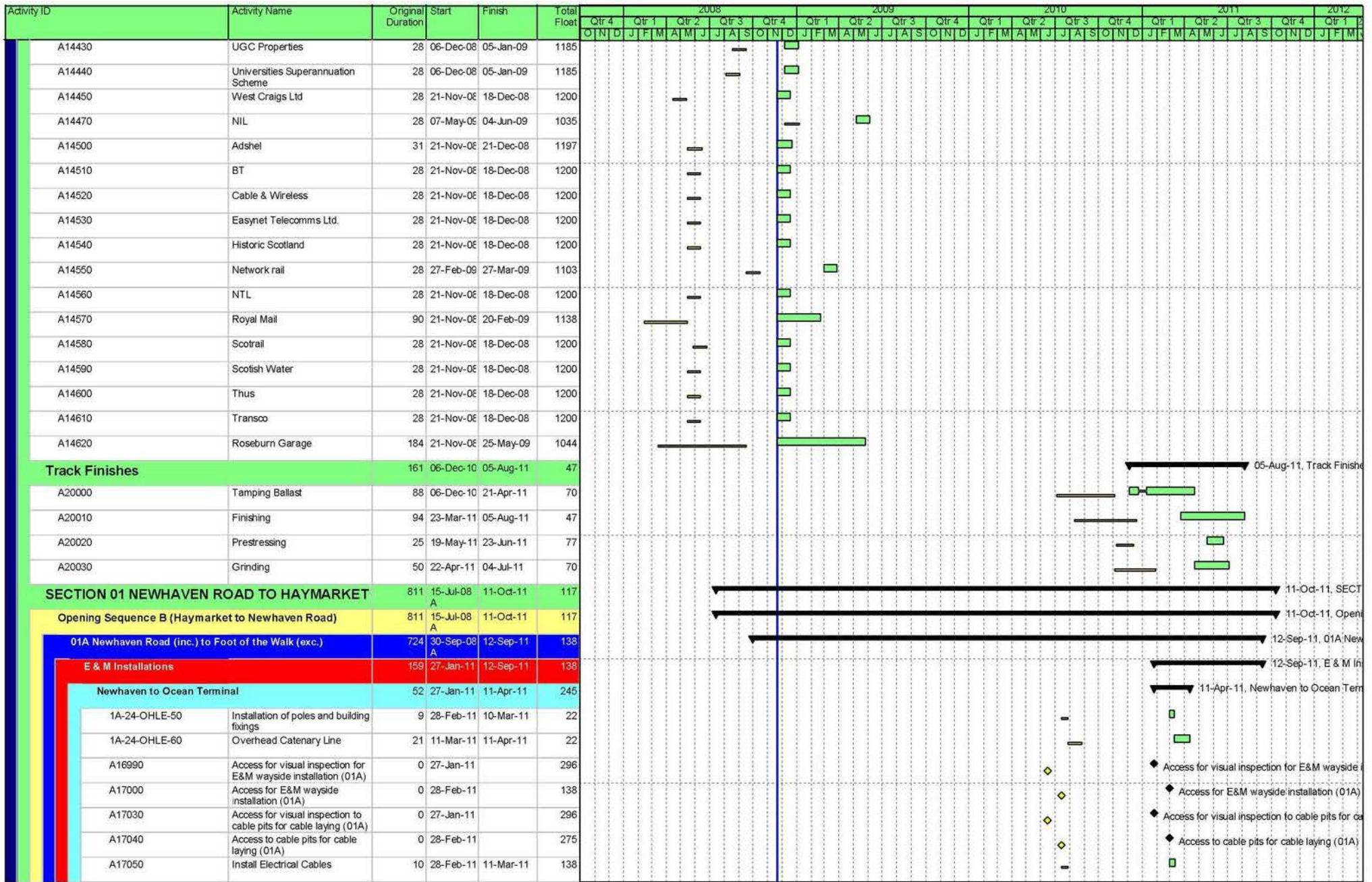




Date	Revision	Checked	Approved
21-Nov-08		scs	

V31 Baseline
 Remaining Work
 V31 Baseline Milestone
 Milestone
 Summary

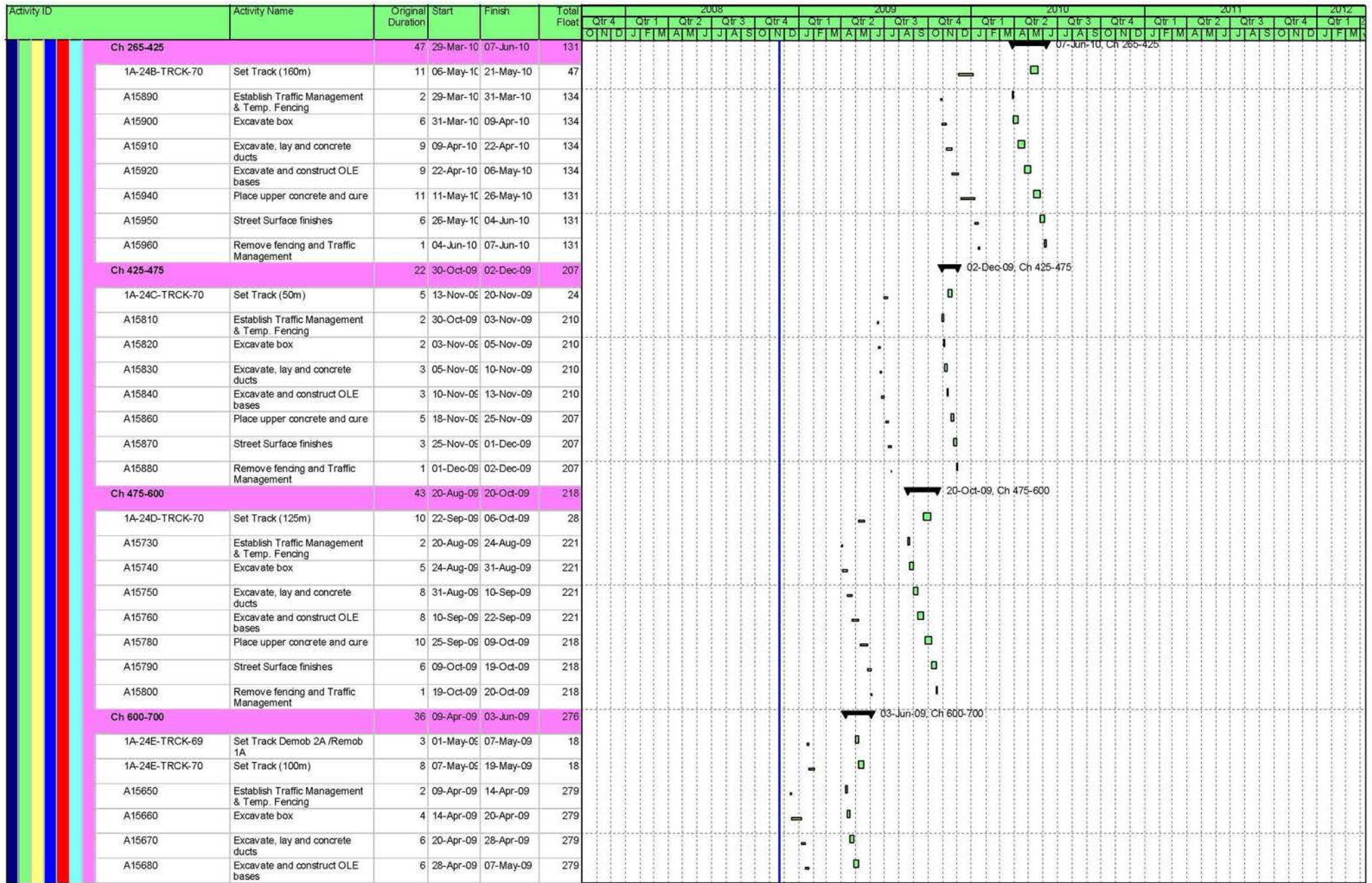
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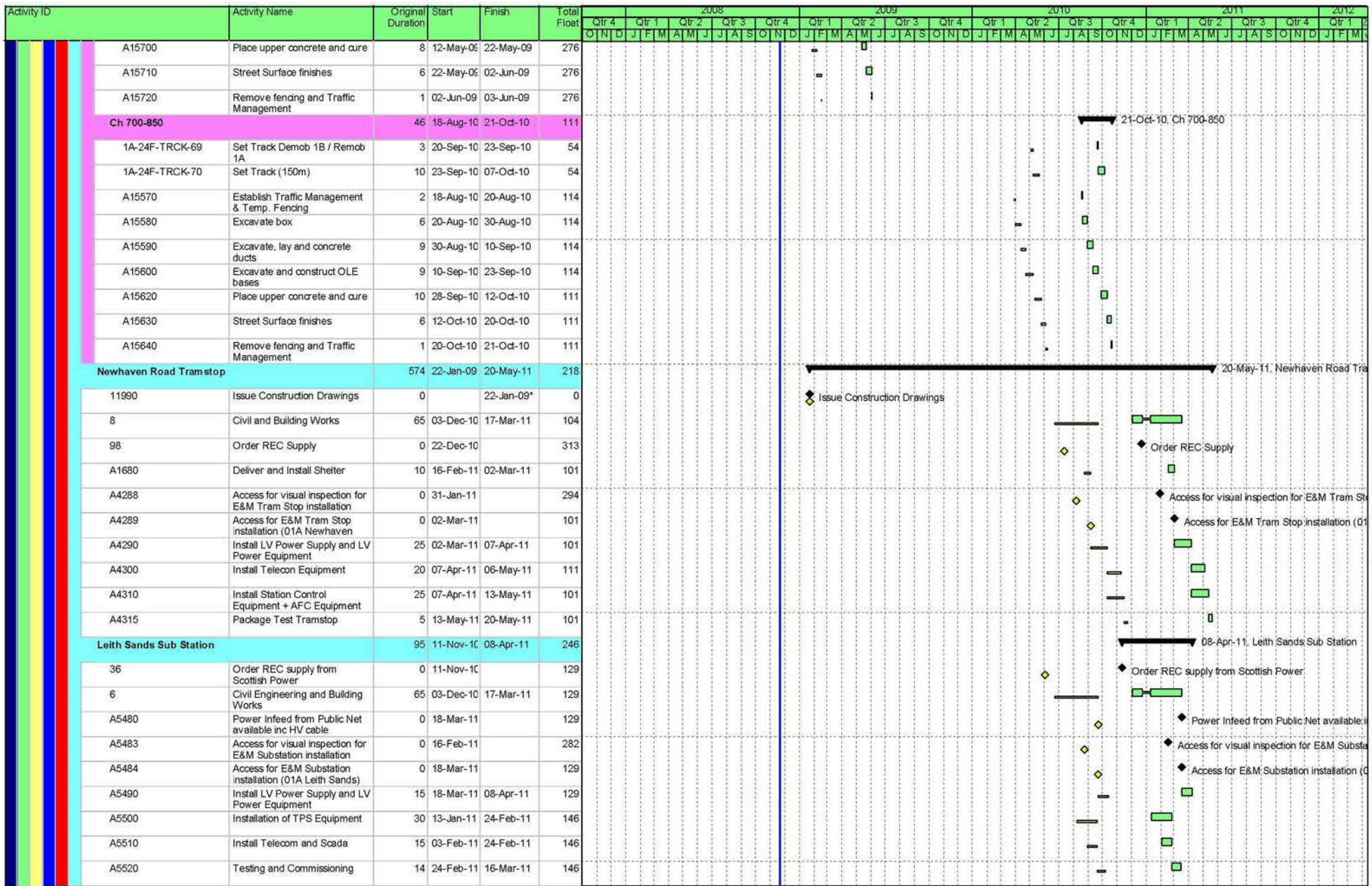
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— Remaining Work
◆ V31 Baseline Milestone
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█ Critical Remaining Work
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Date	Revision	Checked	Approved
21-Nov-08		scs	





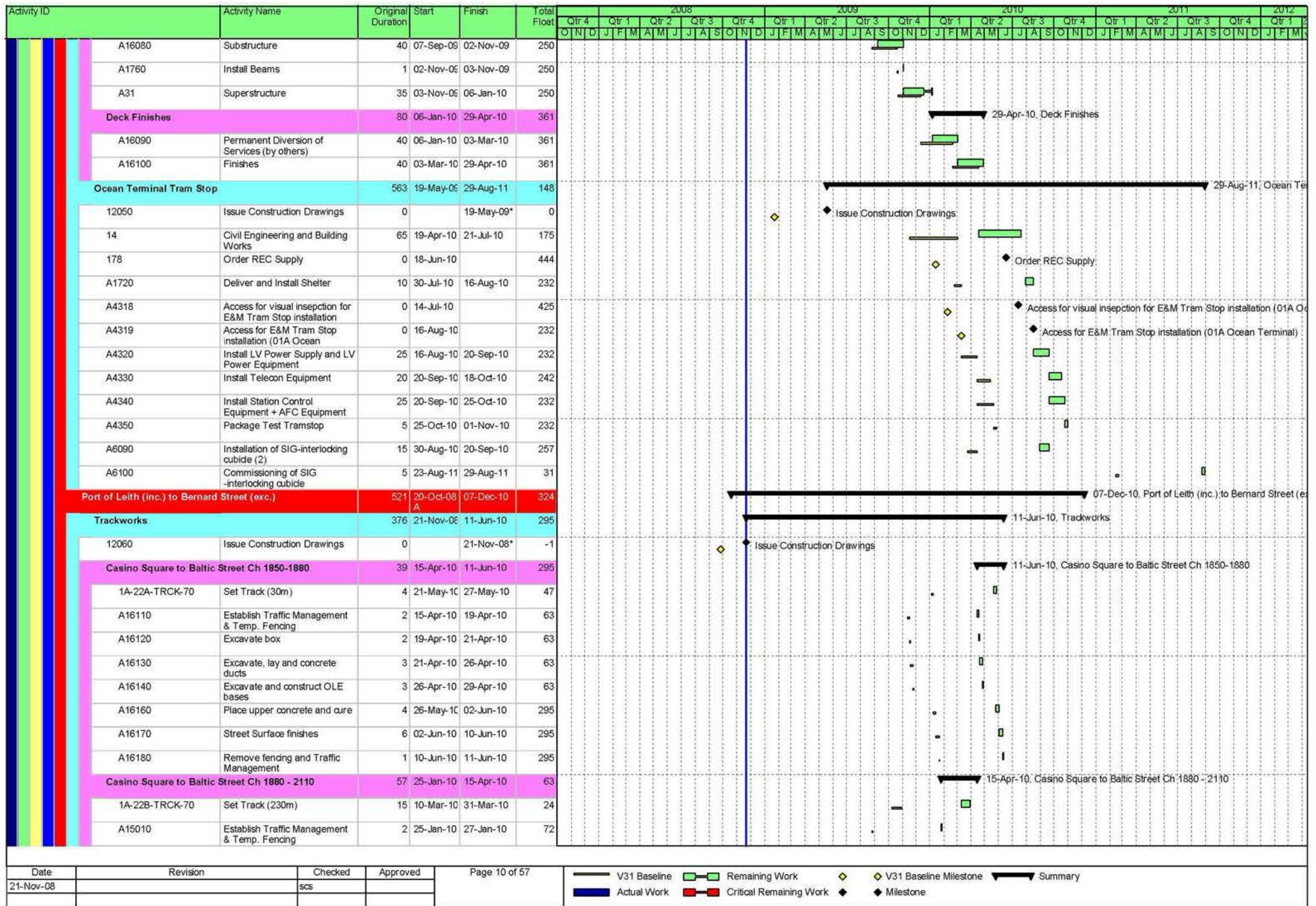
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21-Nov-08		scs	

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- Actual Work ■ Critical Remaining Work ◆ Milestone



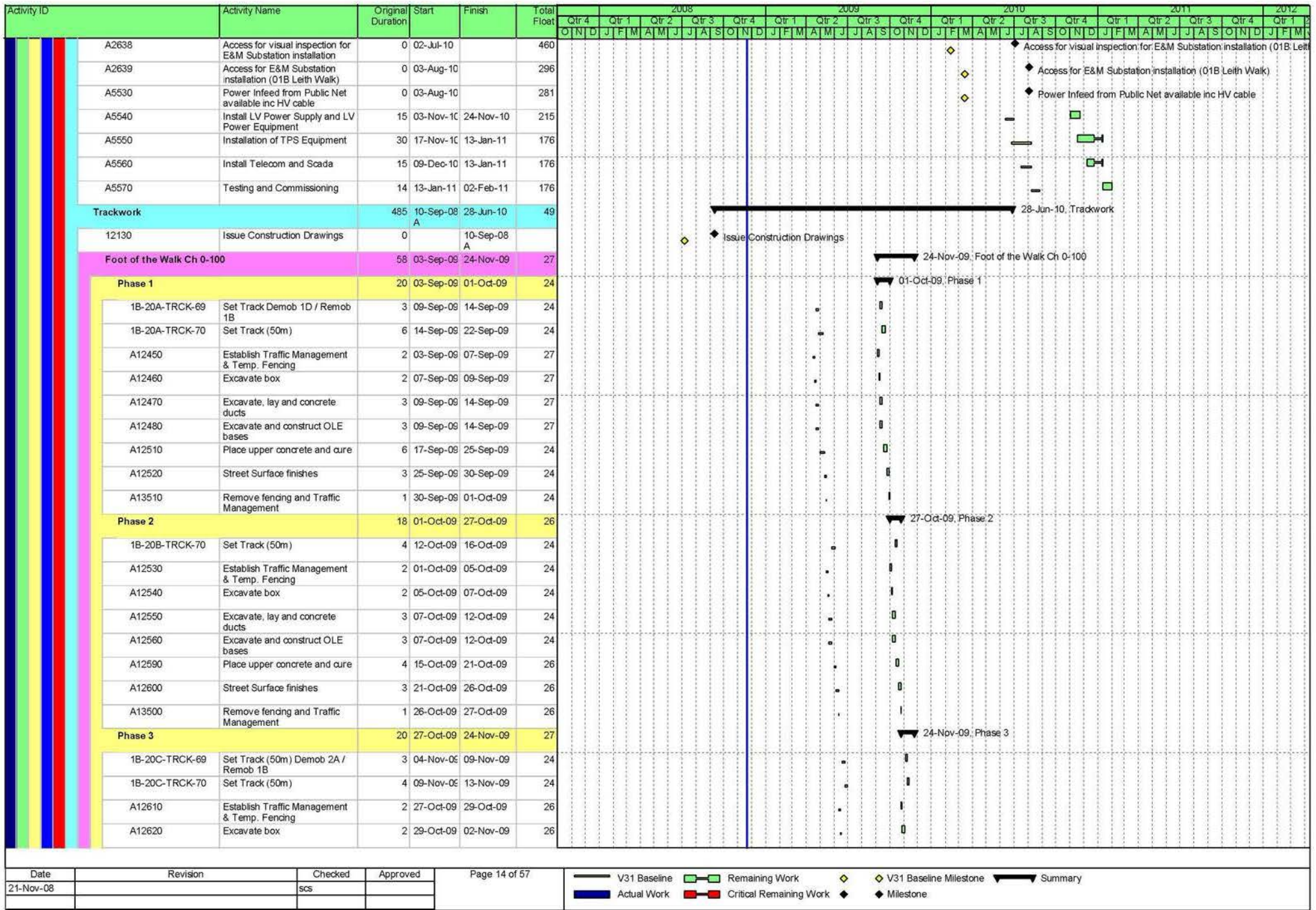
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21-Nov-08		scs	





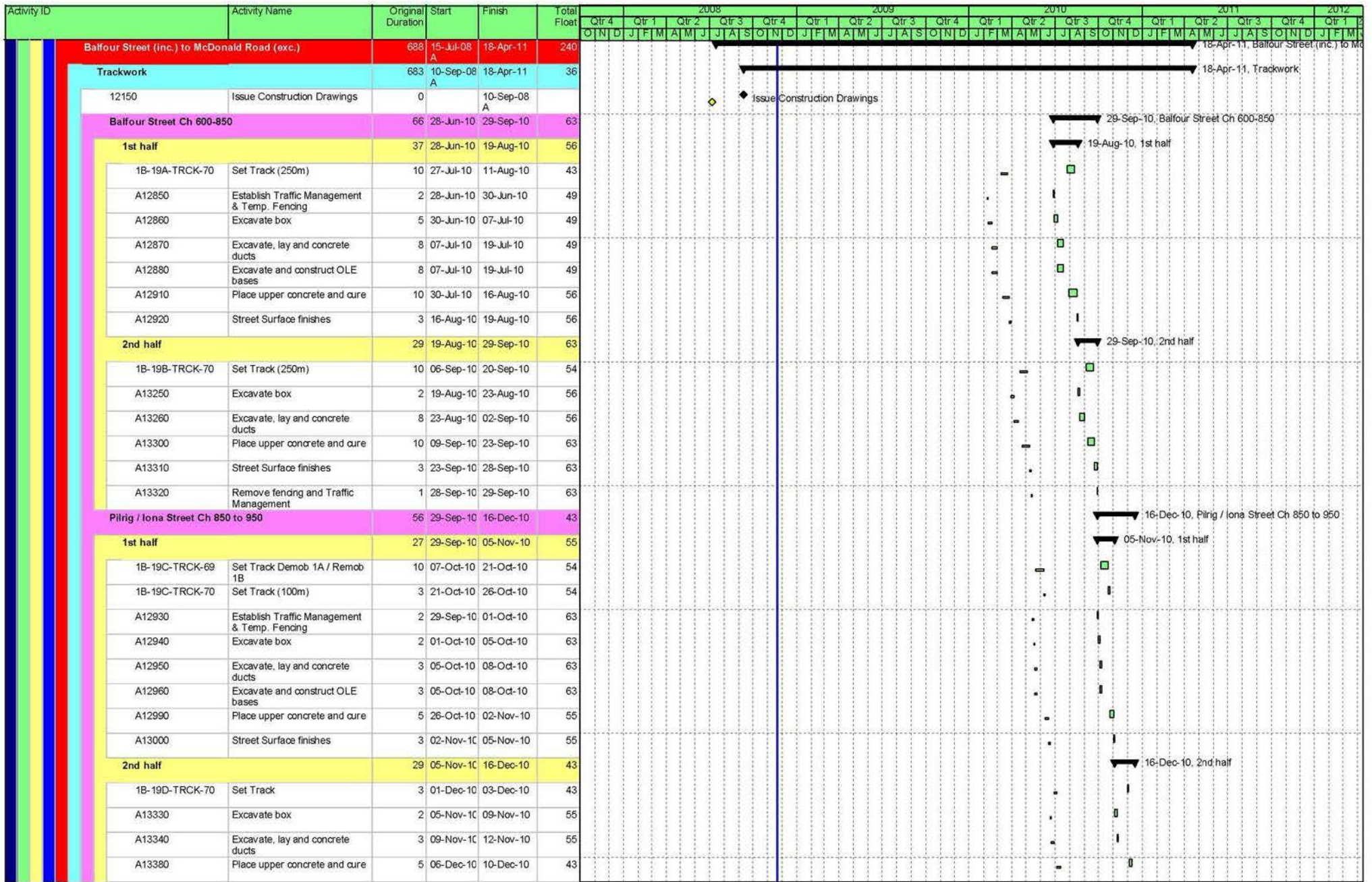
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21-Nov-08		scs	

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- █ Critical Remaining Work
- ◆ Milestone



Date	Revision	Checked	Approved
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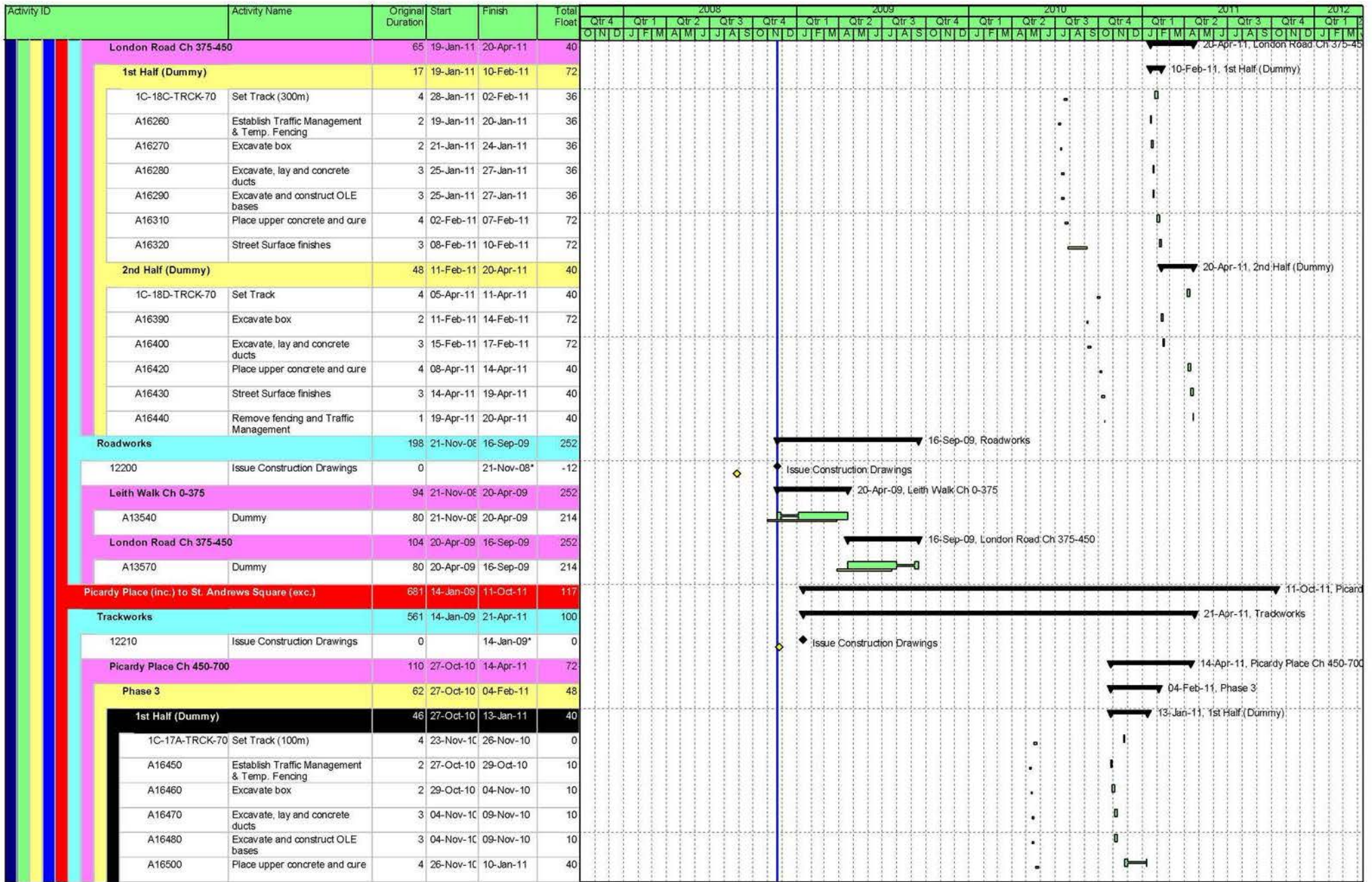




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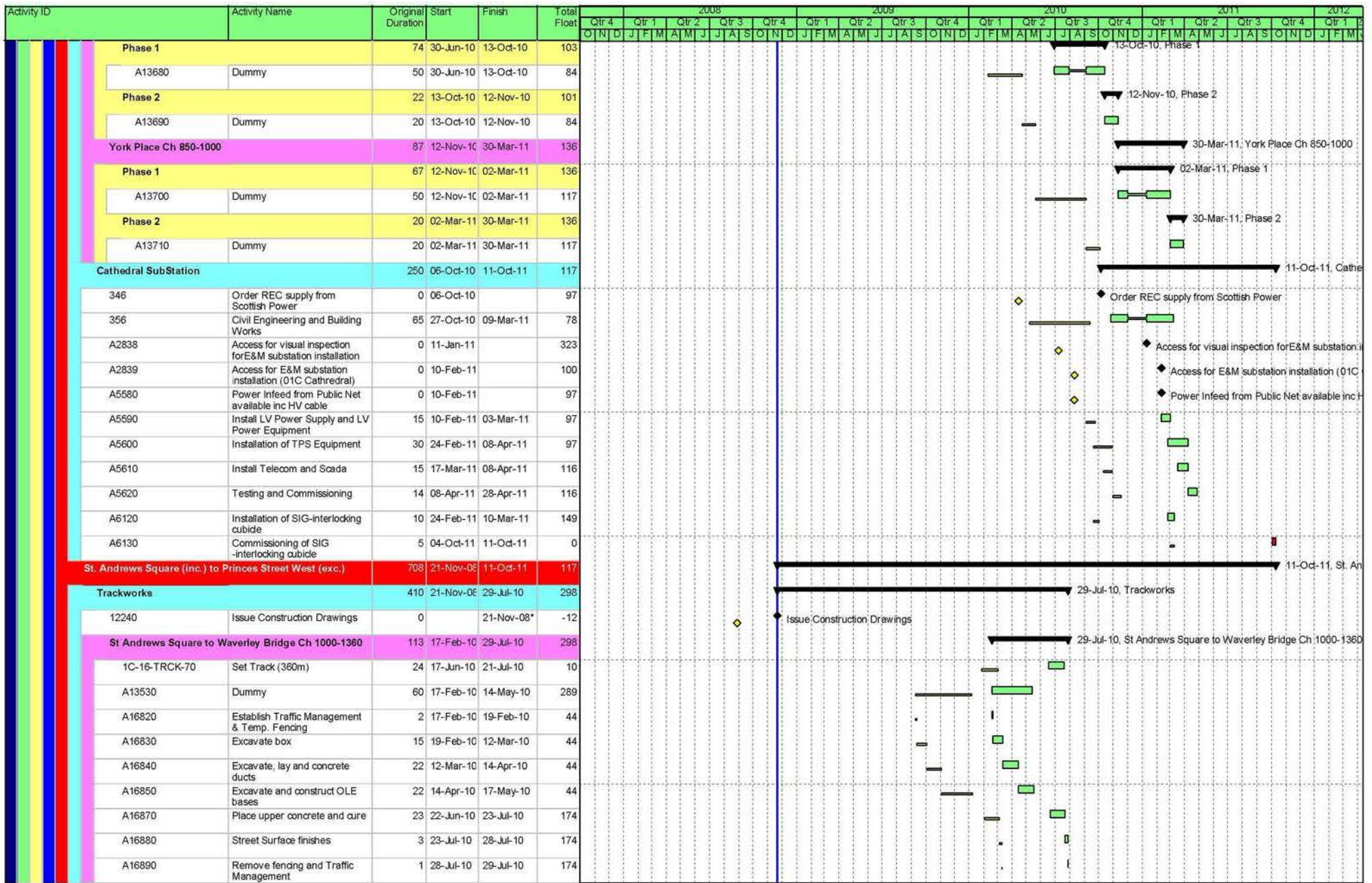
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21-Nov-08		scs	

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◆ Milestone

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Date	Revision	Checked	Approved
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■ Actual Work ■ Critical Remaining Work ◆ Milestone

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						Qtr 4				Qtr 1				Qtr 2				Qtr 3				Qtr 4				Qtr 1				Qtr 2				Qtr 3				Qtr 4				Qtr 1				Qtr 2				Qtr 3				Qtr 4																																																	
						O	N	D	J	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M	A	M	J	J	A	S	O	N	D	J	J	F	M	A	M	J	J	A	S	O																			
A3818	Access for visual inspection to cable pits for cable laying (01D)	0	30-Nov-10		272																																																	◆	◆																																																
A3819	Access to cable pits for cable laying (01D)	0	08-Feb-11		251																																																	◆	◆																																																
A3820	Install Electrical Cables	12	08-Feb-11	23-Feb-11	129																																																	■	■																																																
A3830	Install Fibre Optic Cables	12	08-Feb-11	23-Feb-11	141																																																	■	■																																																
A3840	Install Signalling Wayside Equipment	12	24-Feb-11	11-Mar-11	129																																																	■	■																																																
Princes Street West (inc.) to Shadwick Place (exc.)		435	02-Dec-08	13-Sep-10	267																																																	▶	▶																																																
Roadworks		435	02-Dec-08	13-Sep-10	267																																																	▶	▶																																																
12270	Issue Construction Drawings	0		02-Dec-08*	0																																																	◆	◆																																																
Lothian Road Junction Ch 440-280		415	13-Jan-09	13-Sep-10	267																																																	▶	▶																																																
Phase 1		21	13-Jan-09	11-Feb-09	96																																																	▶	▶																																																
A8250	Establish Traffic Management & Temp. Fencing	2	13-Jan-09	15-Jan-09	96																																																	■	■																																																
A8260	Take down permanent traffic signs / signals	5	15-Jan-09	22-Jan-09	96																																																	■	■																																																
A8270	Excavate traffic islands	3	22-Jan-09	27-Jan-09	96																																																	■	■																																																
A8280	Subbase	2	27-Jan-09	29-Jan-09	96																																																	■	■																																																
A8290	Temporary surfacing	3	29-Jan-09	03-Feb-09	96																																																	■	■																																																
A8300	Temporary Traffic signals / signs / white lines	5	03-Feb-09	10-Feb-09	96																																																	■	■																																																
A8310	Remove fencing and Traffic Management	1	10-Feb-09	11-Feb-09	96																																																	■	■																																																
Phase 2		153	11-Feb-09	18-Sep-09	40																																																	▶	▶																																																
A8490	Establish Traffic Management & Temp. Fencing	2	11-Feb-09	13-Feb-09	153																																																	■	■																																																
A8500	Excavate North kerbline	2	13-Feb-09	17-Feb-09	153																																																	■	■																																																
A8510	Relay North kerbs	5	16-Feb-09	23-Feb-09	153																																																	■	■																																																
A8520	Reset Gullies	5	17-Feb-09	24-Feb-09	153																																																	■	■																																																
A8530	Plane out wearing course	2	24-Feb-09	26-Feb-09	153																																																	■	■																																																
A8540	Resurface road	3	11-Sep-09	16-Sep-09	40																																																	■	■																																																
A8550	Pavement (1m strip)	5	23-Feb-09	02-Mar-09	155																																																	■	■																																																
A8560	White Lines	1	16-Sep-09	17-Sep-09	40																																																	■	■																																																
A8570	Street Lighting / Road signs	7	23-Feb-09	04-Mar-09	153																																																	■	■																																																
A8670	Remove fencing and Traffic Management	1	17-Sep-09	18-Sep-09	40																																																	■	■																																																
Phase 3		14	18-Sep-09	08-Oct-09	54																																																	▶	▶																																																
A8580	Establish Traffic Management & Temp. Fencing	2	18-Sep-09	22-Sep-09	40																																																	■	■																																																
A8590	Excavate South kerbline	2	22-Sep-09	24-Sep-09	40																																																	■	■																																																
A8600	Relay South kerbs	4	23-Sep-09	29-Sep-09	40																																																	■	■																																																
A8610	Reset Gullies	4	24-Sep-09	30-Sep-09	40																																																	■	■																																																
A8620	Plane out wearing course	1	30-Sep-09	01-Oct-09	40																																																	■	■																																																

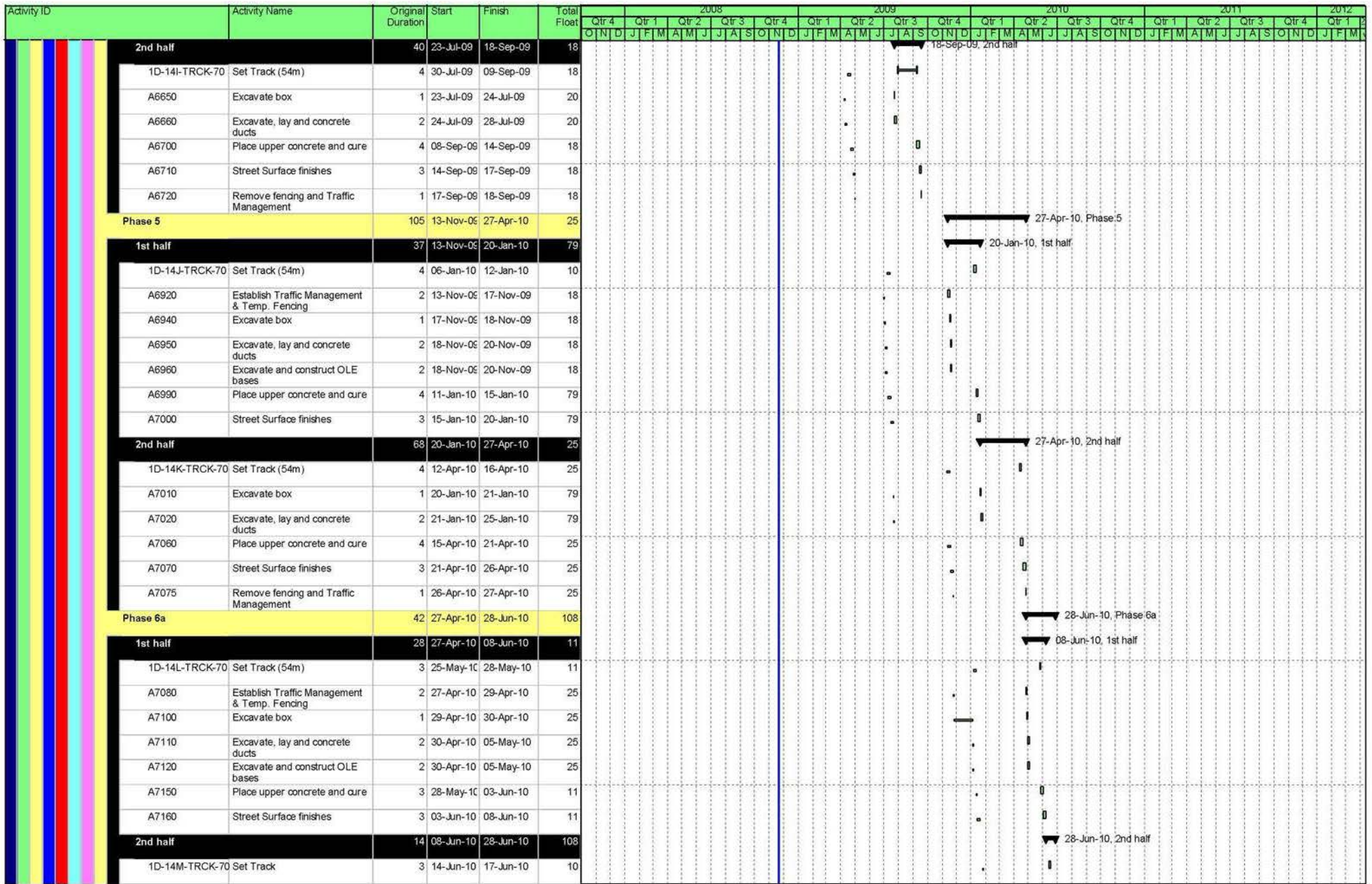
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2008												2009												2010												2011												2012											
						Qtr 4			Qtr 1			Qtr 2			Qtr 3			Qtr 4			Qtr 1			Qtr 2			Qtr 3			Qtr 4			Qtr 1			Qtr 2			Qtr 3			Qtr 4			Qtr 1			Qtr 2			Qtr 3			Qtr 4											
						O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Phase 7						15	28-Jun-10	19-Jul-10	306	19-Jul-10, Phase 7																																																							
A7320	Establish Traffic Management & Temp. Fencing	2	28-Jun-10	30-Jun-10	244																																																												
A7330	Replace north junction kerb line	6	30-Jun-10	08-Jul-10	244																																																												
A7340	Rebuild splitter island	6	08-Jul-10	16-Jul-10	244																																																												
A7350	White Lines / Traffic Signals / Road Signs	4	30-Jun-10	06-Jul-10	252																																																												
A7355	Remove fencing and Traffic Management	1	16-Jul-10	19-Jul-10	244																																																												
Torphicen Ch 1125-940						47	21-Jan-11	28-Mar-11	145	28-Mar-11, Torphicen Ch 1125-940																																																							
Phase 3						47	21-Jan-11	28-Mar-11	145	28-Mar-11, Phase 3																																																							
North Pavement						13	21-Jan-11	08-Feb-11	145	08-Feb-11, North Pavement																																																							
A7680	Establish Traffic Management & Temp. Fencing	2	21-Jan-11	24-Jan-11	126																																																												
A7690	Replace north kerb line	10	25-Jan-11	07-Feb-11	126																																																												
A7695	Remove fencing and Traffic Management	1	08-Feb-11	08-Feb-11	126																																																												
South Pavement						14	09-Feb-11	28-Feb-11	145	28-Feb-11, South Pavement																																																							
A7700	Establish Traffic Management & Temp. Fencing	2	09-Feb-11	10-Feb-11	126																																																												
A7710	Excavate for new channel and kerb line / remove existing	2	11-Feb-11	14-Feb-11	126																																																												
A7720	Construct Kerb lines	3	15-Feb-11	17-Feb-11	126																																																												
A7730	Reset Gullies	2	18-Feb-11	21-Feb-11	126																																																												
A7740	Surface new channel	1	22-Feb-11	22-Feb-11	126																																																												
A7750	Pavement Works	7	18-Feb-11	28-Feb-11	126																																																												
A7760	Street Lighting / Traffic Signals / Road Signs	3	18-Feb-11	22-Feb-11	126																																																												
A7765	Remove fencing and Traffic Management	1	23-Feb-11	23-Feb-11	126																																																												
Splitter Island						23	24-Feb-11	28-Mar-11	145	28-Mar-11, Splitter Island																																																							
A7770	Establish Traffic Management & Temp. Fencing	2	24-Feb-11	25-Feb-11	126																																																												
A7780	Excavate for new channel and kerb line / remove existing	2	28-Feb-11	01-Mar-11	126																																																												
A7790	Construct Kerb lines	4	01-Mar-11	04-Mar-11	126																																																												
A7800	Reset Gullies	4	02-Mar-11	07-Mar-11	131																																																												
A7810	Surface new channel	1	08-Mar-11	08-Mar-11	131																																																												
A7820	Pavement Works	16	07-Mar-11	28-Mar-11	126																																																												
A7830	Street Lighting / Traffic Signals / Road Signs	3	07-Mar-11	09-Mar-11	130																																																												
A7835	Remove fencing and Traffic Management	1	16-Mar-11	16-Mar-11	126																																																												
West Maitland Ch 940-850						19	14-May-10	11-Jun-10	96	11-Jun-10, West Maitland Ch 940-850																																																							
Phase 1						19	14-May-10	11-Jun-10	96	11-Jun-10, Phase 1																																																							
South Pavement						11	14-May-10	01-Jun-10	96	01-Jun-10, South Pavement																																																							
A7840	Establish Traffic Management & Temp. Fencing	2	14-May-10	18-May-10	72																																																												

Date	Revision	Checked	Approved
21-Nov-08		scs	

V31 Baseline
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 Critical Remaining Work
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 Milestone
 Summary



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