

Bilfinger Berger – Siemens – CAF Consortium

4.3.6 Delivery of Trams to Edinburgh

According to CAF's contractual programme, the dynamic tests for the tram No1 will be achieved by mid March 2010. Similarly, the dynamic tests for the tram No2 will be achieved by mid April 2010.

CAF will fulfil its contractual commitments and will be ready to deliver trams to Edinburgh according with its contractual programme.

4.4 SYSTEMS INTEGRATION

4.4.1 EMC

4.4.1.1 Earthing & Bonding

Clarification of individual civil structures is ongoing.
Where it has not been practicable to timely incorporate E&B measures to SDS IFC Design (e.g. in Princes Street), they are being issued as CVI, incorporated into BSC's pre-pouring QC checklists, and shall be included in the final as-built drawings.

E&B of Traffic Lights has been discussed with supplier.

E&B of TSS has been elaborated basing on current civil design including depot TSS.

4.4.1.2 Stray Current

Code of Practice, Stray Current Strategy and Stray current corrosion study have been revised again and submitted.

Stray Current Working Party has been attended
Indicative measurement of rail conductance at Princes Street has been carried out.
Magnetic Field Calculations have been carried out. Report will be submitted soon.

4.4.1.3 Network Rail Immunisation

Revision of Immunisation calculation is ongoing.

Please refer to chapter 4.4.2.2 as well.

4.4.2 System Assurance

4.4.2.1 Deliverables / Documents issued

- HAZID Workshop, to identify EMC hazards associated with Tram Traction packs and telecoms in respect to Immunisation, Report issued for comments

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4.4.2.2 Activities completed

- Immunisation –
 - Contract awarded, VolkerRail, Ref Immunisation works to carry out design and modification to NR Track Cct's as specified in Immunisation Calculations.
 - Start-up meeting held with Network Rail Ref Immunisation works to carry out design and modification to NR Track Cct's
- HFI (OCC) HCI analysis meeting held at Edinburgh Park with *tie*, Transdev, RA and CCD Ergonomics, 03 / 04 November.
- Audit, Safety Assurance - Tram

4.4.2.3 Activities Ongoing and Planned:

- Hazard Log Management –
 - Update and manage Hazard Log based on Hazard owner's responses (ongoing). Based on mitigation provided by the Hazard owner the *tie* PSCC will review the hazard, rank the hazards' residual risk and confirm the if the hazard has been controlled so Far As Is Reasonably Practicable (SFAIRP) (Target Date ongoing)
 - Progress Handover of Hazard Log from SDS / agree mitigation arguments in SDS Hazard Log. SDS to supply all hazard mitigation and close out arguments by 20th November 2009. Meeting of PSCC Sub Committee planned for 30th Nov / 02nd Dec to review and close out SDS owned hazards to allow formal handover of hazard log to BSC. This meeting was cancelled due to failure of SDS to deliver required information as agreed. SDS agreed revised delivery date of Hazard Log info by 20/11/09.
 - Meeting held with SDS – Manchester to provide guidance Ref hazard mitigations. 11th November.
- HFI – Workshops planned with CCD (HFI supplier) at Edinburgh, 24/25 November, to continue HFI assessment of OCC
- Participate in IDR / IDC to provide guidance ref Hazard Identification as per Detailed Design Assurance Plan (DDAP).
- Immunisation –
 - DC Track Cct, WSF Signalling Failure, Risk Assessment (QRA). Continue to write report and issues to Atkins for review.
 - Design mitigation now being supplied with objective of being able to close hazards from a design perspective.
 - Progress design and installation for modifications to Network Rail Track Circuits in the Edinburgh area
 - A presentation is planned to the Network Rail Infrastructure Systems Review Panel (ISRP) a 'Case For Safety' to demonstrate that the two work streams that we have undertaken above have minimised the risk to the Network Rail Infrastructure ALARP. This document is due in fourth quarter of 2009.

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4.4.2.4 Regular activities and attendances:

- As well as the above a number of other activities are ongoing such as regular attendance at the following meetings; PSCC, PSCC Sub-Committee, IDR/IDC, Requirements Man, SCWP.

4.5 TESTING, COMMISSIONING AND START-UP

A Siemens Testing & Commissioning Manager is expected to be nominated before the end of August. Initially working from Germany in the definition of the overall related plans and procedures, it is intended that he later joins full time the team in Edinburgh by the spring of 2010. The exact date could be accelerated or postponed, as a mitigation measure, depending on actual Programme progress.

5 NOT USED

6 STAKEHOLDER AND THIRD PARTY ISSUES

No further Discussions have been held on the subject 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 21 Preliminaries (BB)

Month 21 Preliminaries (S)

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Construction Milestones Achieved in the Period

219	Gogarburn Bridge West Abutment	Reinforced Earth	85,743.90
189	Gogarburn Bridge East Abutment	Reinforced Earth	85,743.90
269	Gogarburn Culvert No 1	Backfill and Finishes	37,566.54
A17170	Depot Building	Foundations - Column Foundations	185,376.33
A17180-2	Substructures and Superstructure	Primary GL's 10-1	185,376.33
A17180-4	Substructures and Superstructure	Secondary GL's 10-1	185,376.33
1149	Earthworks Depot	Depot area	185,376.33
1159	Steelwork Fabrication	Depot Building	185,376.33
7	Carrick Knowe Bridge (S23)	North Abutment - Base Construction, Concrete	32,259.34
16	Carrick Knowe Bridge (S23)	North Abutment - Excavate and Blind - Blinding	32,259.34
97	Carrick Knowe Bridge (S23)	South Abutment - Base Construction - Concrete	32,259.34

CAF Milestones

8	Completion of 1 st Tram		3302497.49
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Milestones Programmed but not Achieved

Regular discussions take place now between *tie* and BSC on the subject of Milestones and the Milestones Programmed but not achieved are recorded elsewhere.

7.2 CHANGE MANAGEMENT

7.2.1 The BSC Change Register is presented in Appendix 10.7.

523 Changes have been notified to 20 November 2009 - 67 by *tie* and 456 by Infraco.

63 of these Changes have been superseded by further Changes or withdrawn therefore there are 460 current Changes.

Of the 460 notified Changes, 217 have been accepted in principle, 48 have been rejected and 195 have neither been accepted nor rejected by *tie*,

65 of these Changes have a delay only impact and will not require an Estimate (the impact of these is reflected in the various entitlement programmes submitted to *tie*) therefore there are 395 Changes requiring Estimates.

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Infraco has submitted to **tie** Estimates for 264 Changes for design only or for design and construction works.

The total Consortium value of the submitted Estimates is £68,686,000 including £12,714,000 for non-scope work on Bernard Street and St Andrew Square.

112 of the 264 submitted Estimates have been partly agreed by issue of a **tie** Change Order (application of preliminary percentages requires to be amended as a result of agreement on the percentage addition for preliminaries – **tie** have responded to BSC letter in this regard and is under review). The value of Change Orders issued by **tie** is £7,861,000.

There are 131 remaining notified Changes for which Estimates are required. In addition, a further 33 construction Estimates need to be prepared for Changes for which a design only Estimate has been submitted to date.

It is not possible to prepare 85 of the Estimates until an SDS design Estimate is received, validated by BSC and approved by **tie**, and a revised design is obtained from the SDS Provider.

There are 38 Estimates proceeding through the internal Consortium Approvals Process.

Prioritisation of the remaining Estimates is aligned with the latest intended construction sequence.

A graphical pie chart is presented in Appendix 10.7.

Included in **tie's** Change Order Pro-forma; "Relief required from compliance with Infraco obligations under the contract", "Programme impact and required Extension of Time", "Impact on Performance" remain unresolved for a number of the Changes.

The main reasons for not issuing Change Orders are: Change not agreed in principle, Estimates not yet submitted, figures in estimates not agreed, Base Date Design Information not agreed.

Recently, **tie** has responded to a number of submitted Estimates asserting that the identified Change is normal development and completion of design. BSC generally rejects this assertion.

The complexity, nature and amount of changes have overloaded the change mechanism included in the Infraco contract, because the Estimates cannot be submitted within the time frame requested in the contract and also due to the fact that the overall impact to the Programme from a given change cannot be assessed on an individual basis. It has been agreed between **tie** and BSC that the estimates submitted by BSC will only deal with direct related effects (costs) of each Change. Time related effect will be assessed separately.

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Dispute Resolution Procedure:

tie have referred 1) Financial aspects to EOT 1 – “Settlement reached through Mediation”, 3) Carrick Knowe Bridge – “Adjudicator rejected redress sought by tie” and 4) Gogarburn Bridge – “Adjudicator rejected redress sought by tie”.

BSC have referred 1) Delays Arising from MUDFA Programme Rev 8 – “Suspended pending Programme Revision 3 Negotiations” and 2) Russell Road Retaining Wall 4 – “Referred to Adjudication and determination expected in next Reporting Period”

BSC have requested that *tie* and BSC jointly appoint a Tram Inspector which has not been appointed in line with the Infraco Contract. Tie have proposed a company to BSC for consideration but have not provided substantiation documentation to BSC for their consideration. A meeting is to be convened to resolve this issue in the next reporting period.

8 RESOURCES

8.1 Organisation Charts

Consortium and Systems organisation charts are included in this report.

See Appendix 10.8.

9 OTHER ISSUES

No comments.

10 Appendices

10.1 KPI Report & Schedule 40

Contractor Period H.S. & E. Return



To be completed and returned to tie Ltd (Pauline Goldie Pauline.goldie@tie.ltd.uk) by the Thursday of week 1 for each period (a period is 4 weeks, for dates of start and finish please contact Pauline)

RETURN DATA

Contractor –

Date completed –

Year –

Period –

PEOPLE DATA

Average number of direct employees on ETP –

Hours worked of direct employees on ETP –

Average number of subcontract / others inc visitors on ETP –

Hours worked of subcontract / others inc visitors on ETP –

Number of work sites –

INCIDENT DATA (leave blank if none)

	DIRECT	SUBCON	M.O.P.
Fatal	<input type="text"/>	<input type="text"/>	<input type="text"/>
Major	<input type="text"/>	<input type="text"/>	<input type="text"/>
Over 3 day	<input type="text"/>	<input type="text"/>	<input type="text"/>
Dangerous Occurrence	<input type="text"/>	<input type="text"/>	<input type="text"/>
Reportable Disease	<input type="text"/>	<input type="text"/>	<input type="text"/>
Injury – Non RIDDOR	<input type="text"/>	1	<input type="text"/>
Near Miss/ Unsafe Condition	<input type="text"/>	7	<input type="text"/>
Service Damage	<input type="text"/>	6	<input type="text"/>
RTA (in and around ETP)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Positive intervention (if measured)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Environmental Incident	<input type="text"/>	2	<input type="text"/>

ENFORCEMENT NOTICE / VISIT DATA

	NOTICE	VISIT
H.S.E Enforcement	<input type="text"/>	1
SEPA	<input type="text"/>	<input type="text"/>
Local Authority	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

CONTRACTOR AUDIT / INSPECTION DATA

	PLANNED	ACTUAL
Inspections	16	22
Audits	2	2

Please supply supporting data for all RIDDORs, Service Damages and ENF visits if not previously submitted – Rev0

SCHEDULE PART 40 ENVIRONMENTAL AND HEALTH AND SAFETY KEY PERFORMANCE INDICATORS		Key Performance Indicator	
		work done to date	07/11/2009
		Period (tie)	40027
		Application No	0910/08/0024
Key Performance Indicator	Target	Achieved	
Enforcement Notices	Zero	Zero	
Fatalities	Zero	Zero	
RIDDOR Accidents Accident Frequency Rate:	0.25 for 2008/2009	0.27	
	0.25 for 2009/2010	0.13- achieved	
	0.24 for 2010/2011	-	
Incidents (Health, Safety and Environmental)	Initial notification to tie within 24 hours. Submission of formal investigation reports by ag	Achieved	
Incident Report Recommendations	Closed as per agreed dates (none overdue)	Achieved	
Infraco Audits Planned v. Actual	90% of plan	Achieved	
Infraco Site Inspections Planned v. Actual	90% of plan	Achieved	
Non-conformances (raised by tie)	Closed as per agreed dates (none overdue)	None Overdue	
tie Audit Findings (Major and Minor)	Closed as per agreed dates (none overdue)	Achieved	
Code of Construction Practice	Zero unauthorised breaches	Not Achieved	

10.2 Programme Update

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	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2
Edinburgh Tram Programme rev1 Progress to 27 November 2009 Chair						1296	21-Sep-07 A	23-Dec-12	0																			
Design Stage Consents						266	28-Sep-07 A	11-Dec-09	750																			
A17260	Forth Ports	100	28-Sep-07 A	11-Dec-09	750	11-Dec-09, Design: Stage Consents																						
A17270	Network Rail	100	28-Sep-07 A	11-Dec-09	750																							
A17300	British Airports Authority	75	28-Sep-07 A	27-Nov-09	760																							
A17310	Stakis Hotels	100	28-Sep-07 A	16-Oct-09 A																								
A17320	Other 3rd Parties	100	28-Sep-07 A	11-Dec-09	750																							
A17330	Network Rail APA	0		14-May-08 A		Network Rail APA																						
TIE Consents						350	28-Sep-07 A	29-Jan-10	596																			
A17280	Obtain TTRO's	100	28-Sep-07 A	25-Apr-08 A																								
A17290	Obtain TRO's	350	28-Sep-07 A	29-Jan-10	596	29-Jan-10, TIE Consents																						
Advanced Works Contract						555	01-Oct-07 A	08-Jan-10	740																			
161	Award Advanced Works/Mobilisation Contract	0	01-Oct-07 A			Award Advanced Works/Mobilisation Contract																						
Advance Construction Works						455	17-Mar-08 A	08-Jan-10	740																			
A1525	Site Clearance Area 5 (trees and bushes)	10	17-Mar-08 A	09-Dec-09	753	08-Jan-10, Advance Construction Works																						
A1520	Site Clearance Area 7 (trees and bushes)	10	27-Mar-08 A	27-Nov-09	184																							
A1530	Temporary Fencing Area 7	20	27-Nov-09*	08-Jan-10	740																							
A1540	Plant Crossing (Castle Gogar Road)	5	27-Nov-09*	04-Dec-09	755																							
A1550	Soil Strip	5	27-Nov-09*	04-Dec-09	755																							
A1560	Excavate (at Depot)	20	27-Nov-09*	08-Jan-10	740																							
A1570	Divert Cycleway at Gogarburn and erect hoarding (RBS Variation)	15	27-Nov-09*	18-Dec-09	745																							
A17250	Place Surcharged Embankment (at Gogar East)	15	27-Nov-09*	18-Dec-09	82																							
Key Dates						1144	15-May-08 A	23-Dec-12	0																			
170	AWARD CONTRACT	0	15-May-08 A			AWARD CONTRACT																						
270	Mobilisation	20	15-May-08 A	12-Jun-08 A																								
280	Commence Phase 1a	0	15-May-08 A			Commence Phase 1a																						
313	Section Completion A	0		20-Jun-11	552	Section Completion A																						
314	Section Completion B	0		07-Nov-11	411	Section Completion B																						
281	Construction Completion Phase 1a Edinburgh Airport to Haymarket	0		24-Apr-12	63	Construction Co																						
311	Construction Completion Phase 1a Haymarket to Newhaven (excluding roadw	0		26-Jun-12	0	Constructio																						
315	Section Completion C	0		26-Jun-12	180	Section Co																						
310	Commencement of Revenue Service Phase 1a Edinburgh Airport to Haymark	0		21-Oct-12	63	Co																						
312.8	Commencement of Revenue Service Phase 1a Haymarket to Newhaven	0		23-Dec-12	0																							
325	Section Completion D	0		23-Dec-12	0																							
Commissioning Phase 1a Edinburgh Airport to Haymarket						171	24-Feb-12	21-Oct-12	45																			
295	Latest date for first tram on site available for commissioning	0		24-Feb-12	303	Latest date for first t																						
300	System Integration Test; Phase 1a Edinburgh Airport to Haymarket	30	24-Apr-12	24-May-12	63																							
301	Test Running and Driver Familiarisation; Phase 1a Edinburgh Airport to Haym	30	24-May-12	23-Jun-12	63																							
302	T1 Post Commissioning Test completed; Phase 1a Edinburgh Airport to Haym:	0		23-Jun-12	183	T1 Post Co																						

Date	Revision	Checked	Approved	Page 1 of 46	Rev 1 Baseline	Remaining Work	Rev 1 Baseline Milestone	Summary
24-Nov-09		SCS			Actual Work	Critical Remaining Work	Milestone	

CEC00624424_0059

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	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
Opening Sequence B (Haymarket to Newhaven Road)						984	15-Jul-08 A	26-Jun-12	129																				
01A Newhaven Road (inc.) to Foot of the Walk (exc.)						918	30-Sep-08 A	26-Jun-12	129																				
E & M Installations						164	25-Oct-11	26-Jun-12	129																				
Newhaven to Ocean Terminal						52	25-Oct-11	19-Jan-12	241																				
A16990	Access for visual inspection for E&M wayside installation (01A)	0	25-Oct-11		292																								
A17030	Access for visual inspection to cable pits for cable laying (01A)	0	25-Oct-11		292																								
A17050	Install Electrical Cables	10	24-Nov-11	08-Dec-11	122																								
1A-24-OHLE-50	Installation of poles and building fixings	9	24-Nov-11	07-Dec-11	6																								
A17000	Access for E&M wayside installation (01A)	0	24-Nov-11		122																								
A17040	Access to cable pits for cable laying (01A)	0	24-Nov-11		271																								
1A-24-OHLE-60	Overhead Catenary Line	21	08-Dec-11	19-Jan-12	6																								
A17070	Install Signalling Wayside Equipment	10	09-Dec-11	22-Dec-11	122																								
A17060	Install Fibre Optic Cables	10	22-Dec-11	18-Jan-12	113																								
Ocean Terminal to Foot of the Walk						67	23-Mar-12	26-Jun-12	129																				
A3883	Access for visual inspection for E&M wayside installation (01A)	0	23-Mar-12		195																								
A3898	Access for visual inspection to cable pits for cable laying (01A)	0	23-Mar-12		195																								
A3900	Install Electrical Cables	15	24-Apr-12	15-May-12	10																								
1A-21/22/23-OHLE-50	Installation of poles and building fixings	13	24-Apr-12	11-May-12	0																								
A3884	Access for E&M wayside installation (01A)	0	24-Apr-12		10																								
A3899	Access to cable pits for cable laying (01A)	0	24-Apr-12		174																								
1A-21/22/23-OHLE-60	Overhead Catenary Line	32	11-May-12	26-Jun-12	0																								
A3920	Install Signalling Wayside Equipment	15	15-May-12	05-Jun-12	10																								
A3910	Install Fibre Optic Cables	15	25-May-12	15-Jun-12	7																								
Newhaven Road (inc.) to Ocean Terminal (exc.)						819	30-Sep-08 A	08-Feb-12	228																				
Lindsay Road Retaining Walls (W1)						448	30-Sep-08 A	29-Jul-10	265																				
12000	Issue Construction Drawings	0		30-Sep-08 A																									
5	Wall B Contiguous Bored Piles	100	15-Dec-09	19-May-10	265																								
A1710	Wall A Reinforced Earth	50	20-May-10	29-Jul-10	265																								
Roadworks						628	22-Apr-09 A	28-Oct-11	160																				
11970	Issue Construction Drawings	0		22-Apr-09 A																									
A1110	CH 0700 to 0850	203	15-Dec-09	13-Oct-10	246																								
A1100	CH 0300 to 0700	50	16-Mar-11	26-May-11	269																								
A1090	CH 0000 to 0300	50	22-Aug-11	28-Oct-11	160																								
Trackwork						578	22-Apr-09 A	19-Aug-11	82																				
11980	Issue Construction Drawings	0		22-Apr-09 A																									
Ch 0-265						80	27-Apr-11	19-Aug-11	82																				
A15970	Establish Traffic Management & Temp. Fencing	2	27-Apr-11	29-Apr-11	85																								
A15980	Excavate box	11	29-Apr-11	17-May-11	85																								
A15990	Excavate, lay and concrete ducts	16	17-May-11	09-Jun-11	85																								
A16000	Excavate and construct OLE bases	16	09-Jun-11	01-Jul-11	85																								
1A-24A-TRCK-69	Set Track (265m) Demob 1D / Remob 1A	3	28-Jun-11	30-Jun-11	76																								
1A-24A-TRCK-70	Set Track (265m)	25	01-Jul-11	05-Aug-11	76																								

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24-Nov-09		SCS			Actual Work	Critical Remaining Work	Milestone	

CEC00624424_0062

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	Qtr 1	Qtr 2	Qtr 3	Qtr 4		
Trackwork						874	10-Sep-08 A	30-Jan-12	37																			
12150	Issue Construction Drawings	0		10-Sep-08 A		◆ Issue Construction Drawings																						
Balfour Street Ch 600-850						75	07-Apr-11	22-Jul-11	47																			
1st half						37	07-Apr-11	31-May-11	49																			
A12850	Establish Traffic Management & Temp. Fencing	2	07-Apr-11	08-Apr-11	42																							
A12860	Excavate box	5	11-Apr-11	15-Apr-11	42																							
A12870	Excavate, lay and concrete ducts	8	18-Apr-11	27-Apr-11	42																							
A12880	Excavate and construct OLE bases	8	18-Apr-11	27-Apr-11	42																							
1B-19A-TRCK-70	Set Track (250m)	10	09-May-11	20-May-11	36																							
A12910	Place upper concrete and cure	10	12-May-11	25-May-11	49																							
A12920	Street Surface finishes	3	26-May-11	31-May-11	49																							
2nd half						38	01-Jun-11	22-Jul-11	47																			
A13250	Excavate box	2	01-Jun-11	02-Jun-11	49																							
A13260	Excavate, lay and concrete ducts	8	03-Jun-11	14-Jun-11	49																							
1B-19B-TRCK-70	Set Track (250m)	10	30-Jun-11	13-Jul-11	38																							
A13300	Place upper concrete and cure	10	05-Jul-11	18-Jul-11	47																							
A13310	Street Surface finishes	3	19-Jul-11	21-Jul-11	47																							
A13320	Remove fencing and Traffic Management	1	22-Jul-11	22-Jul-11	47																							
Pilrig / Iona Street Ch 850 to 950						55	25-Jul-11	10-Oct-11	33																			
1st half						27	25-Jul-11	31-Aug-11	44																			
A12930	Establish Traffic Management & Temp. Fencing	2	25-Jul-11	26-Jul-11	47																							
A12940	Excavate box	2	27-Jul-11	28-Jul-11	47																							
A12950	Excavate, lay and concrete ducts	3	29-Jul-11	03-Aug-11	47																							
A12960	Excavate and construct OLE bases	3	29-Jul-11	03-Aug-11	47																							
1B-19C-TRCK-69	Set Track Demob 1A / Remob 1B	10	03-Aug-11	16-Aug-11	38																							
1B-19C-TRCK-70	Set Track (100m)	3	17-Aug-11	19-Aug-11	38																							
A12990	Place upper concrete and cure	5	22-Aug-11	26-Aug-11	44																							
A13000	Street Surface finishes	3	29-Aug-11	31-Aug-11	44																							
2nd half						28	01-Sep-11	10-Oct-11	33																			
A13330	Excavate box	2	01-Sep-11	02-Sep-11	44																							
A13340	Excavate, lay and concrete ducts	3	05-Sep-11	07-Sep-11	44																							
1B-19D-TRCK-70	Set Track	3	23-Sep-11	27-Sep-11	33																							
A13380	Place upper concrete and cure	5	28-Sep-11	04-Oct-11	33																							
A13390	Street Surface finishes	3	05-Oct-11	07-Oct-11	33																							
A13400	Remove fencing and Traffic Management	1	10-Oct-11	10-Oct-11	33																							
McDonald / Brunswick Road Ch 950-1250						69	11-Oct-11	30-Jan-12	37																			
1st half						35	11-Oct-11	29-Nov-11	37																			
A13010	Establish Traffic Management & Temp. Fencing	2	11-Oct-11	12-Oct-11	33																							
A13020	Excavate box	6	13-Oct-11	20-Oct-11	33																							
A13030	Excavate, lay and concrete ducts	9	21-Oct-11	02-Nov-11	33																							
A13040	Excavate and construct OLE bases	9	21-Oct-11	02-Nov-11	33																							
1B-19E-TRCK-70	Set Track (300m)	12	03-Nov-11	18-Nov-11	33																							

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24-Nov-09		SCS			Actual Work	Critical Remaining Work	Milestone	

CEC00624424_0072