

## **Appendix A:**

### **Summary of Environment Licences**

[illegible]

**Appendix B:**  
**Key Materials**  
**& Material Suppliers**

## **B.1 – Key Material Deliveries**

**Included for Payment as ‘Materials on Site’**



## KIRIBATI ROAD REHABILITATION PROJECT

### MATERIALS ON SITE

[illegible]

## KIRIBATI ROAD REHABILITATION PROJECT

### MATERIALS ON SITE

[illegible]

## KIRIBATI ROAD REHABILITATION PROJECT

### MATERIALS ON SITE

[illegible]

## KIRIBATI ROAD REHABILITATION PROJECT

### MATERIALS ON SITE

[illegible]

## B.2 – Material Suppliers & Service Providers

[illegible]

**Appendix C:**

**Programme (rev3, April 2014)**

**Summary & Status in Bar Chart Form**

### Summary Programme for Key Activities - Betio-Temaiku Road (Based on Contractor programme revision 3)

[illegible]

**Summary Programme for Key Activities - Airport, Temaikū, Buota & Feeder Roads (Based on Contractor programme revision 3, April 2014)**

[illegible]



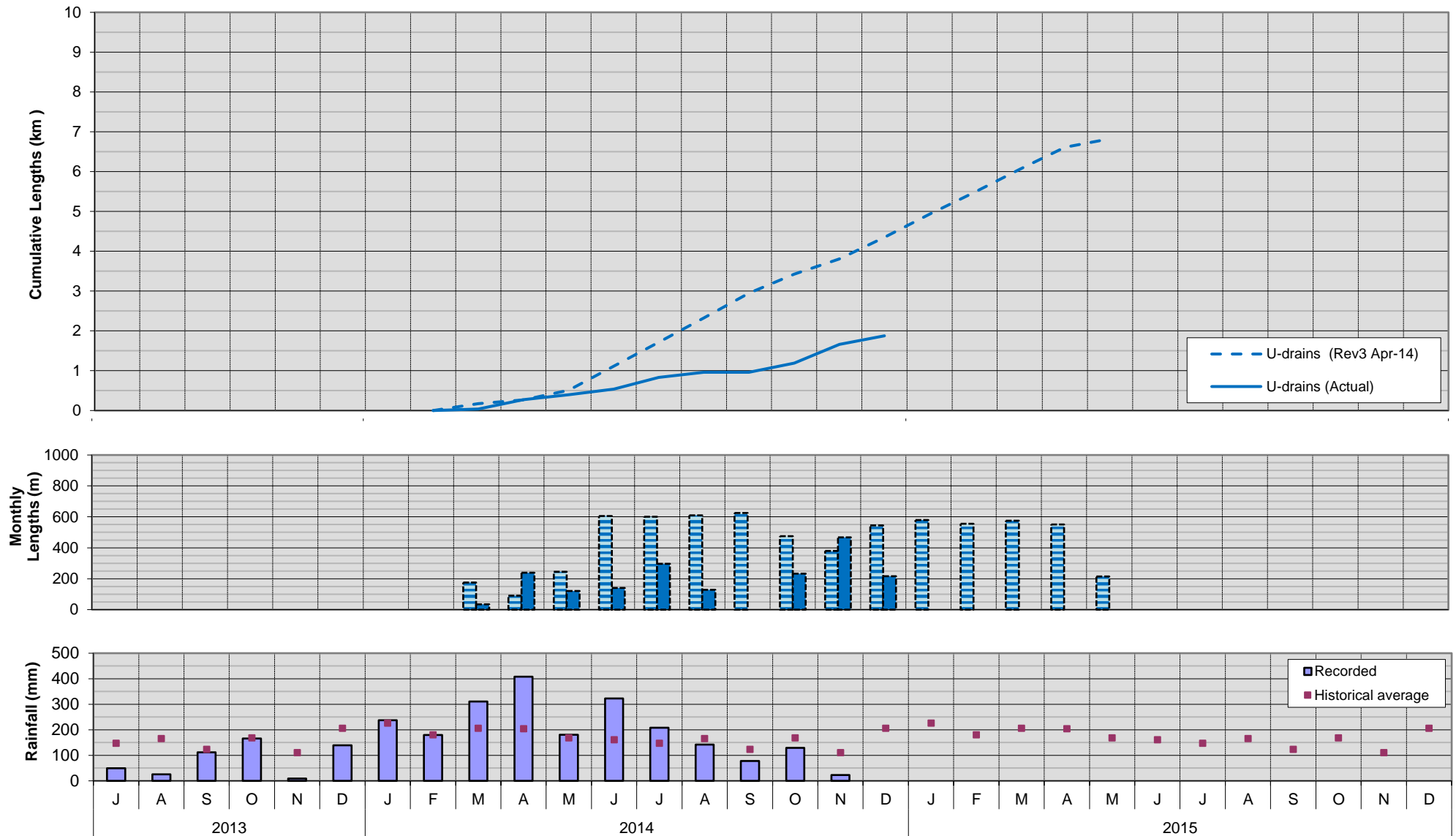
## **Appendix D:**

### **Progress graphs**

## **D.1 - Progress Graphs**

### **Betio-Temaiku Road**

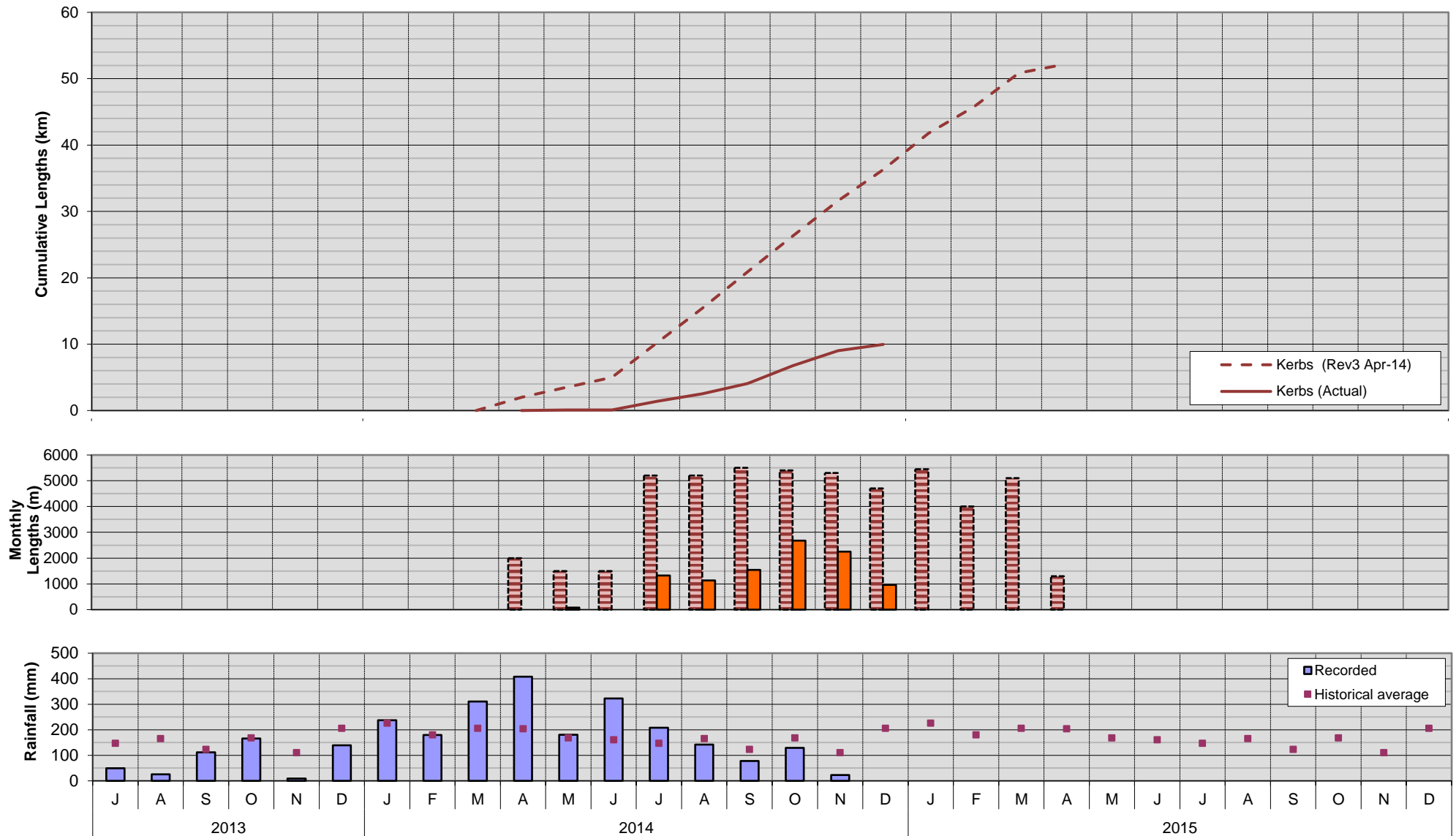
**KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01**  
**Betio-Temaiku Road (Ch 0-23950)**  
**Progress with U-drain Installation**



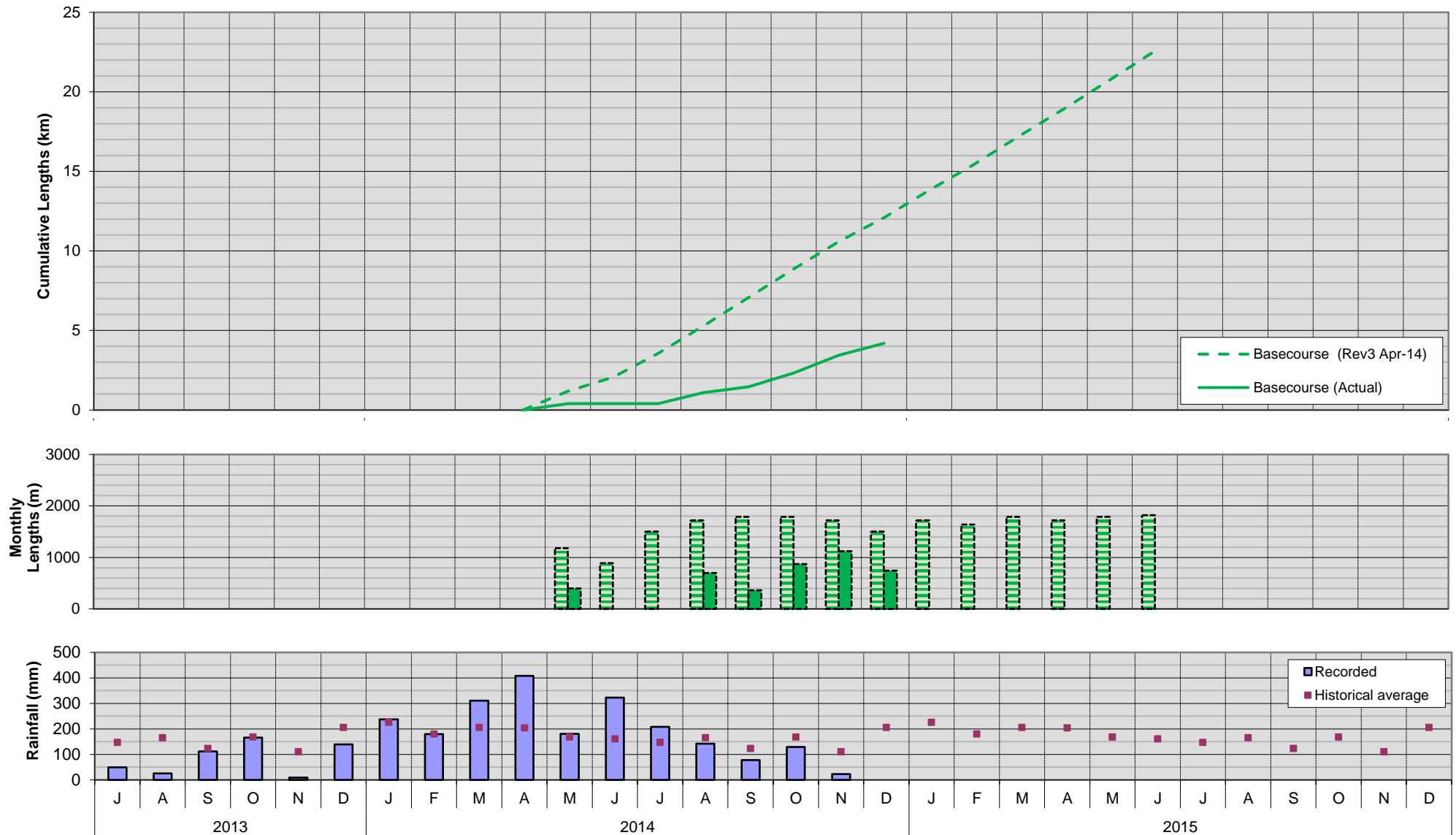
# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

## Betio-Temaiku Road (Ch 0-23950)

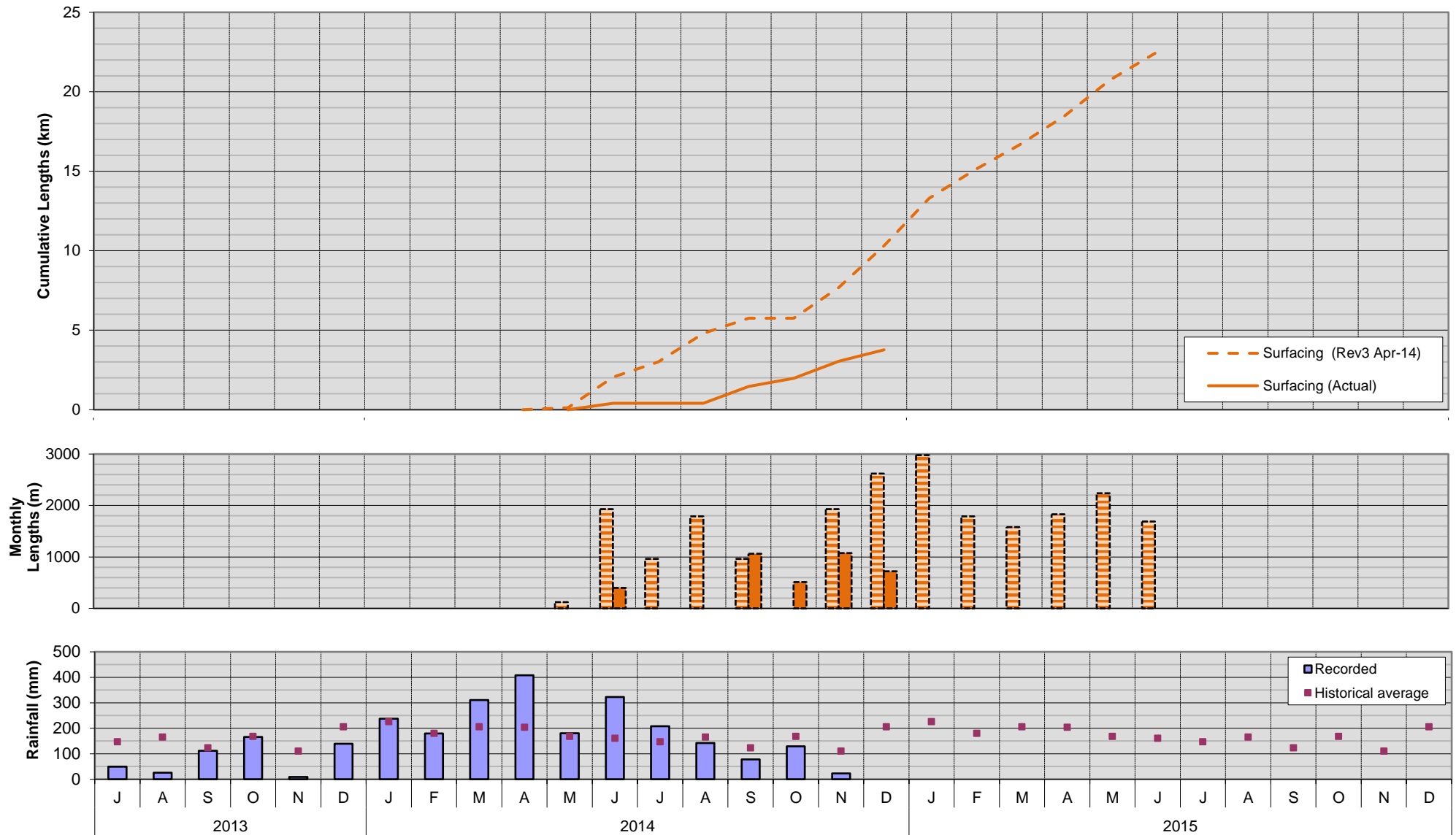
### Progress with Kerbing and Edge Strips



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01  
**Betio-Temaiku Road (Ch 0-23950)**  
 Progress with Basecourse Construction



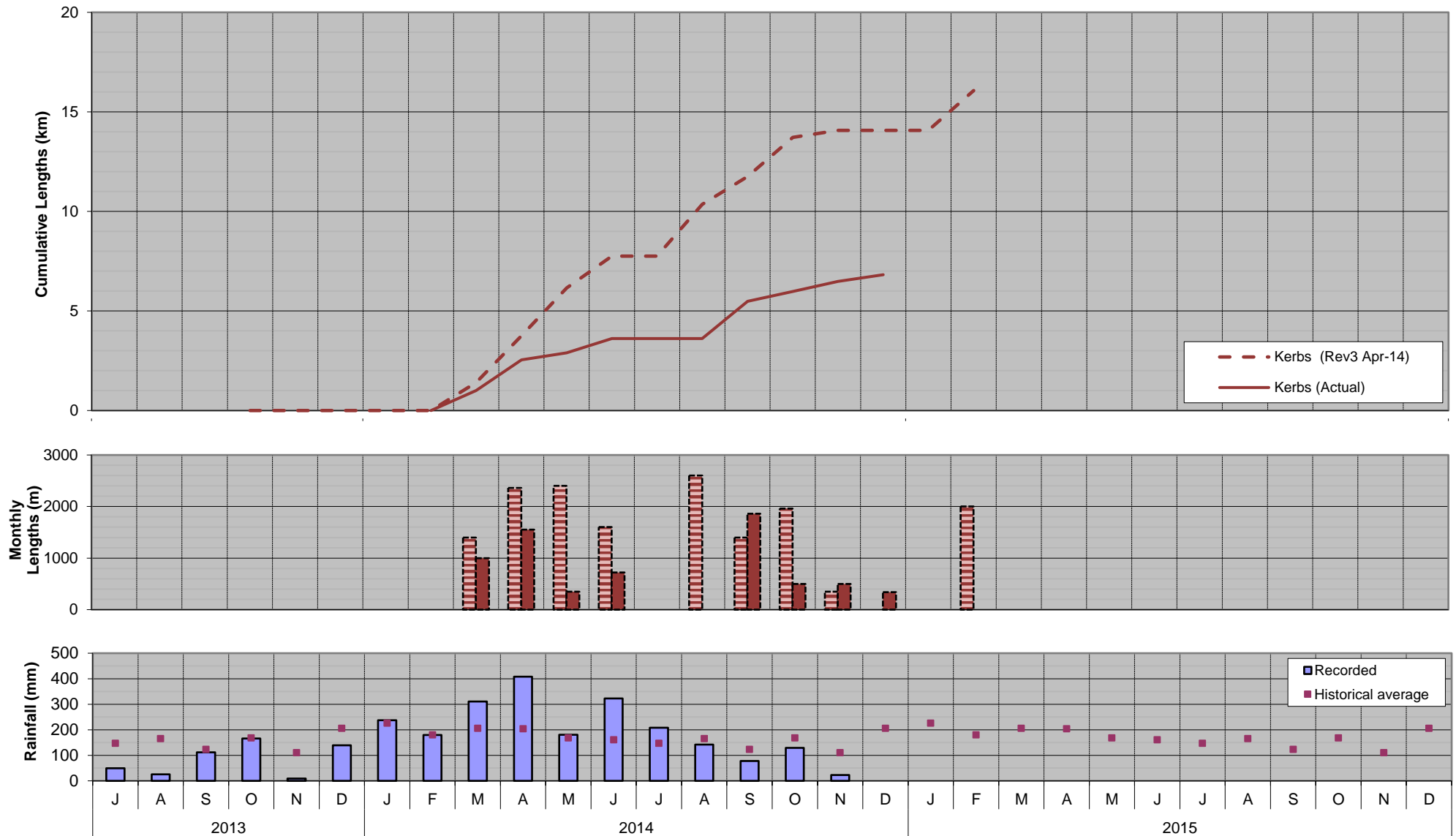
**KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01**  
**Betio-Temaiku Road (Ch 0-23950)**  
**Progress with Surfacing**



## D.2 - Progress Graphs

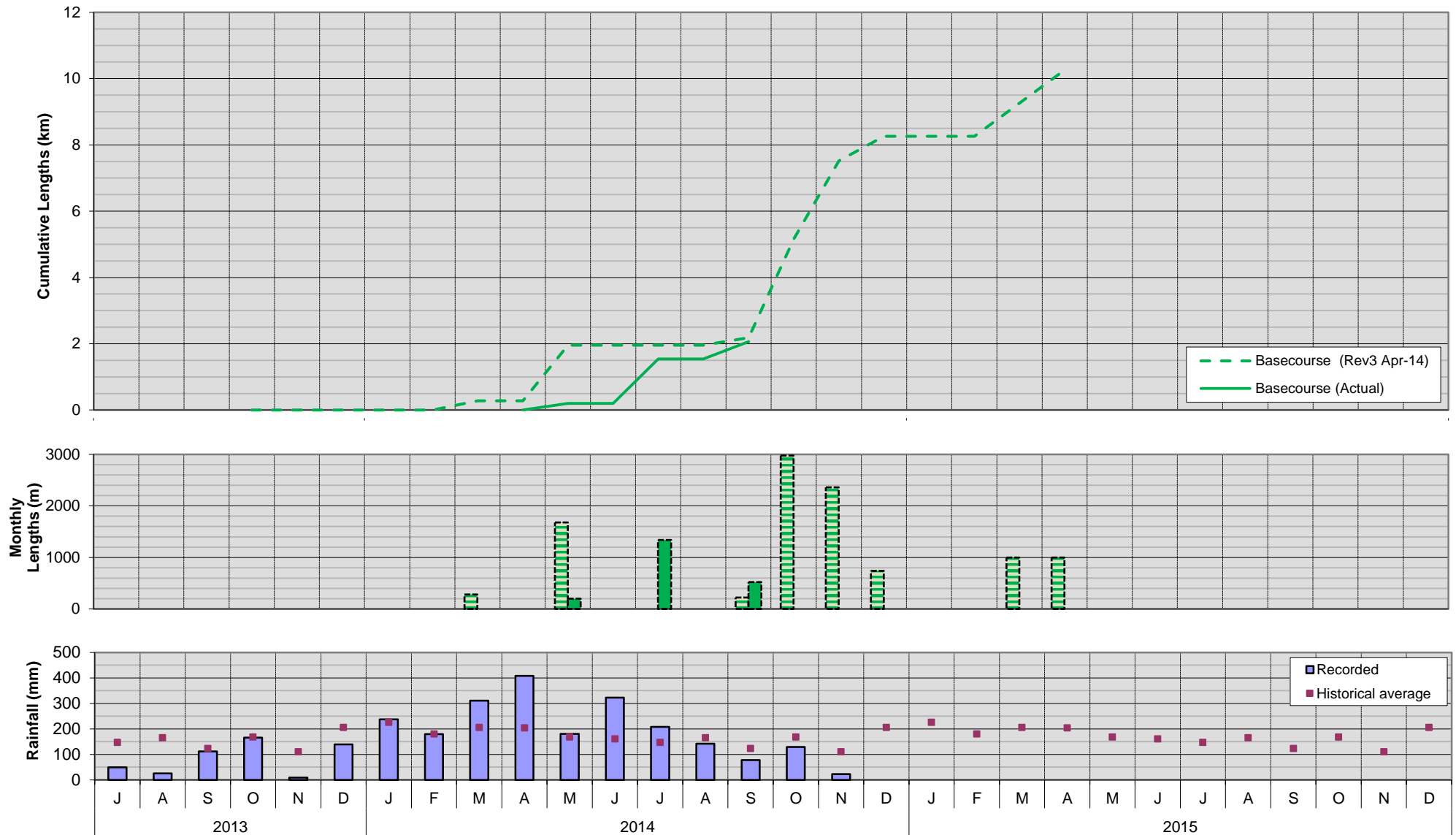
### Airport, Temauku & Buota Roads

**KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01**  
**Airport (Ch 0-2200), Temaiku (Ch 0-6100) and Buota (Ch 0-2000) Roads**  
**Progress with Kerbing and Edge Strips**

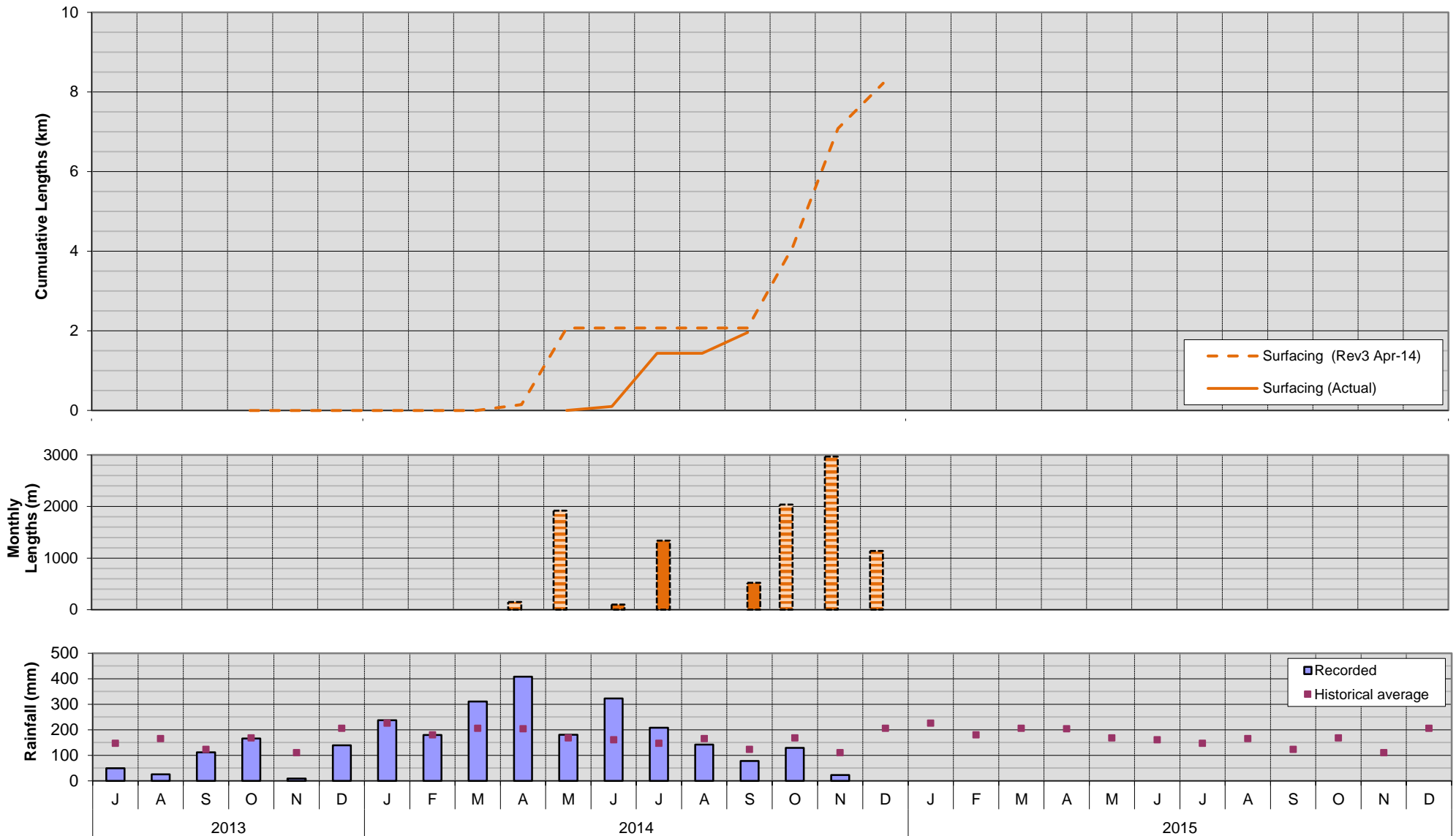




**KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01**  
**Airport (Ch 0-2200), Temaiku (Ch 0-6100) and Buota (Ch 0-2000) Roads**  
**Progress with Basecourse Construction**



**KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01**  
**Airport (Ch 0-2200), Temaiku (Ch 0-6100) and Buota (Ch 0-2000) Roads**  
**Progress with Surfacing**



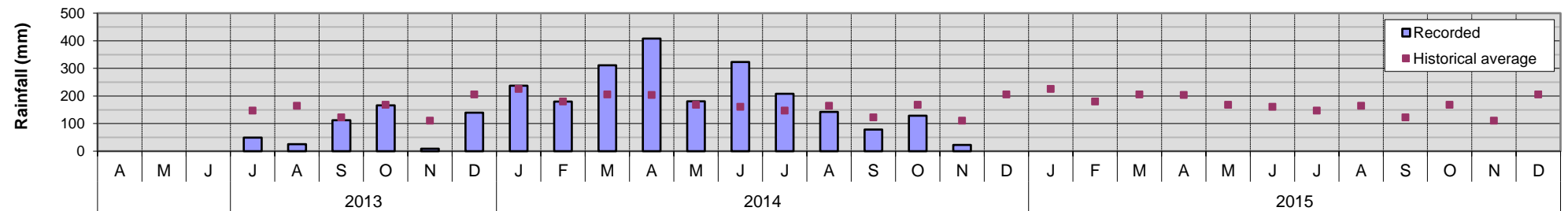
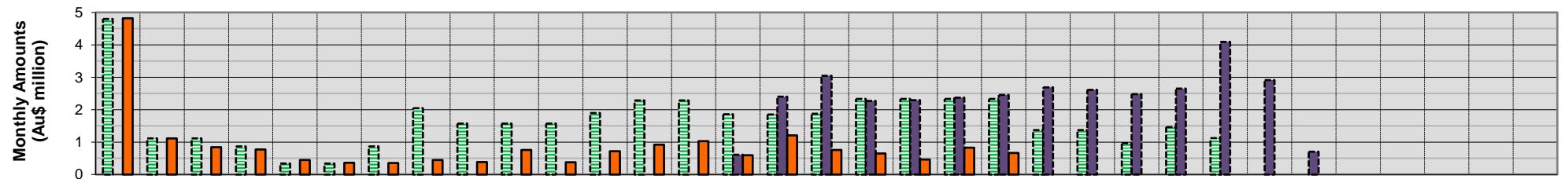
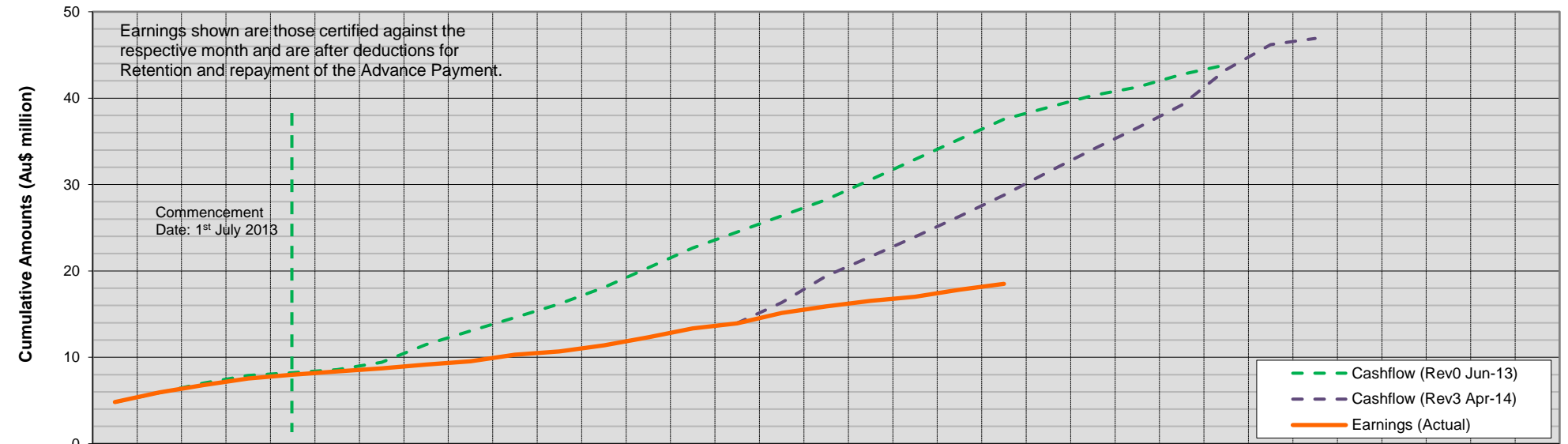
## Appendix E:

### Cash Flow

# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

**ALL Works**

## CASHFLOW (Expected) vs EARNINGS (Actual)



## **Appendix F:**

### **Complaints Summary**



# KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
1	Kiribati Community Club	Bokai Kaiu (6000/50528)	2/10/2013	MCD Yard (Betio)	Adjacent to meterologic al station	Management	KCC will be building multi-purpose court on part of the area being used by MacDow for stockpiling and storage. Request made to move stockpile to allow development to proceed.	Contractor	Letter of ref 29/38 dated 02/10/13	14/10/2014	MCD	MCD had submitted all copies of letters of approval to MPWU as evidence that they had had full approval to utilise the site from Lands Departement and MET Services. The area was however cleared to allow works to proceed.	To date MCD still utilising main site
2	Civil Aviation (Aako Teikake)	mobile: 91083 email:ateikake@hotmail.com	12/02/2014	TR	5+800 (RHS)	Management	The contractor's plants, machineries and basecourse materials (stockpile) were parked/sited too close to the airport facilities. Although initially approved (as request was thought to be short term) request if they could be moved.	Engineer	Other (state in remarks)	19/02/2014	Engineer	The Contractor moved and all plants and materials away from the area.	Resolved 19/02/14
3	Owner of resident	Tiure (LANDS) on behalf 21283	24/02/2014	TR	4+760	Compensation	Part of fence (6.0m) knocked down during trees removal in the area	Engineer/consultants + MPWU head office	Telephone	24/02/2014	Engineer	Contractor reinstated the fence.	When checked on 28/03/2014 the fence was back to its original state.
4	ECO Farm (Iobi)	61040	18/03/2014	Access road Asphalt Plant		Engineering	Concerns over access road into the new asphalt facility and how this might impact on potential flooding, vandalism and poaching.	Engineer/consultants + MPWU head office	Email			Contractor has been monitoring the situation.	No follow up complaints have been received in respect of concerns that had been raised.
5	Enari Bauro		2/04/2014	Mainroad	5+800	Engineering	Complaint by leaseholder over 'stopping bay' (owner already agreed to position) - position marked and further discussions 15 Jul 2014	Engineer	Other (state in remarks)	2/04/2014	Engineer	To look at possibilty to shift SP say 10m -15m east (still within the same property) or provide phycal barrier to protect the adjacent property.	Resolve Stopping place relocated



# KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
6	Tareeti/Ainete		2/04/2014	Mainroad	5+975	Engineering	SP is right under verandah/porch of Rainbow store. (Store is now temporary closed)	Engineer	Other (state in remarks)	2/04/2014	Engineer	When consulted Ainete confirms the store is temporary closed awaiting materials for renovation/upgrading works.	Having the SP as marked/pegged out is okay with her provided no bus shelter is to be built as it will be an obstruction.
7	Naomi Biribo	ph: 21099/21144	11/04/2014	Mainroad	23+365	Management	Resident in Nowerwere complained about works starting (on drainage outfall) and expressed concern over potential impacts to adjacent properties.	Engineer	Email	11/04/2014		Engineer/Contractor community liaison personnel talked to Biribo to explain what was happening.	Community liaison personnel to be more active in making the general public more aware of what is happening.
8	Tarataake Angiraoi	email: radio.kiribati@gmail.com	25/04/2014	Mainroad	5+400	Management	Concern with MacDow fencing and containers placed on storage/plant yard near transmitter station along Bairiki causeway (and impacts on underground earth conductors and radio transmissions)	MPWU	Email	28/04/2014	Engineer/consultants + MPWU head office	MacDow met with BPA on 28/4/14 to explain their methods and procedures and the situation was amicably resolved with MacDow still able to use the space currently occupied.	Resolved
9	Immigration Officer		2/05/2014				This involved the discourteous and abrupt attitude of MacDow staff member.			2/05/2014		The matter has been resolve and the Immigration Officer has accepted apology from the MacDow office.	Resolved
10	Tekitanga Children		10/05/2014	Drain Easement	7+200		Son of Tekitanga confronted Contractor regarding installation of Manhole on their plot of land without their consent	Engineer	Direct	10/05/2014	Engineer/consultants + MPWU head office	Main issue turned out to be the removal of material (spoil) from the property - Contractor agreed to replace material and this resolved the matter.	resolved 14/05/14
11	Roota Landowner		13/05/2014	Mainroad	23+180 plus	Compensation	Wife of Landowner complains 2 coconut and 2 breadfruit tress have removed without her consent. Already notified and agreed that only young coconut trees was to removed only	Engineer/consultants + MPWU head office	Telephone	15/05/2014	Engineer/consultants + MPWU head office	Contractor to settle this compensation in the amount \$546.00 before end of this week	Resolved as MacDow already pay the compensation



# KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
12	Director of Hospital	<a href="mailto:burentau@gmail.com">burentau@gmail.com</a>	4/06/2014	Mainroad	24+400	Engineering	Portion of hospital concrete block wall was accidentally opened up during road clearing enabling roaming dogs etc entering hospital premises.	Engineer	Telephone	4/06/2014	other (state in remarks)	MacDow had already as temporary measure blocked opening with plywood. Pemanent measure to be deployed onced work commences on the hospital entrance.	Resolved
13	Ms Tertia Ioromi	mobile: 61828	13/06/2014	Mainroad	23+800 - 23+900	Compensation	Loss of income on store sales as a result of ongoing construction activity.		Email	17/06/2014	Engineer/Consultants + KFSU	MacDow liaison officer explained current levels of activity and timeline which was accepted and the matter closed.	Resolved
14	Betio Primary School		14/08/2014	Feeder Rpad Betio		Safety	Damage to sewer main (possibly due to UXO survey works).	MPWU	Email	14/08/2014	Engineer/consultants + MPWU head office	Contractor agreed to reimburse cost of necessary repair works.	Resolved same day
15	Sarbane Foon		25/08/2014	Main road	23+900	Engineering	Domestic/Commercial electrical cable broken during roads work in the area. PUB attend to it but after some time it fails again and when reported to PUB they confirm faulty cable some where. Should be noted that this commercial restairant been out of electricity for almost 4 months.The average daily income of \$1500/day been loss and request urgent action to have the electrical supply fixed.	Engineer/consultants + MPWU head office		26/08/2014	Engineer	Inspected the site with Fidez and PUB men who carried out the checks on the connections they previous made. They confirm the connections are alright but still drips/cut from the distribution box when switched -on, indicating faulty cable somewhere. They also mentioned part of the cable that runs under the U dicit could be the cause.	Considering the duration which is almost 4 months urgent remdial action is required to enable the business to operate again.It is proposed that Contractor supply and lay new cable to the PUB Box on the LHS approx 80m west. <b>This already completed when inspected on 12/09/2014.</b>





# KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
16	Ms Aramitati Birirake		11/09/2014	Main Road	7+625	Compensation	Ms Aramitati Birirake who resides at Teaoraereke lodges the complaint. Her complaint is compensation claim for loss of fruits from her breadfruit tree. This happened during the cutting of the huge casuarina tree at Teaoraereke (opp Usp) last weekend where the tree took down with it 2 branches of the breadfruit tree that had fruits on it. She cannot say how many fruits were damaged but was sad with the loss as some of the fruits were nearing maturity	Engineer/Consultants + World Bank	Email	12/09/2014	Engineer/consultants + MPWU head office	MacDow Community Liaison officer Elizabeth is working on it trying to get from Lands the correct rate to use otherwise adopt the current market price for breadfruit which \$3.50/fruit.	Paid to her \$81.25 and closed. Resolved
17	Nei Tumea Teriaki	Bonnano, Bikenibeu	19/09/2014	Main Road		Compensation	It concerns the loss of breadfruits on branches that were cut during the clearing and grubbing work conducted last week	Engineer/consultants + MPWU head office	Email	19/09/2014	Engineer	The complainant is directed by MacDow to seek advise from the Lands Management Office for compensation.	Resolved as satified with Lands explanations
18	Mr Tebuka Baute	Angaieta Betio Mobile: 61353	9/10/2014	Feeder Rpad Betio		Management	Power outage from cut power cable during Milsearch UXO survey in the area	other (state in remarks)	Email	1/08/2014	other (state in remarks)	The complainant is directed to MacDow who will liaise with PUB to rectify the issue/problem.	
19	Mr lotua Tune	LDS phone: 686 29715	10/10/2014	Main Road	22+275	Engineering	LDS church raised concern that proposed raised kerb is limiting parking space for their church members and request if it could be extended to west end boundary	Engineer/consultants + MPWU head office	Email	13/10/2014	Engineer	The Stopping Place is now extended as requested	Resolved as per ITC 237 dated 14/10/14



## KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
20	Farran Redfern	<a href="mailto:farranredfern@gmail.com">farranredfern@gmail.com</a>	15/10/2014	Mainroad	20+475	Environmental	Farran rejects the Bus Stop in front of his house as was never aware about it.	Engineer	Email	16/10/2014	Engineer	This Stopping Place will be marked or highlighted to TUC that it should never become designated a bus stop	Resolved 17/10/14
21	Aritaake Taraia	Bonnano Bikenibeu	20/10/2014	Main road	21+741	Compensation	Aritaake complained that his rental house electrical cable been cut since Friday 17/10/14 and to date still not yet fixed. Aritaake was very annoyed and frustrated with the workers (MacDow) because they already knew the location of his buried cable when they first damaged it on the LHS mid last month, secondly when they lowered the portion under the road and now damaging it again on the RHS. He strongly objects to PUB methodology of repaiting the damaged cable which is just sealing with insulation tape. Tendency is very high that these two connections is likely to fail in future as they are exposed to weather. Future repair would be very expensive for him and therefore request if a new cable is supplied and fixed to replace the damaged one.					ITC 241 issued 20/10/14 instructs Contractor to liaise with Taraia and replace broken cable with new one from store and to run it through existing conduit	Resolved 20/10/14



# KIRIBATI ROAD REHABILITATION PROJECT

CONTRACT No. KIR-12/01

Complaint database

ref.no	Complainant		Complaint Information							Resolving Complaint			Remarks
	Name	Contact	Date	Road name	Chainage #	Type of complaint	Complaint	Received by	Received through	Date	Supervisor(s)	Action(s) taken	
22	Ueaieta Tebanana	Bikenibeu phone: 64231	23/10/2014	Mainroad	22+025	Compensation	The wife and kids of Ueaieta (landowner) question why the stopping place is still on their land when they had already conveyed their objection in the first consultation?					It is explained with great apology that this is an oversight as according to list of compensation that already paid, it should be on the adjacent land (east) whose landowner Francis Ngalu already agreed/collected the compensation. However, if they still object this to stopping place then it will be moved to its proper location. It is also clearly explained that a bus shelter is not to be provided to all the stopping places. They finally agreed to have it on their land as a Stopping Place, but not a Bus-Stop with shelter and request compensation for portion of there land been taken up.	Resolved
23	Kamaniko Kaekateata		8/11/2014	Mainroad	21+800	Engineering	The wife of the landowner disputed and stopped the kerb concrete works on 08/11/14 by standing in the trench/formwork. She complained that without raised kerb in the stopping place in-front of her resident, vehicles were likely to run onto her property or her kids. She wanted raised kerb to be incorporated and flush kerb only to enable their access.	Engineer	Other (state in remarks)	8/11/2014	Engineer	ITC 254 issued 10/11/14 confirming requirement to have raised kerb to both ends of the stopping place and flush kerb only at back.	Resolved 10/11/2014
24	Boramakin Tamakai Nagiru		4/11/2014	Mainroad	21+800 (RHS)	Engineering	The complaint was about the access provided for them is not big enough for their vehicle	Engineer	Telephone		Engineer	ITC 262 issued around 13.55pm on 14/11/14 instruct contractor to widen the access to standard width	25 /11/14 still not done

## Appendix G:

### Weather

**Appendix H:**

**Schematic Progress Diagrams  
(and selected photos)**

## H.1 – Schematic Progress Diagrams

### Betio-Temaiku Road

# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

December 2014  
**Main Betio-Temaiku Road**  
**Progress Summary**  
 % Complete on km by km basis

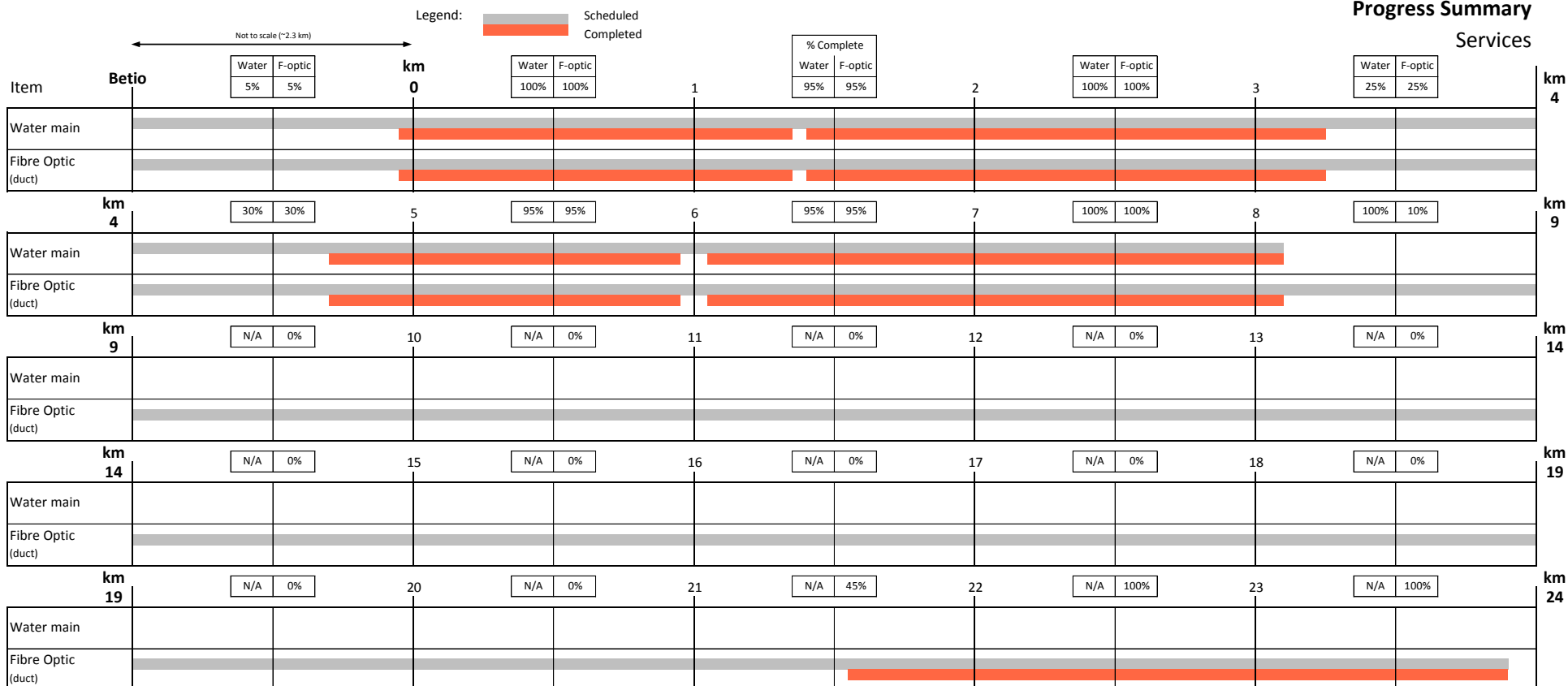
Item	Betio	km																								km 24	Over Full Road Length
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Speed hump/ Gateway	N/A	N/A	N/A	N/A	N/A	N/A	0%	0%	0%	N/A	0%	0%	0%	N/A	0%	0%	0%	0%	0%	0%	0%	N/A	0%	0%	0%	25%	2%
Carriageway (asphalt)	N/A	100%	N/A	N/A	N/A	93%	50%	66%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	68%	100%	18%	
Shoulder/footpath (asphalt)	N/A	100%	N/A	N/A	N/A	93%	79%	79%	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A	100%	100%	29%	
Basecourse (new - imported)	N/A	100%	N/A	N/A	N/A	93%	50%	71%	0%	0%	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	33%	
Basecourse (regulated)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	30%	88%	100%	14%	
Basecourse (new coral)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%		
Edge strip	N/A	100%	N/A	N/A	N/A	93%	88%	85%	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	N/A	100%	100%	31%	
Kerb	N/A	N/A	N/A	N/A	N/A	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	100%	94%	100%	18%	
Footpath (concrete)	N/A	N/A	N/A	N/A	N/A	0%	0%	0%	0%	N/A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	
U-drain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	37%	0%	0%	0%	0%	N/A	0%	0%	0%	0%	0%	N/A	100%	100%	N/A	N/A	100%	39%	
Water main	5%	100%	95%	100%	25%	30%	95%	95%	100%	100%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	65%	
Fibre Optic (duct)	5%	100%	95%	100%	25%	30%	95%	95%	100%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	45%	100%	100%	28%	

# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

## Schematic Diagram showing progress of Key Activities

December 2014  
Main Betio-Temaiku Road

## Progress Summary



## Photographs:

Item	% Complete
Water main	65%
Fibre Optic (duct)	28%



1 Location: Ch 8+000 Direction: Looking Down chainage  
Description: Installing water transmission main (200mm)



2 Location: Ch 7+950 Direction: Looking Down chainage  
Description: Installing water transmission main (200mm)

3 Location: Direction:  
Description:



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

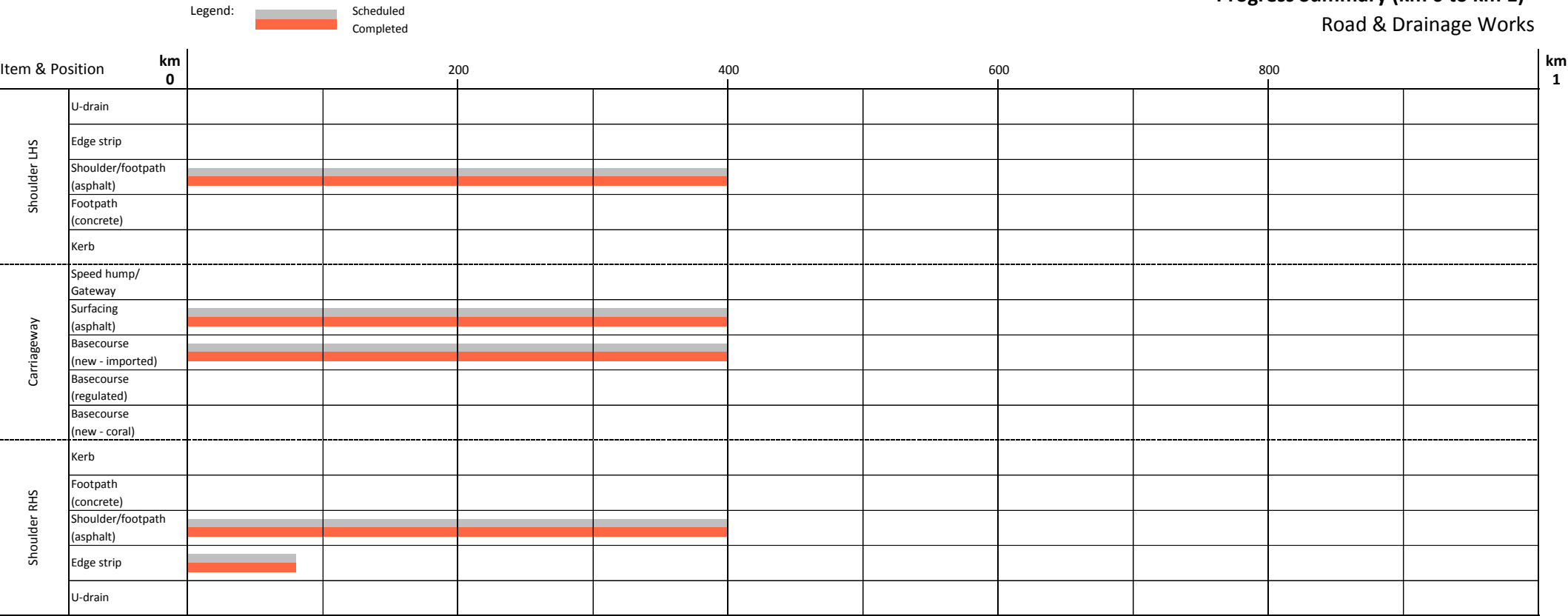
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 0 to km 1)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	100%
Shoulder (asphalt)	100%
Basecourse (imported)	100%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	100%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

- 1 Location: Ch 0+300 Direction: Looking Down chainage

Description: Placing basecourse (imported) material
- 2 Location: Ch 0+300 Direction:

Description: Asphalt paver and follow up rolling (RHS)
- 3 Location: Ch 0+300 Direction: Looking Up chainage

Description: Placing asphalt surfacing (LHS)

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 1 to km 2)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 1		200	400	600	800	km 2
Shoulder LHS	U-drain							
	Edge strip							
	Shoulder/footpath (asphalt)							
	Footpath (concrete)							
	Kerb							
Carriageway	Speed hump/ Gateway							
	Surfacing (asphalt)							
	Basecourse (new - imported)							
	Basecourse (regulated)							
	Basecourse (new - coral)							
Shoulder RHS	Kerb							
	Footpath (concrete)							
	Shoulder/footpath (asphalt)							
	Edge strip							
	U-drain							

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	N/A
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	N/A
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 2 to km 3)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 2											km 3
Shoulder LHS	U-drain												
	Edge strip												
	Shoulder/footpath (asphalt)												
	Footpath (concrete)												
	Kerb												
Carriageway	Speed hump/ Gateway												
	Surfacing (asphalt)												
	Basecourse (new - imported)												
	Basecourse (regulated)												
	Basecourse (new - coral)												
Shoulder RHS	Kerb												
	Footpath (concrete)												
	Shoulder/footpath (asphalt)												
	Edge strip												
	U-drain												

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	N/A
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	N/A
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 3 to km 4)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 3		200	400	600	800	km 4
Shoulder LHS	U-drain							
	Edge strip							
	Shoulder/footpath (asphalt)							
	Footpath (concrete)							
	Kerb							
Carriageway	Speed hump/ Gateway							
	Surfacing (asphalt)							
	Basecourse (new - imported)							
	Basecourse (regulated)							
	Basecourse (new - coral)							
Shoulder RHS	Kerb							
	Footpath (concrete)							
	Shoulder/footpath (asphalt)							
	Edge strip							
	U-drain							

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	N/A
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	N/A
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

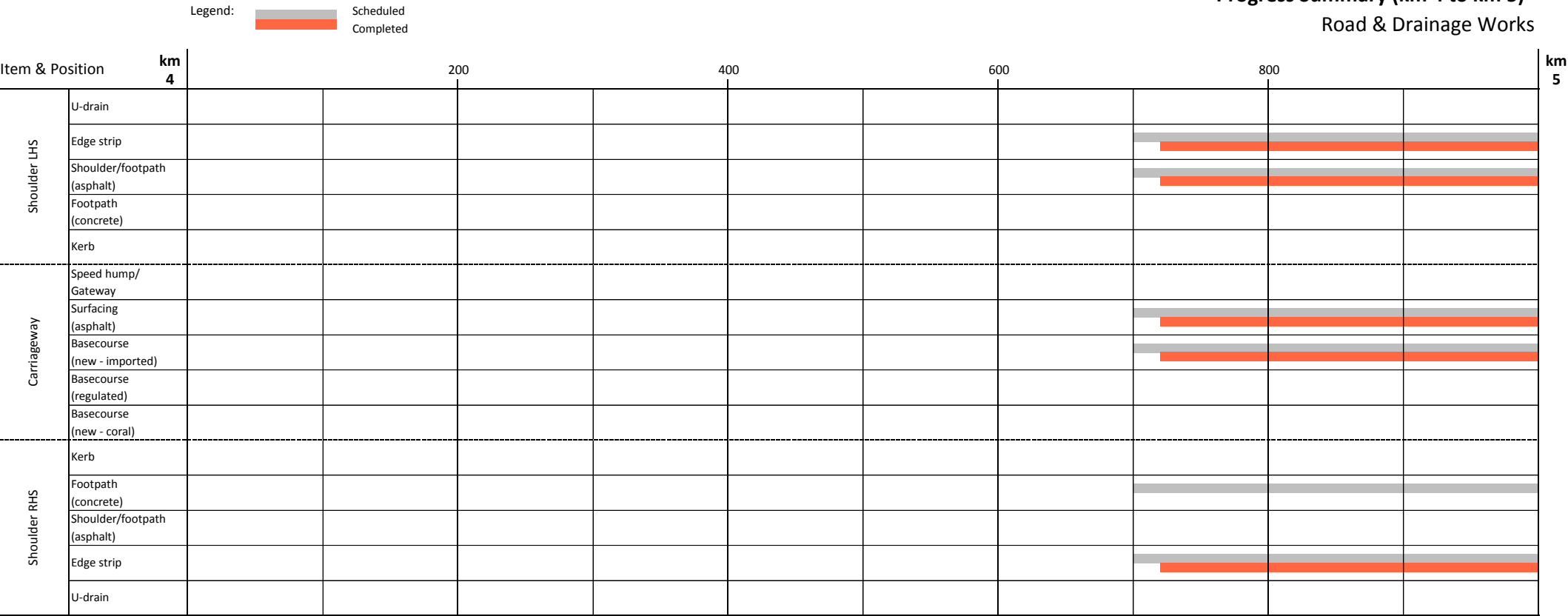
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 4 to km 5)

Road & Drainage Works



Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	93%
Shoulder (asphalt)	93%
Basecourse (imported)	93%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	93%
Kerb	N/A
Footpath (concrete)	0%
U-drain	N/A

Photographs:



1 Location: Ch 4+900 Direction: Looking Down chainage  
Description: Edge strips installed, sub-base prepared



2 Location: Ch 4+950 Direction: Looking Down chainage  
Description: Asphalt surfacing



3 Location: Ch 8+000 Direction: Looking Down chainage  
Description: Asphalt surfacing

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

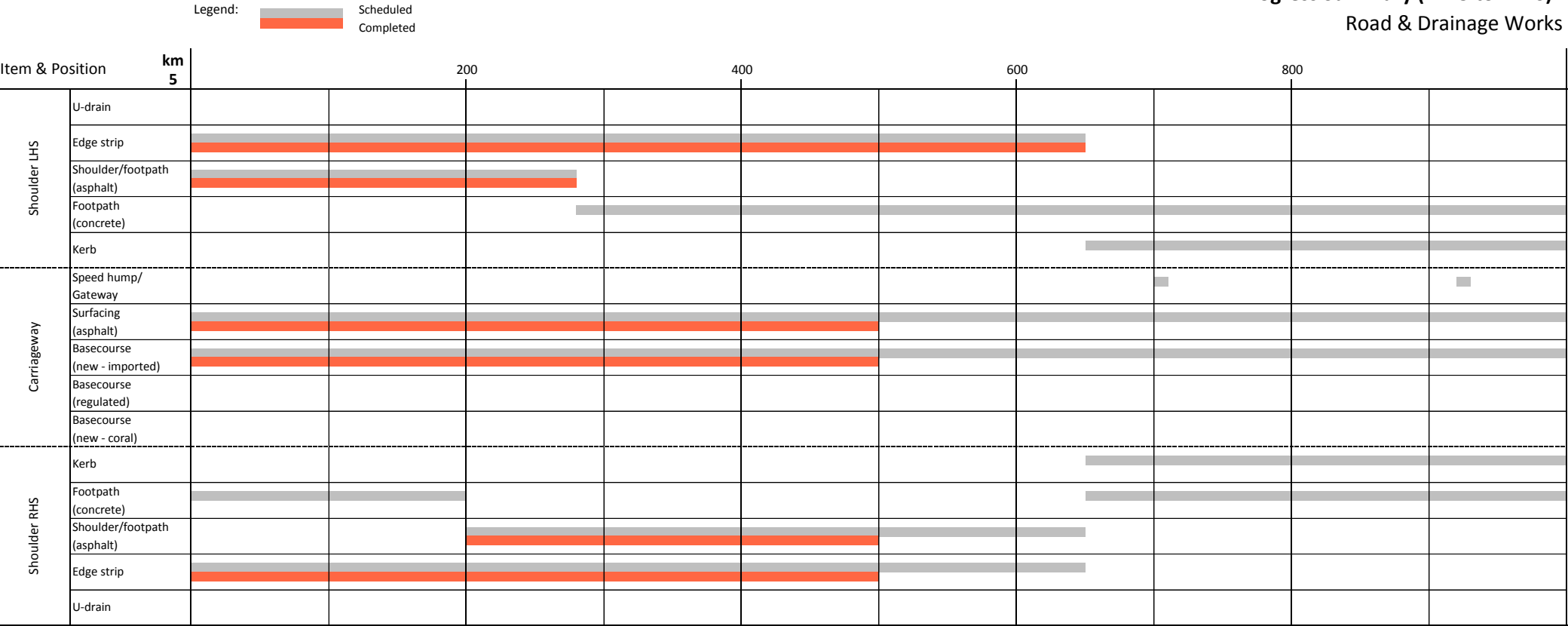
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 5 to km 6)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	50%
Shoulder (asphalt)	79%
Basecourse (imported)	50%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	88%
Kerb	0%
Footpath (concrete)	0%
U-drain	N/A

Photographs:



1 Location: Ch 4+900 Direction: Looking Up Chainage  
Description: Basecourse being prepared



2 Location: Ch5+300 Direction: Looking Down Chainage  
Description: Asphalt surfacing



3 Location: Ch 5+400 Direction: Looking Down Chainage  
Description: Completed surfacing

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

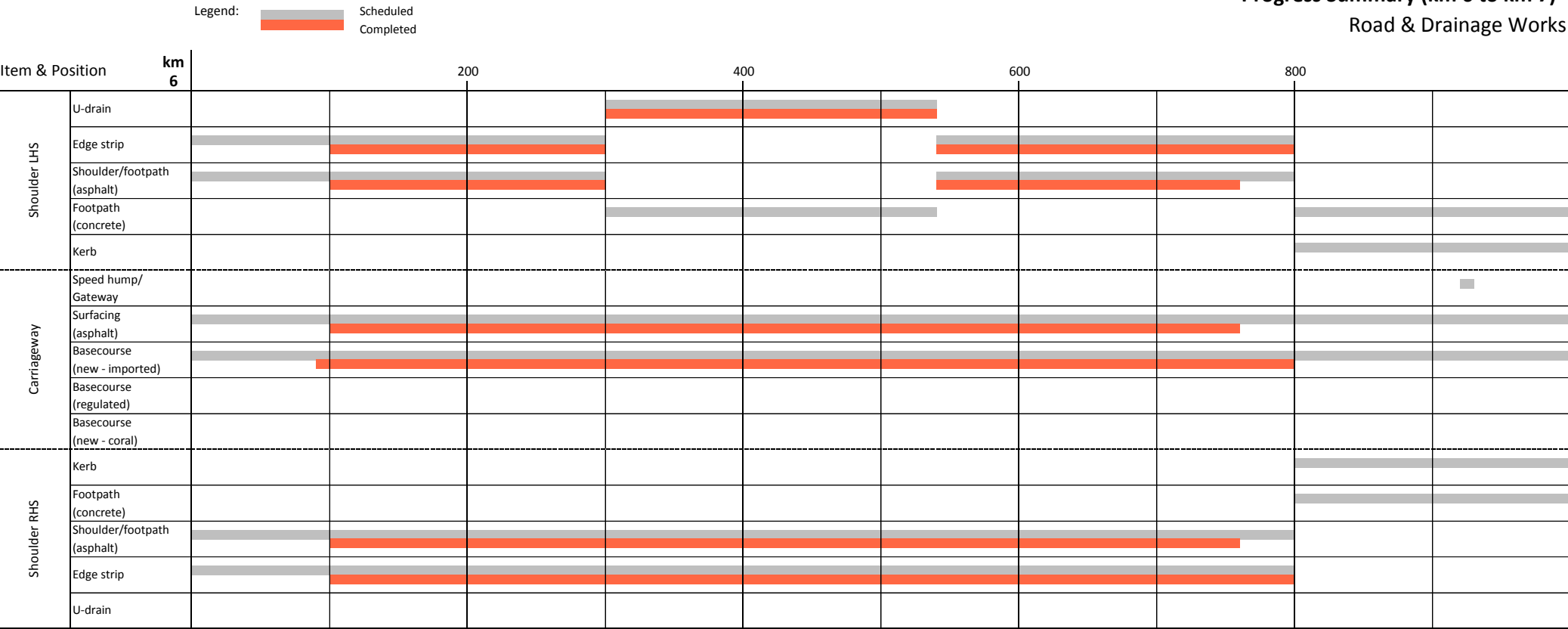
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 6 to km 7)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	66%
Shoulder (asphalt)	79%
Basecourse (imported)	71%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	85%
Kerb	0%
Footpath (concrete)	0%
U-drain	100%

Photographs:



1 Location: Ch 6+900 Direction: Looking Up chainage  
Description: Coastal protection/enabling works

2 Location: Direction:  
Description:

3 Location: Direction:  
Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

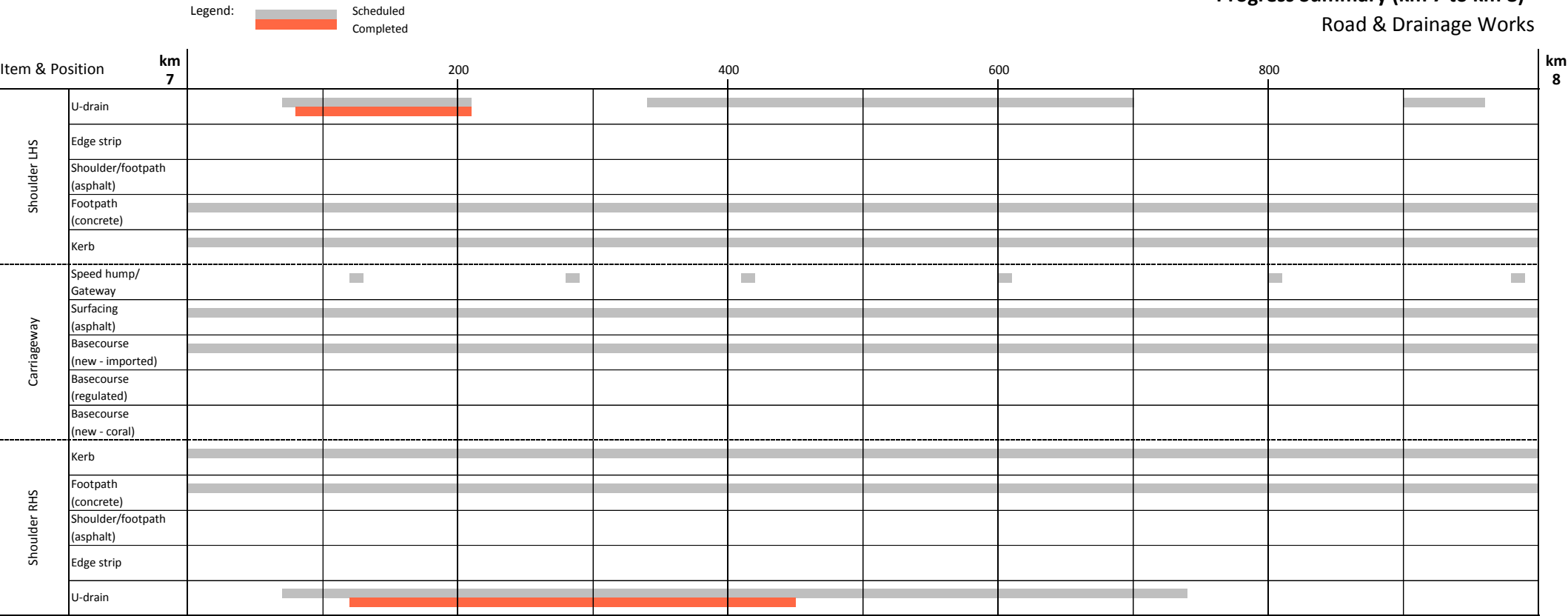
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 7 to km 8)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	N/A
Basecourse (imported)	0%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	N/A
Kerb	0%
Footpath (concrete)	0%
U-drain	37%

Photographs:



1 Location: Ch 7+300 Direction: Looking Down chainage  
Description: Installing u-drains



2 Location: Ch 7+300 Direction: Looking Up chainage  
Description: Installing u-drains

3 Location: Direction:



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

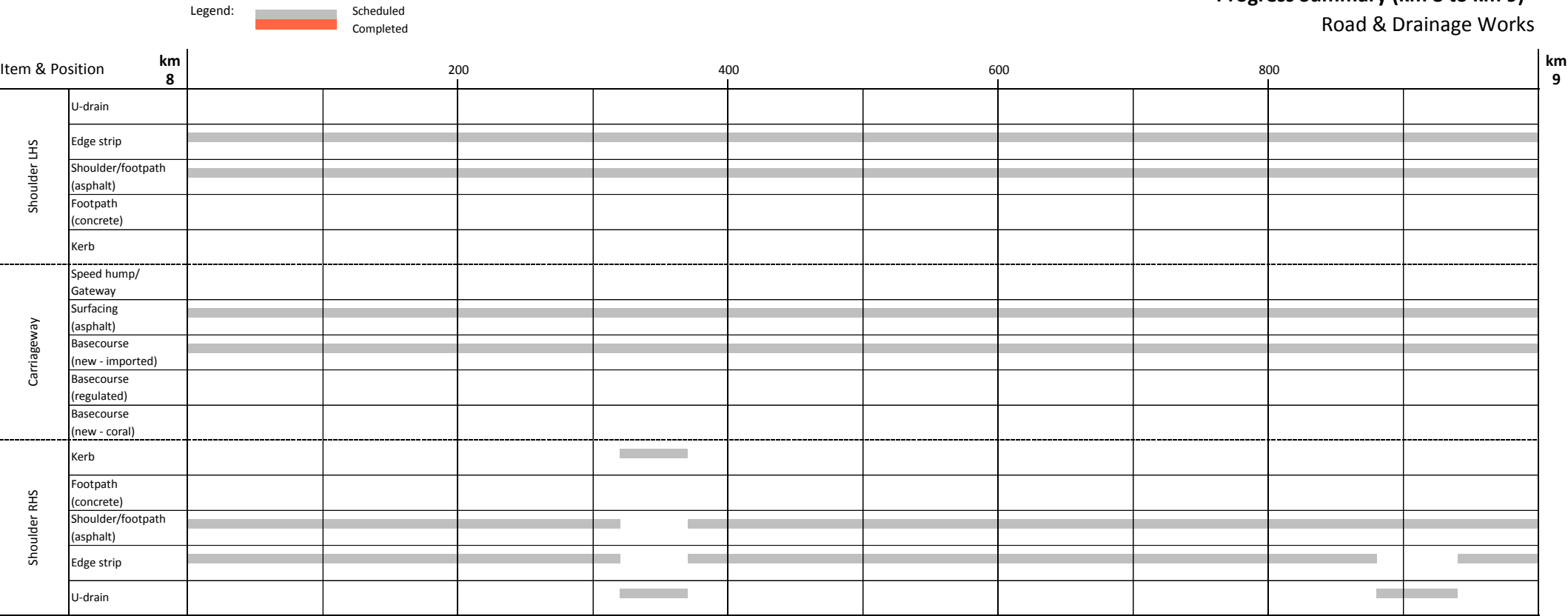
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 8 to km 9)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	0%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	N/A
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

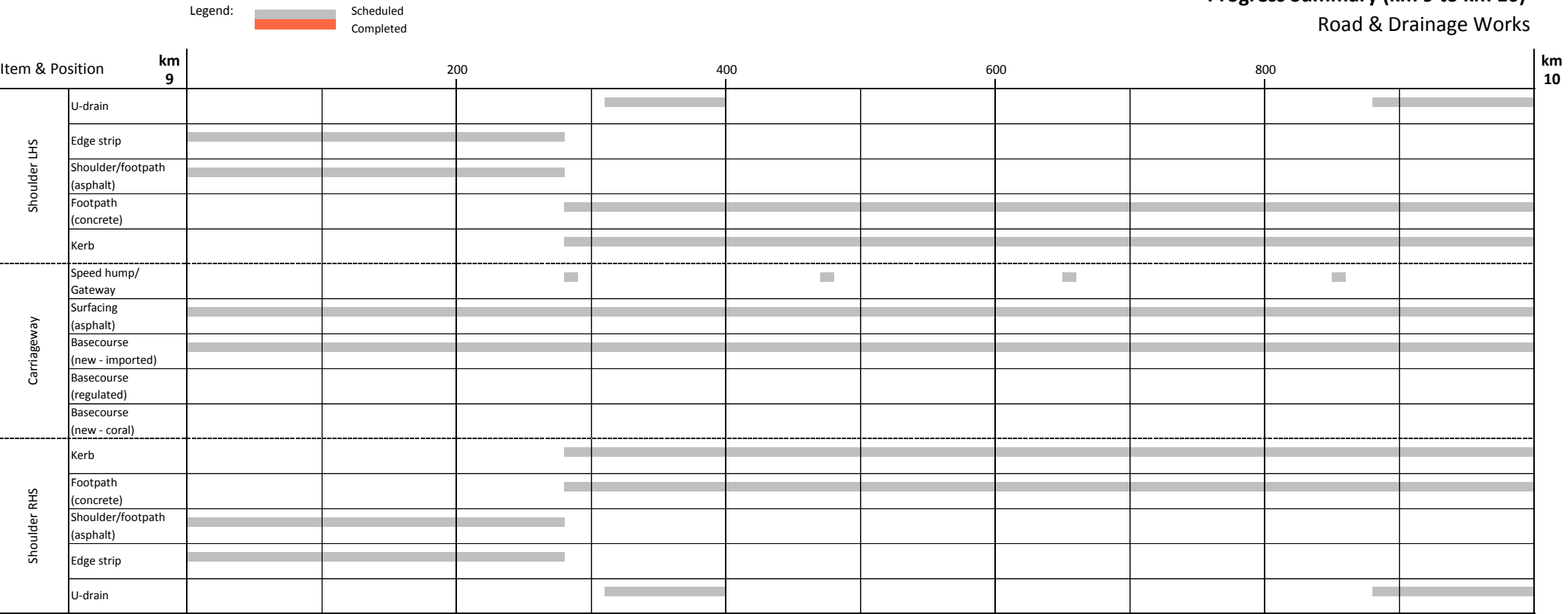
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 9 to km 10)

Road & Drainage Works



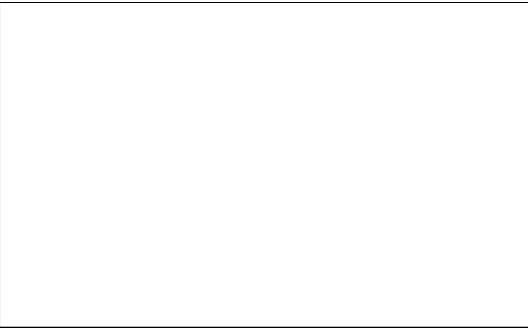
Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	0%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

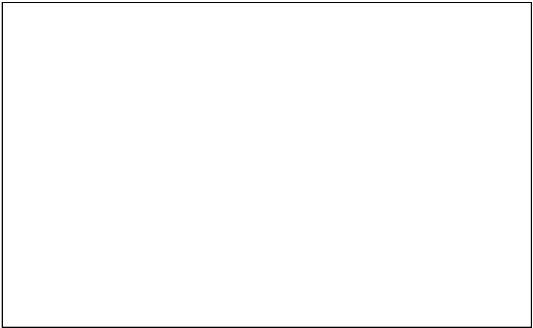
Photographs:



1 Location: Ch 9+300 Direction: Looking Up chainage  
Description: Coastal protection/enabling works



2 Location: Direction:  
Description:



3 Location: Direction:  
Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

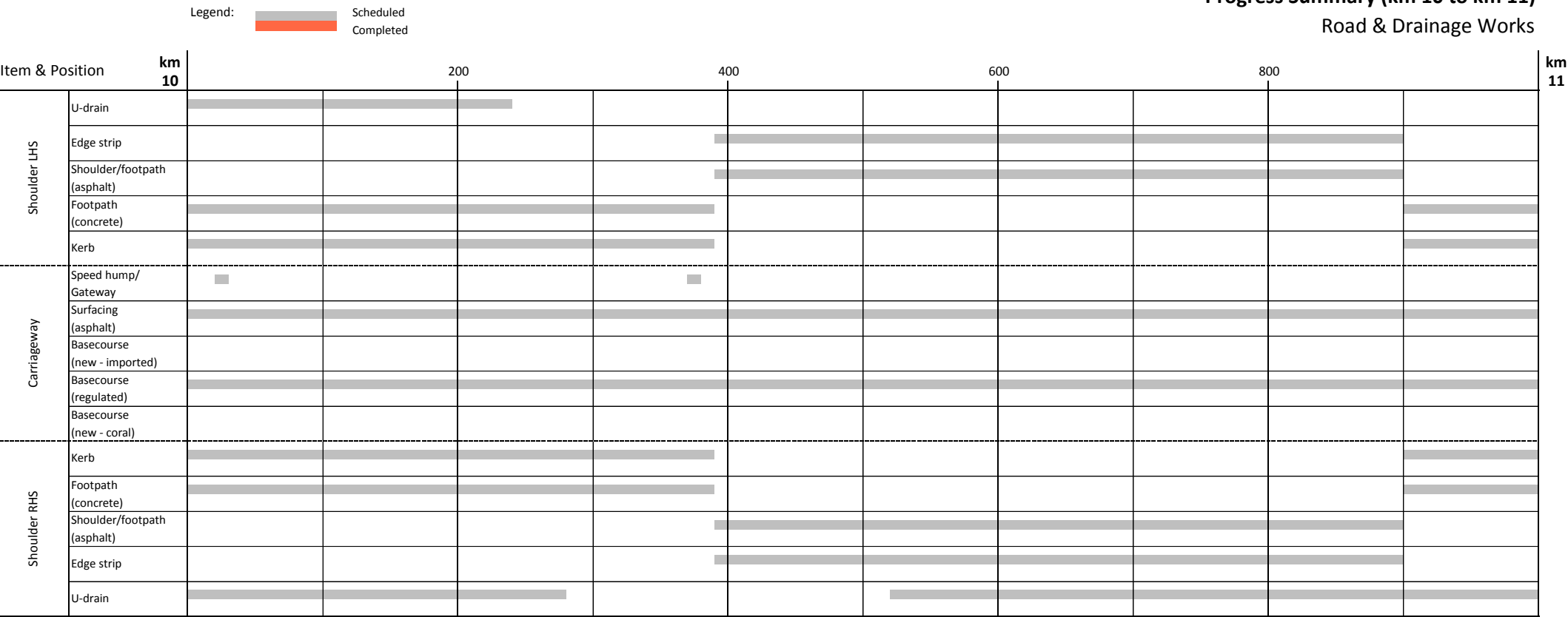
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 10 to km 11)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

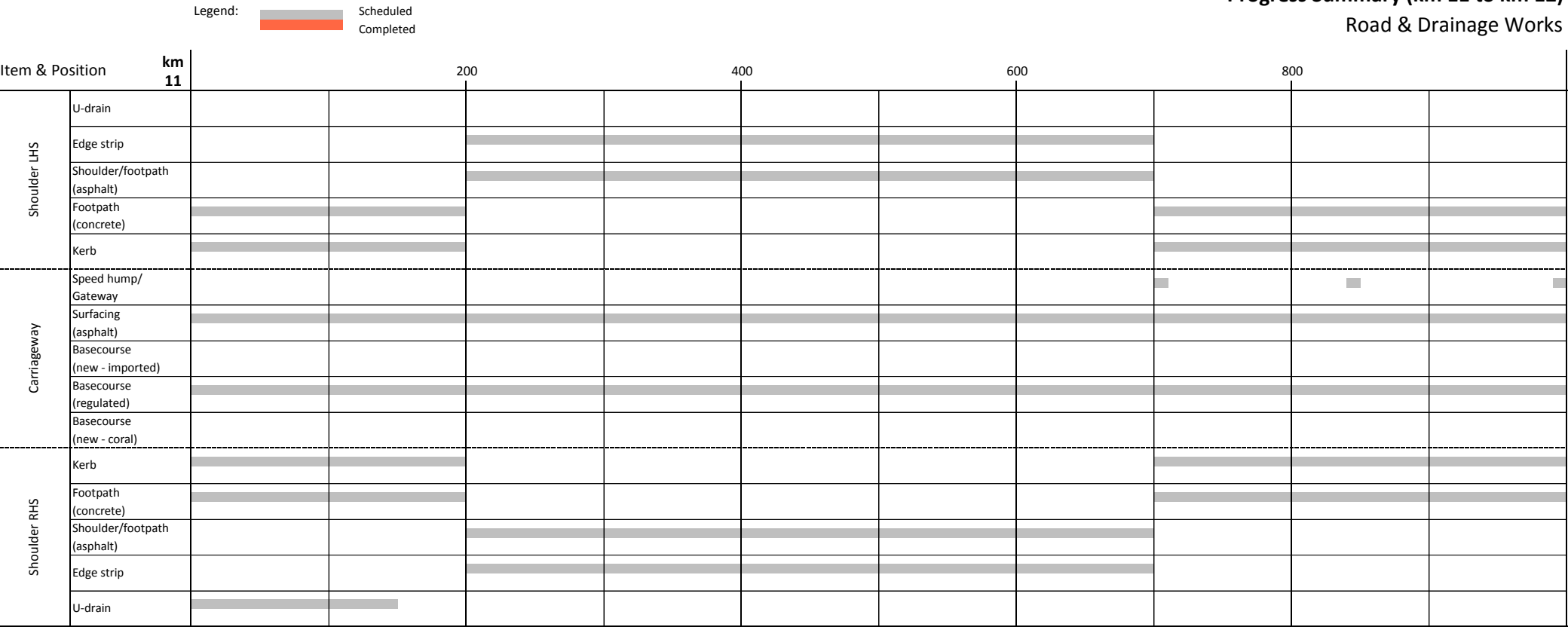
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 11 to km 12)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

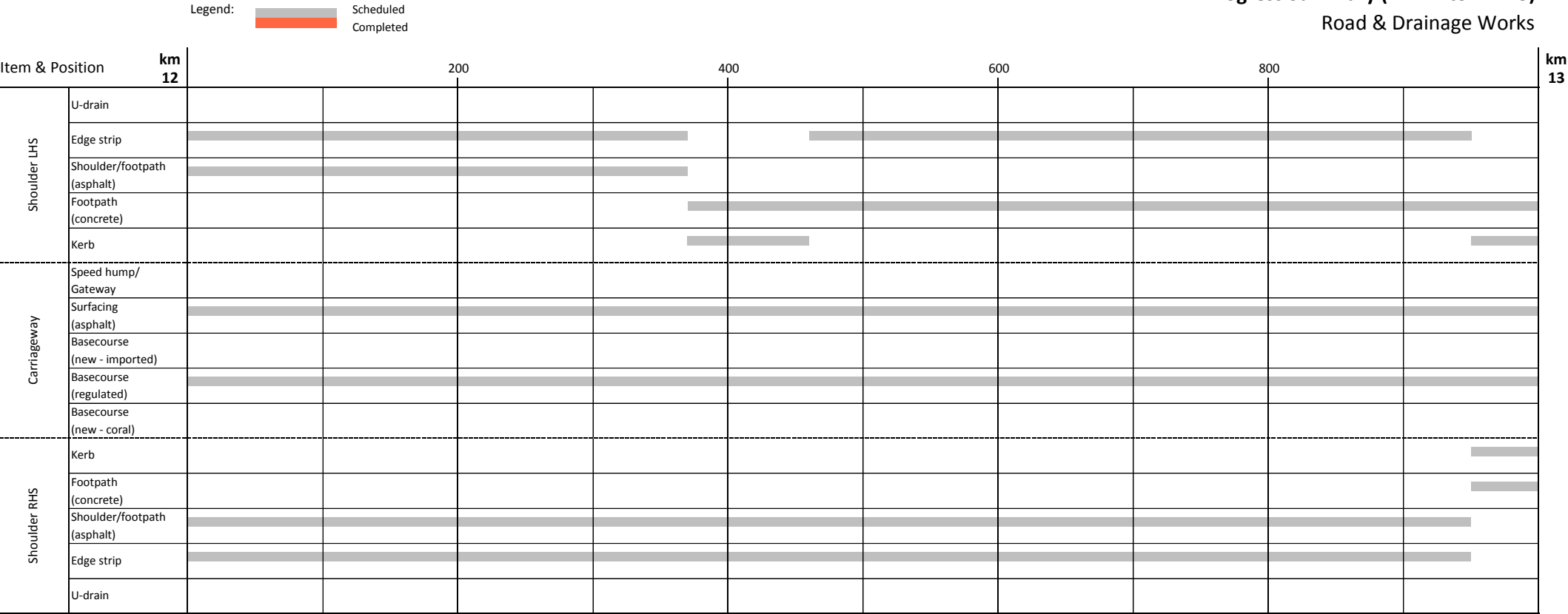
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 12 to km 13)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	N/A

Photographs:



1 Location: Ch 12+550 Direction: Looking Up chainage  
Description: Coastal protection/enabling works



2 Location: Ch 12+600 Direction: Looking Up chainage  
Description: Coastal protection/enabling works



3 Location: Ch 12+650 Direction: Looking Up chainage  
Description: Coastal protection/enabling works

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

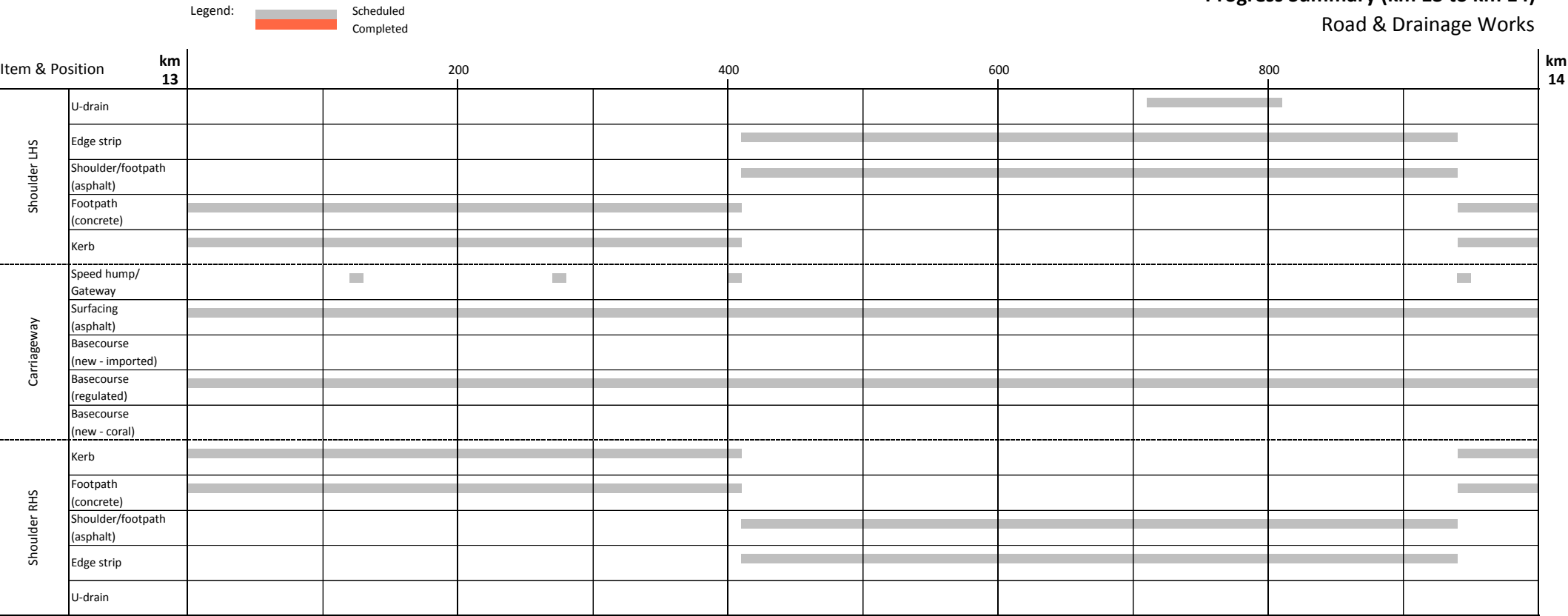
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 13 to km 14)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

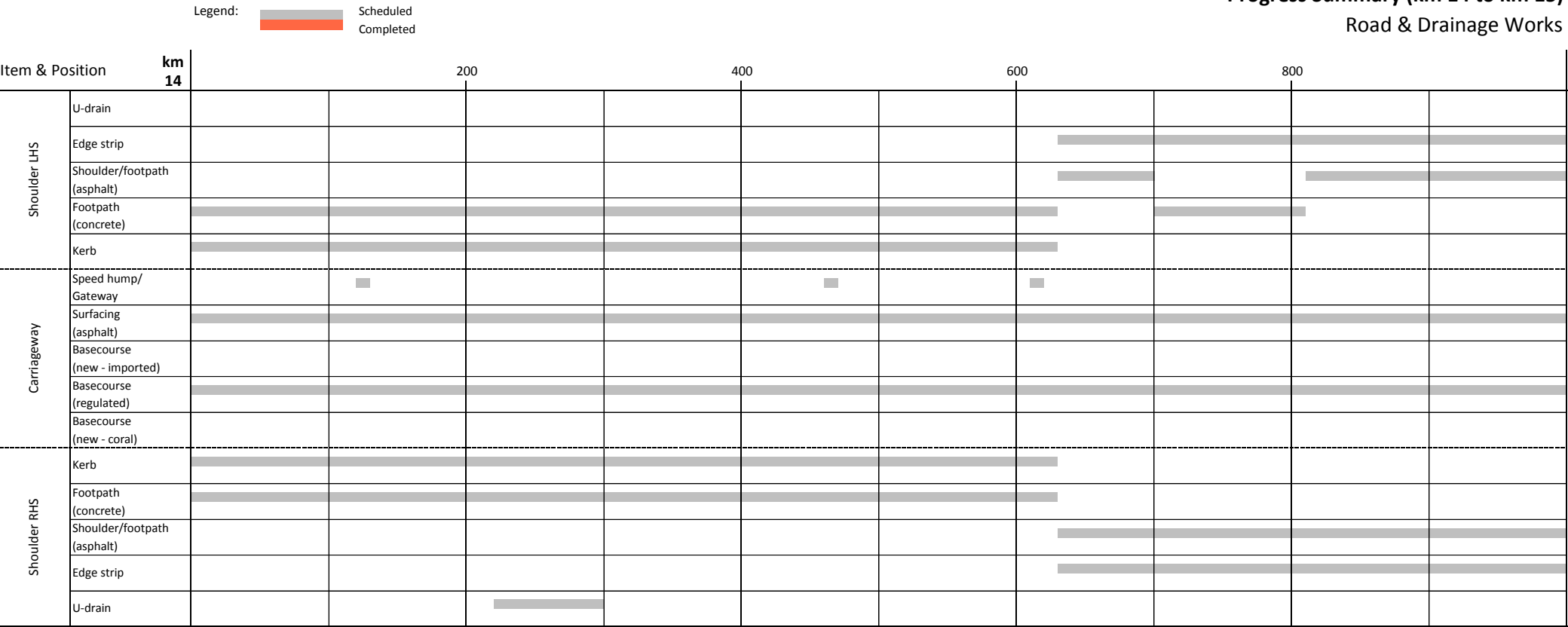
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 14 to km 15)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

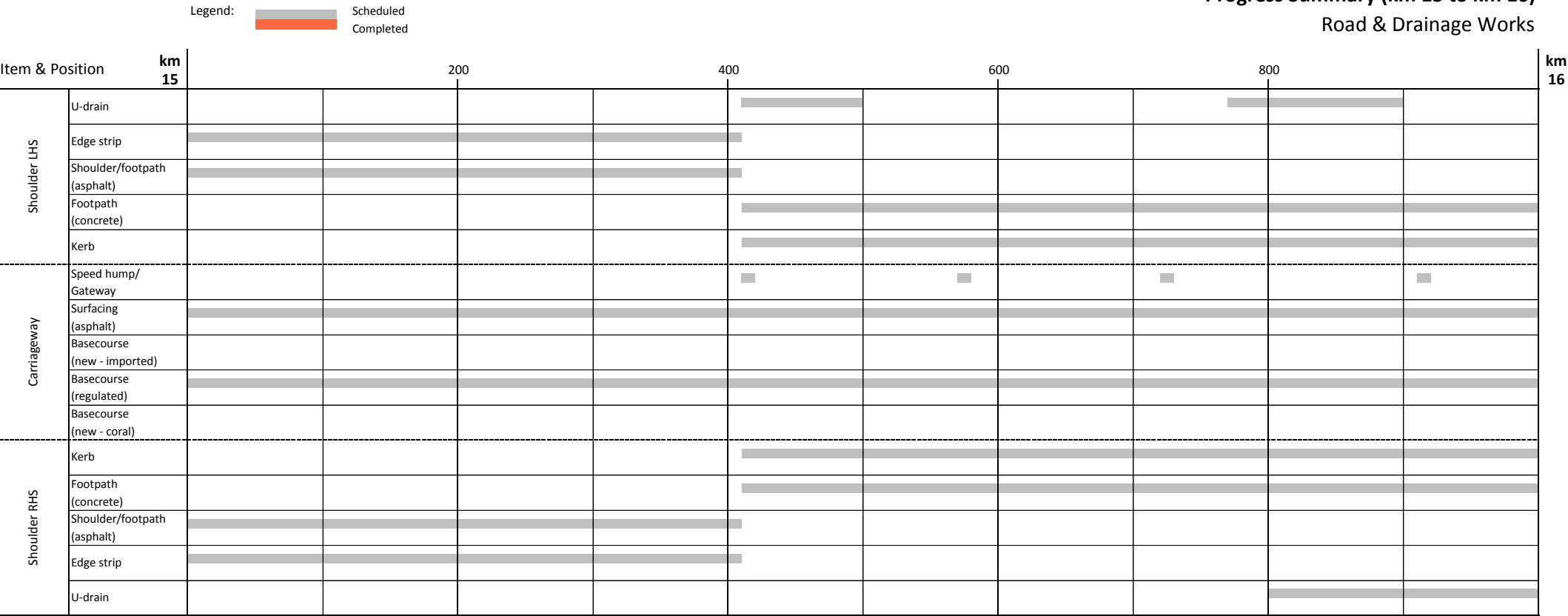
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 15 to km 16)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

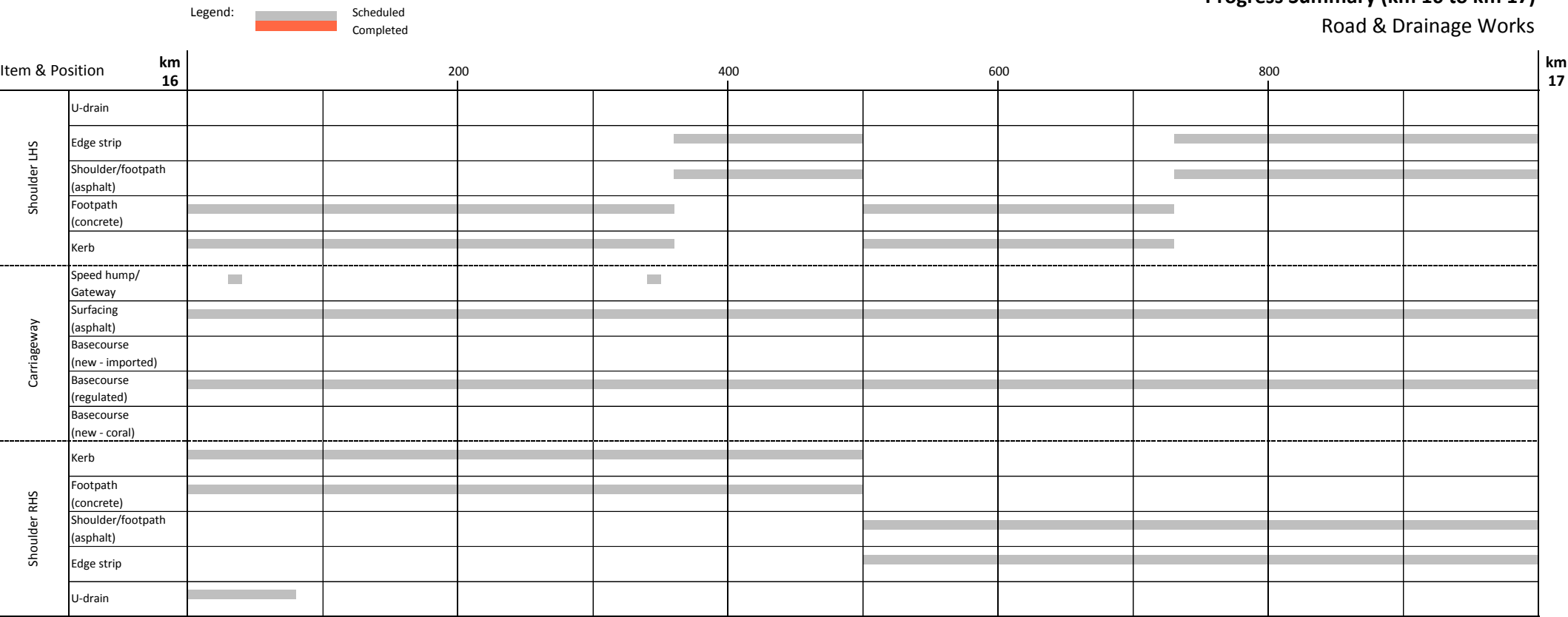
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 16 to km 17)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

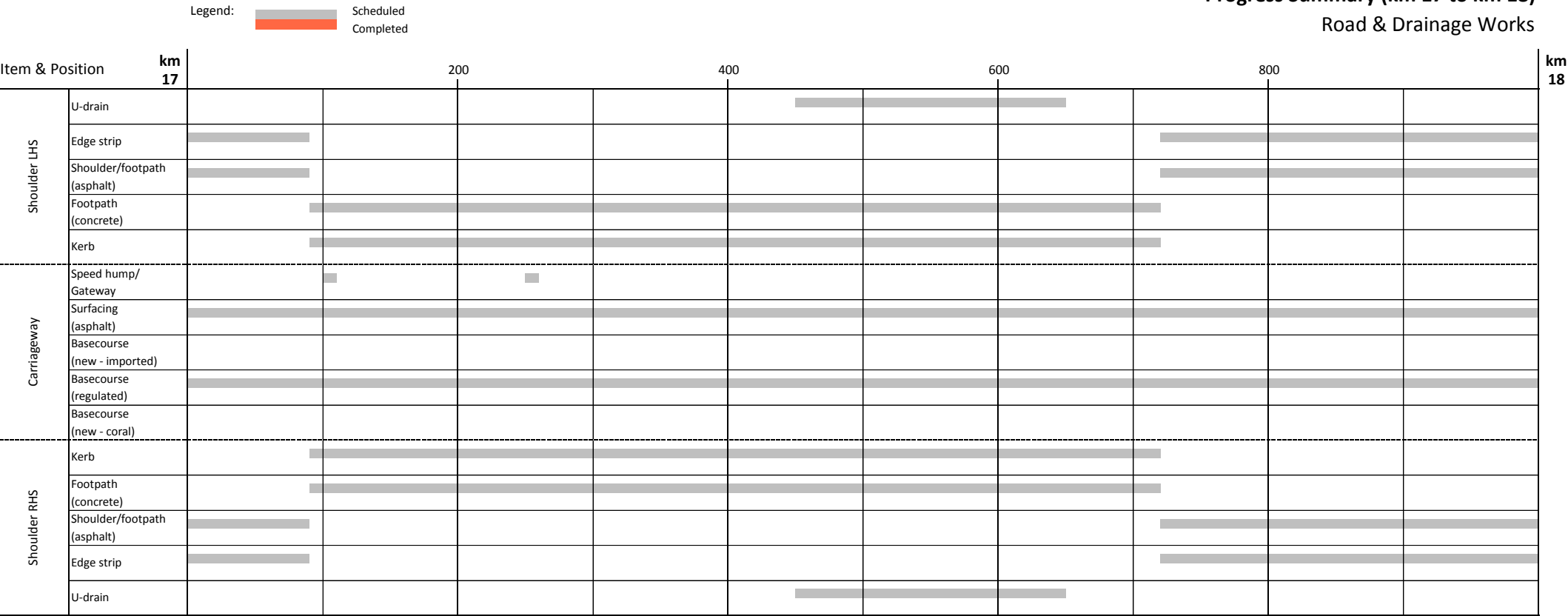
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 17 to km 18)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	0%

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

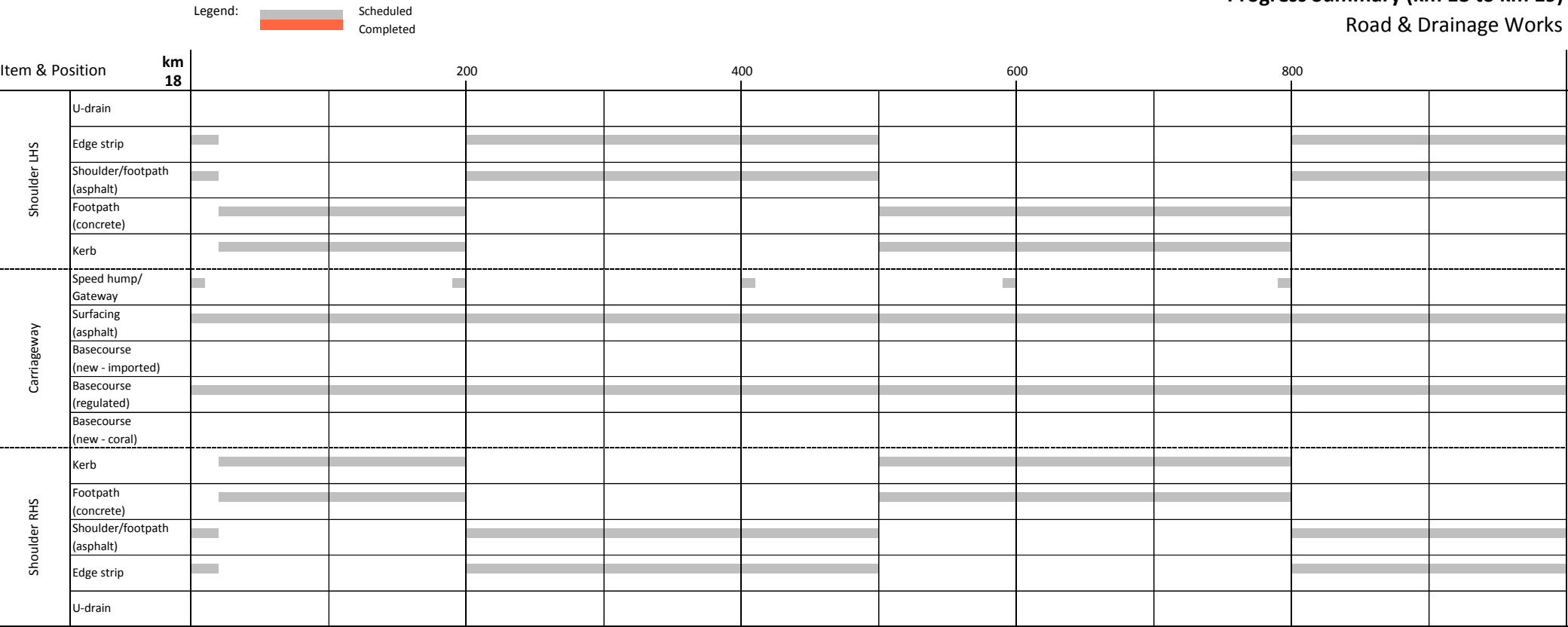
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 18 to km 19)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

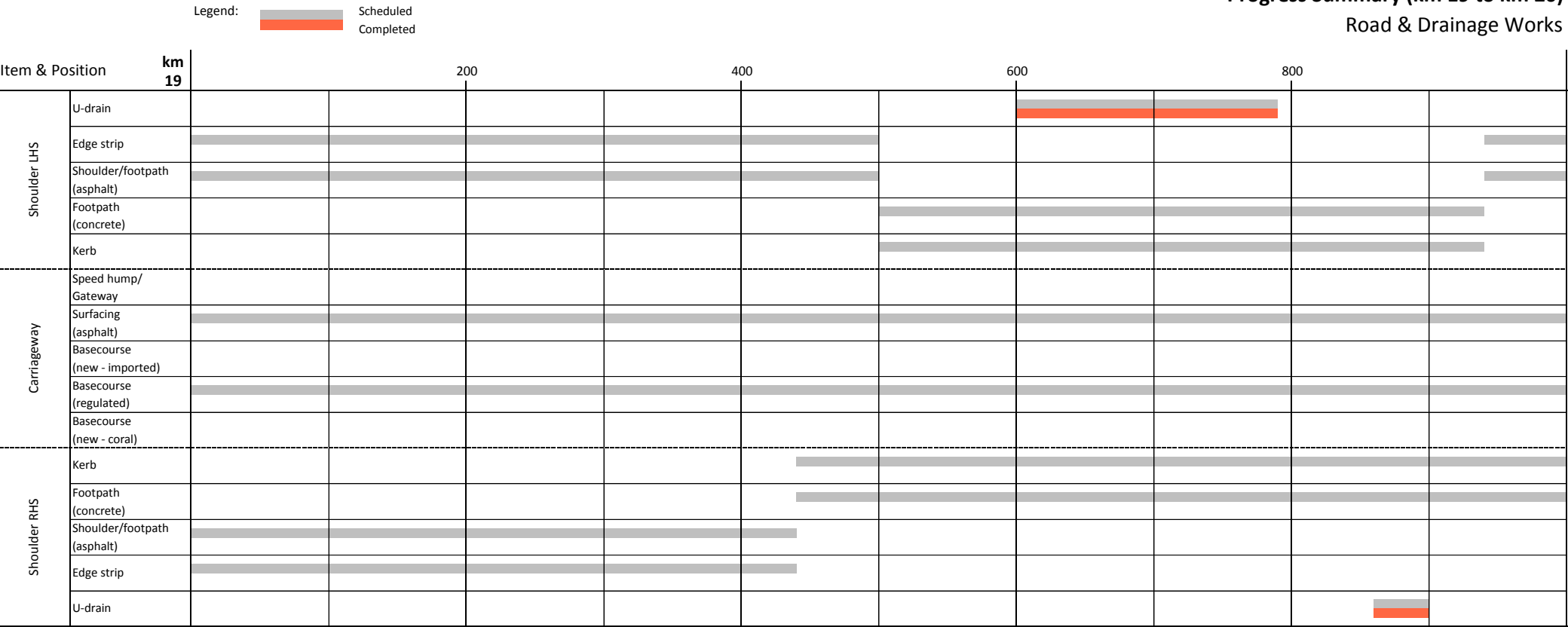
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 19 to km 20)

Road & Drainage Works



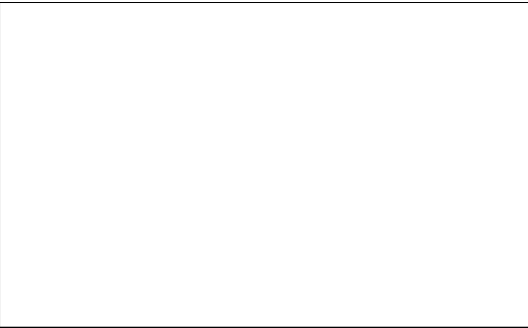
Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	0%
Footpath (concrete)	0%
U-drain	100%

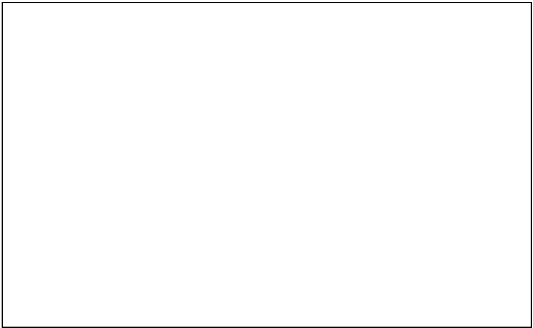
Photographs:



1 Location: Ch 19+600 Direction: Looking Up chainage  
Description: U-drain installed



2 Location: Direction:  
Description:



3 Location: Direction:  
Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 20 to km 21)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	100%
Kerb	20%
Footpath (concrete)	1%
U-drain	100%

Photographs:



1 Location: Ch 20+250 Direction: Looking Up chainage  
Description: Extruded concrete flush edge strip



2 Location: Ch 20+550 Direction: Looking Up chainage  
Description: U-drain installation



3 Location: Ch 20+700 Direction: Looking Down chainage  
Description: U-drain installation

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 21 to km 22)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	30%
Basecourse (coral)	N/A
Edge strip	N/A
Kerb	100%
Footpath (concrete)	0%
U-drain	N/A

Photographs:



1 Location: Ch 21+350 Direction: Looking Down Chainage  
Description: Installing raised kerbs



2 Location: Ch 21+450 Direction: Looking Down Chainage  
Description: Forming access through raised kerb



3 Location: Ch 22+000 Direction: Looking Up Chainage  
Description: Raised kerbs

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

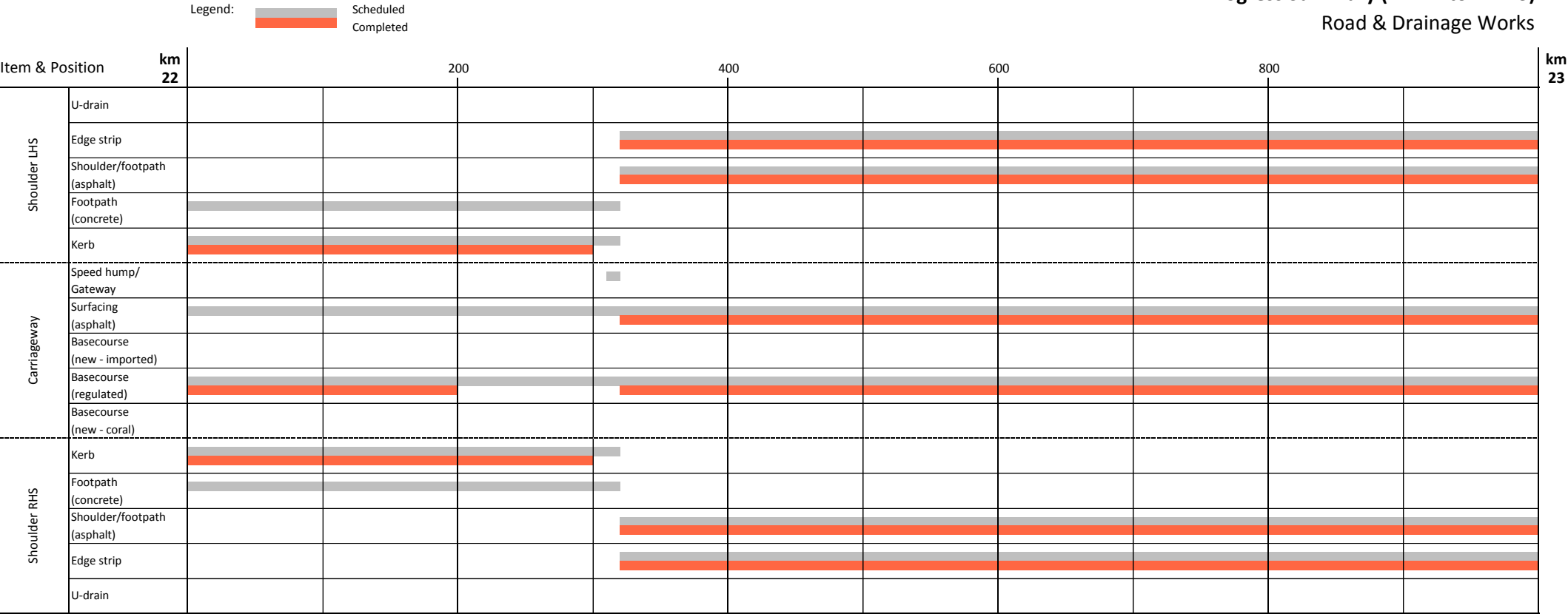
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 22 to km 23)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	68%
Shoulder (asphalt)	100%
Basecourse (imported)	N/A
Basecourse (regulated)	88%
Basecourse (coral)	N/A
Edge strip	100%
Kerb	94%
Footpath (concrete)	0%
U-drain	N/A

Photographs:



1 Location: Ch 22+340 Direction: Looking Up Chainage  
Description:



2 Location: Ch 22+450 Direction: Looking Up Chainage  
Description: Prime to basecourse



3 Location: Ch 22+550 Direction: Looking Up Chainage  
Description: Completed asphalt surfacing



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

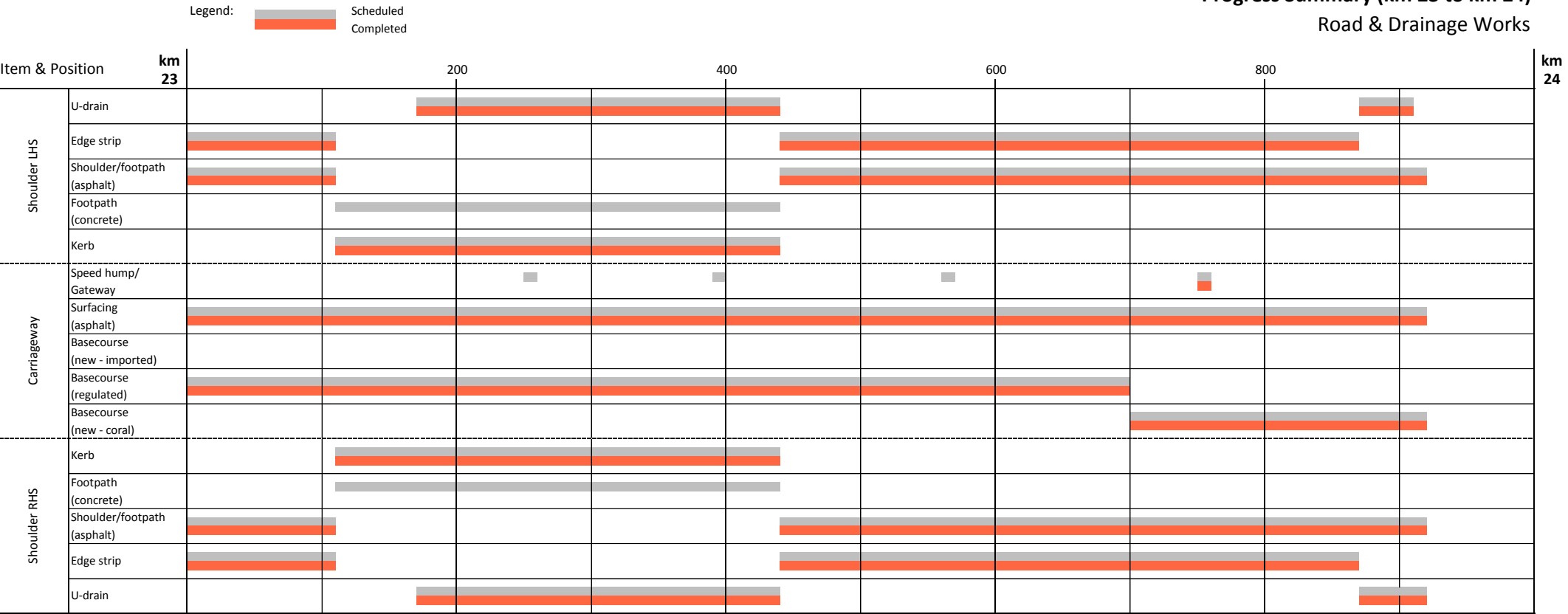
Schematic Diagram showing progress of Key Activities

December 2014

Main Betio-Temaiku Road

Progress Summary (km 23 to km 24)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	25%
Carriageway (asphalt)	100%
Shoulder (asphalt)	100%
Basecourse (imported)	N/A
Basecourse (regulated)	100%
Basecourse (coral)	100%
Edge strip	100%
Kerb	100%
Footpath (concrete)	0%
U-drain	100%

Photographs:



1 Location: Ch 23+500 Direction: Looking Up chainage  
Description: Completed asphalt surfacing



2 Location: Ch 23+920 Direction: Looking Up chainage  
Description: Installing speed hump



3 Location: Ch 23+700 Direction: Looking Up chainage  
Description: Installing speed hump



## H.2 – Schematic Progress Diagrams

### Airport, Temaikū & Buota Roads

# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

December 2014

**Airport, Temaiku & Buota Roads**

**Progress Summary**

% Complete on km by km basis

Item	Airport Road				Temaiku Road							Buota Road				All Roads		
	km 0	1	2	Over Full Road Length	km 0	1	2	3	4	5	6	Over Full Road Length	km 0	1	2	Over Full Road Length		
Speed hump/ Gateway		N/A	0%	<b>0%</b>		N/A	0%	0%	0%	0%	N/A	<b>0%</b>		N/A	N/A			<b>0%</b>
Carriageway (asphalt)		94%	92%	<b>93%</b>		0%	0%	0%	0%	0%	10%	<b>2%</b>		N/A	N/A			<b>25%</b>
Shoulder/footpath (asphalt)		0%	93%	<b>47%</b>		0%	0%	0%	0%	0%	0%	<b>0%</b>		N/A	N/A			<b>10%</b>
Basecourse (new - imported)		N/A	N/A			N/A	N/A	N/A	N/A	100%	100%	<b>100%</b>		N/A	N/A			<b>100%</b>
Basecourse (regulated)		95%	93%	<b>94%</b>		0%	0%	N/A	N/A	N/A	N/A	<b>0%</b>		N/A	N/A			<b>49%</b>
Basecourse (new coral)		N/A	N/A			N/A	0%	0%	0%	0%	N/A	<b>0%</b>		0%	0%	<b>0%</b>		<b>0%</b>
Edge strip		95%	93%	<b>94%</b>		0%	0%	0%	35%	93%	100%	<b>38%</b>		N/A	N/A			<b>52%</b>
Kerb		N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A			
Footpath (concrete)		N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A			
U-drain		N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A			

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

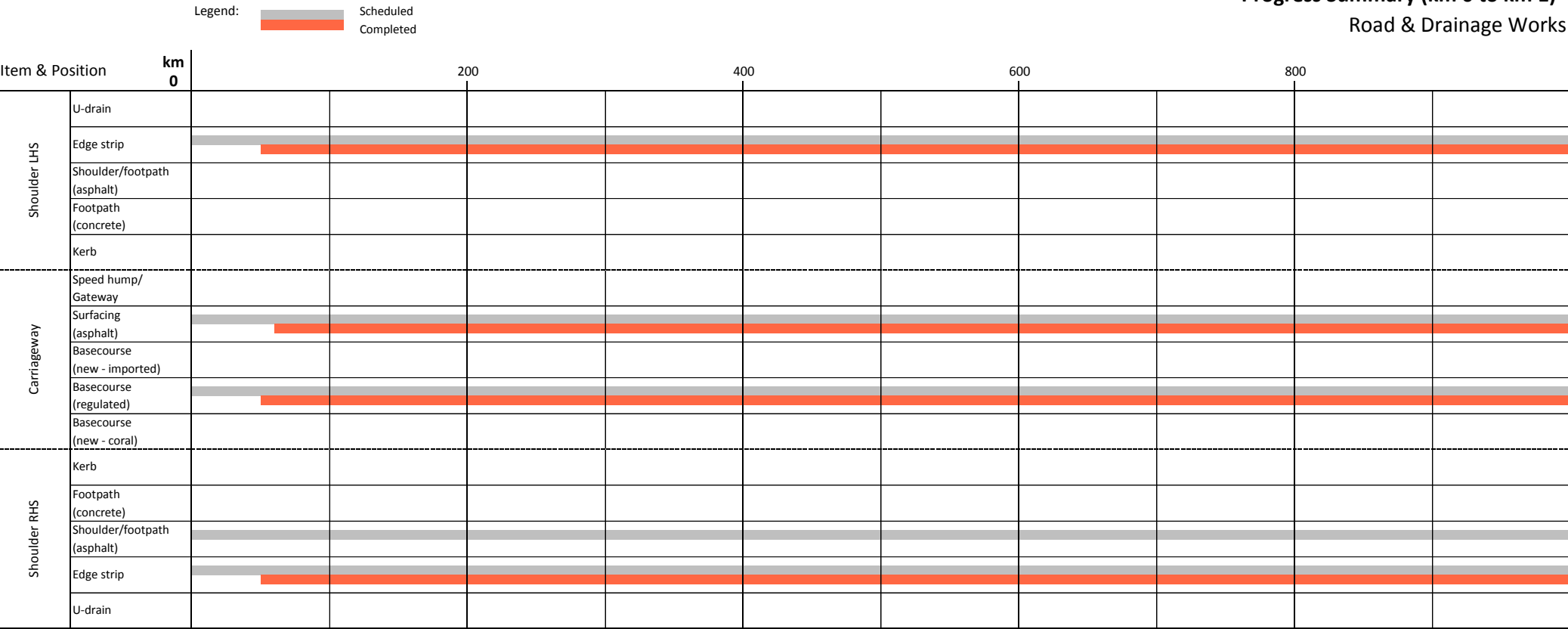
Schematic Diagram showing progress of Key Activities

December 2014

Airport Road

Progress Summary (km 0 to km 1)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	94%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	95%
Basecourse (coral)	N/A
Edge strip	95%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

- 1 Location: Ch 0+800 Direction: Looking Down chainage

Description: Laying asphalt surfacing
- 2 Location: Ch 0+880 Direction: Looking Down chainage

Description: Laying asphalt surfacing
- 3 Location: Ch 1+350 Direction: Looking Down chainage

Description: Finished asphalt surfacing

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

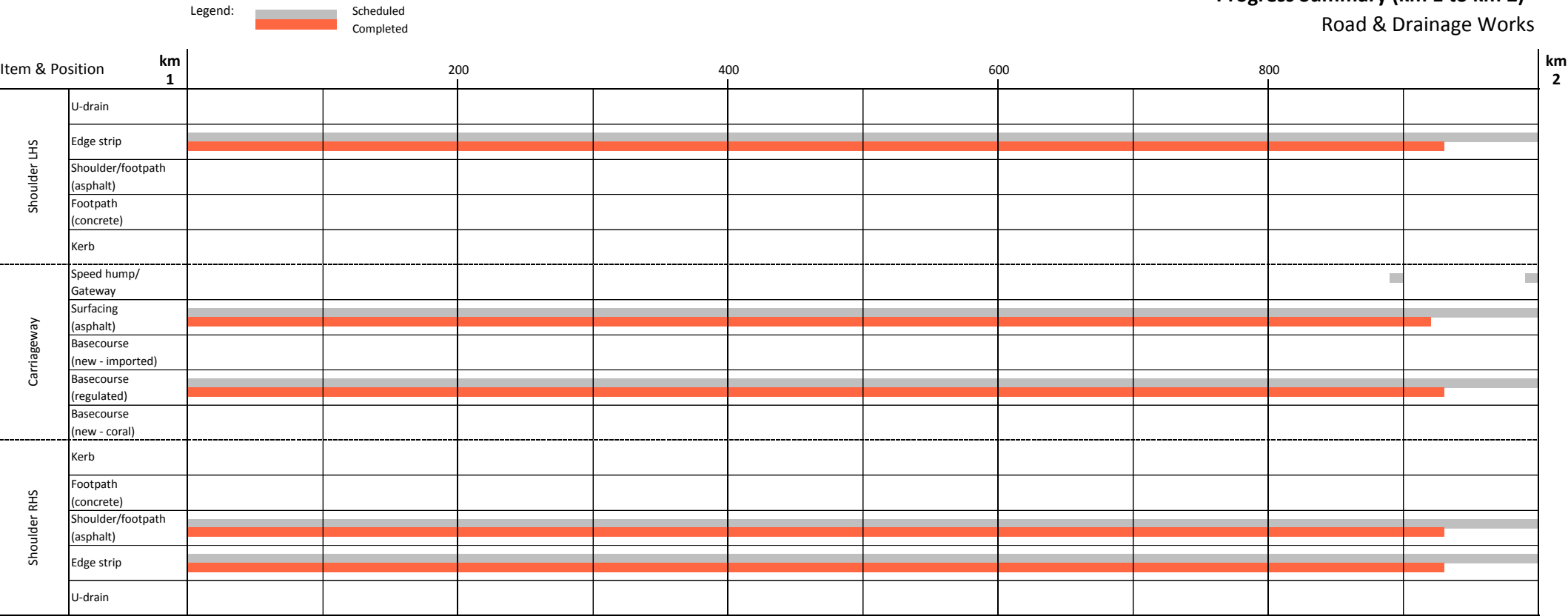
Schematic Diagram showing progress of Key Activities

December 2014

Airport Road

Progress Summary (km 1 to km 2)

Road & Drainage Works



Progress:

Photographs:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	92%
Shoulder (asphalt)	93%
Basecourse (imported)	N/A
Basecourse (regulated)	93%
Basecourse (coral)	N/A
Edge strip	93%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

1 Location: Ch 1+500 Direction: Looking Down Chainage  
Description: Regulating coral basecourse

2 Location: Ch 1+850 Direction: Looking Down Chainage  
Description: Preparing foundations for extruded edge strips

3 Location: Direction:  
Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 0 to km 1)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 0		200		400		600		800		km 1
Shoulder LHS	U-drain											
	Edge strip											
	Shoulder/footpath (asphalt)											
	Footpath (concrete)											
	Kerb											
Carriageway	Speed hump/ Gateway											
	Surfacing (asphalt)											
	Basecourse (new - imported)											
	Basecourse (regulated)											
	Basecourse (new - coral)											
Shoulder RHS	Kerb											
	Footpath (concrete)											
	Shoulder/footpath (asphalt)											
	Edge strip											
	U-drain											

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	N/A
Edge strip	0%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

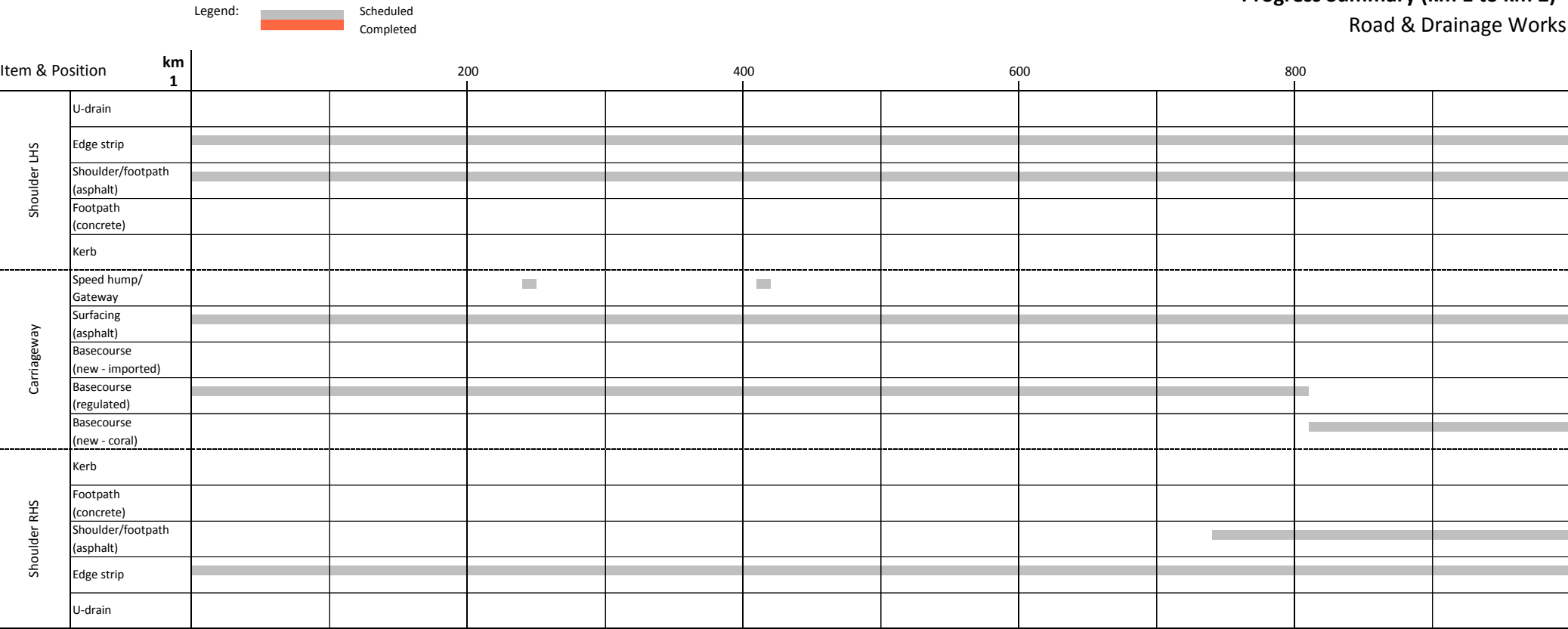
Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 1 to km 2)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	0%
Basecourse (coral)	0%
Edge strip	0%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

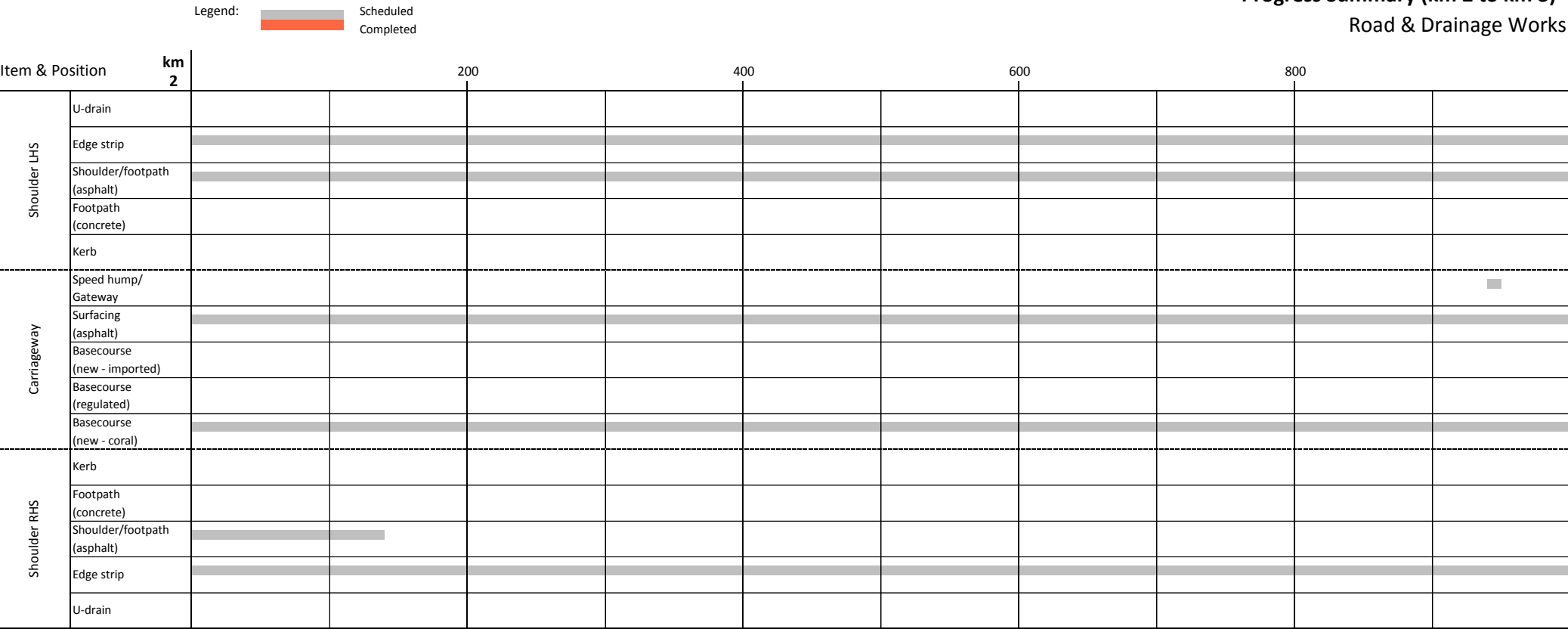
Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 2 to km 3)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	0%
Edge strip	0%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Ch 23600 Direction: Looking Up Chainage  
Description: Kerbing works

2 Location: Ch 23600 Direction: Looking Up Chainage  
Description: Kerbing works

3 Location: Ch 23600 Direction: Looking Up Chainage  
Description: Kerbing works

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

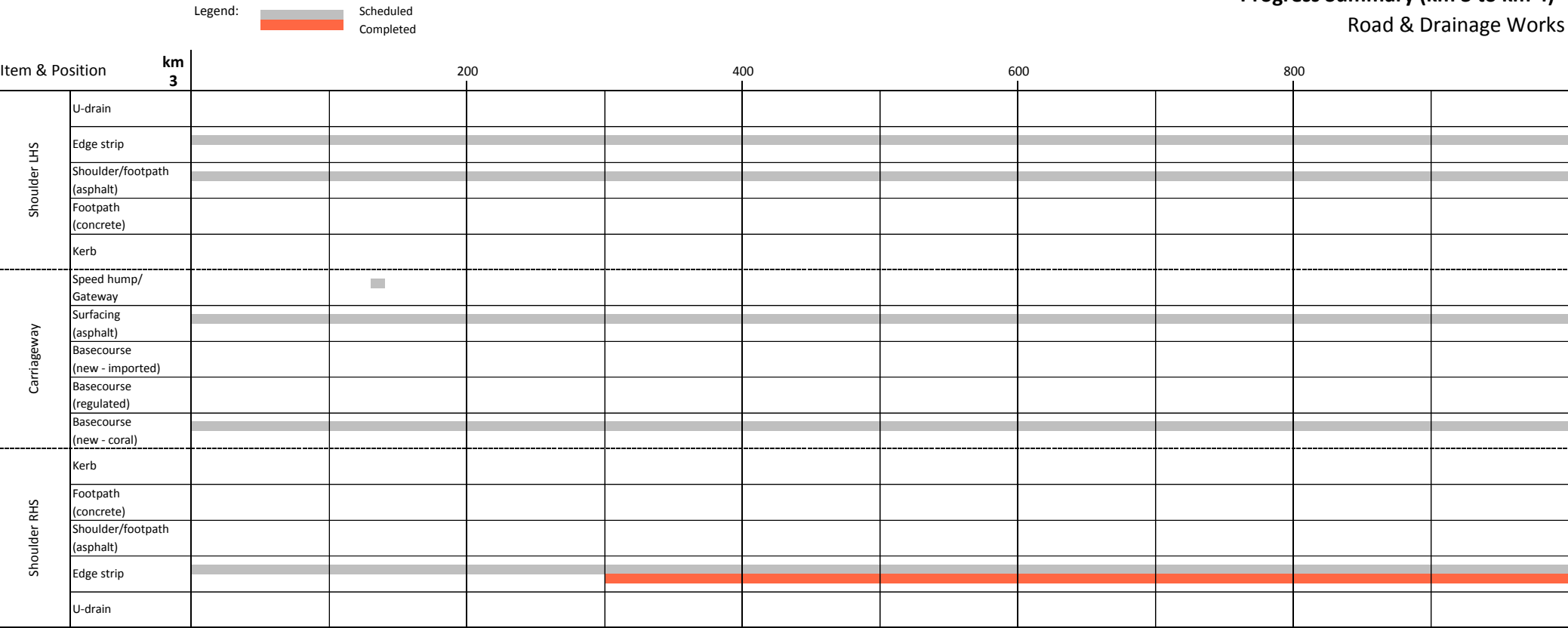
Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 3 to km 4)

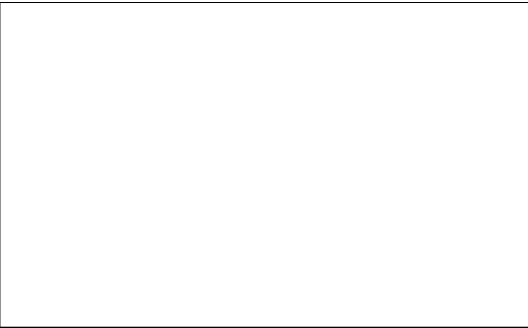
Road & Drainage Works



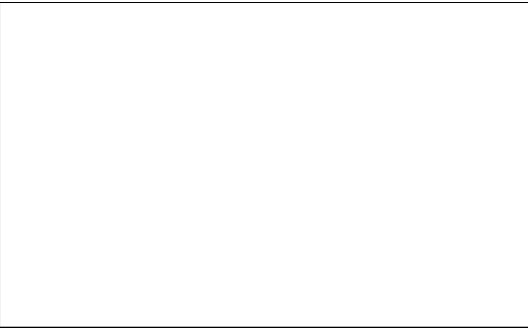
Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	0%
Edge strip	35%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:



1 Location: Direction: Description:



2 Location: Direction: Description:



3 Location: Ch 3+900 Direction: Looking Up Chainage Description: Preparation for extruded concrete edge strips



KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

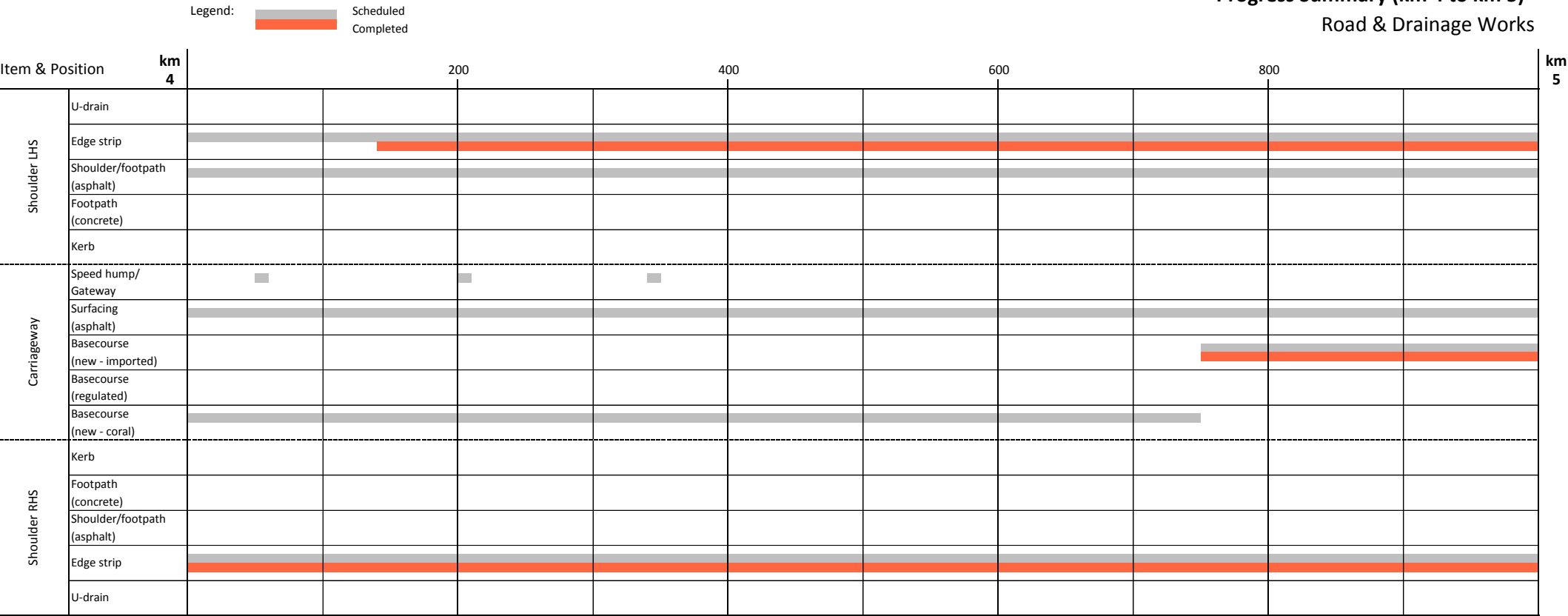
Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 4 to km 5)

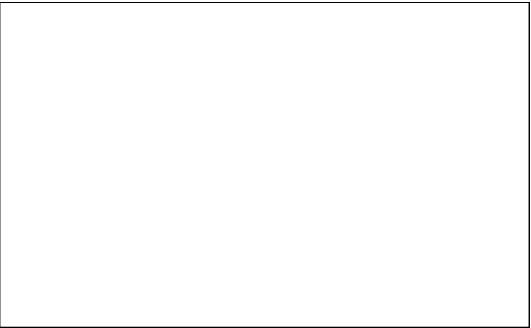
Road & Drainage Works



Progress:

Item	% Complete
Speed humps	0%
Carriageway (asphalt)	0%
Shoulder (asphalt)	0%
Basecourse (imported)	100%
Basecourse (regulated)	N/A
Basecourse (coral)	0%
Edge strip	93%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:



1 Location: Direction: Description:



2 Location: Ch 4+150 Direction: Looking Up Chainage Description: Concrete edge strips formed



3 Location: Ch 4+400 Direction: Looking Up Chainage Description: Concrete edge strips formed

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

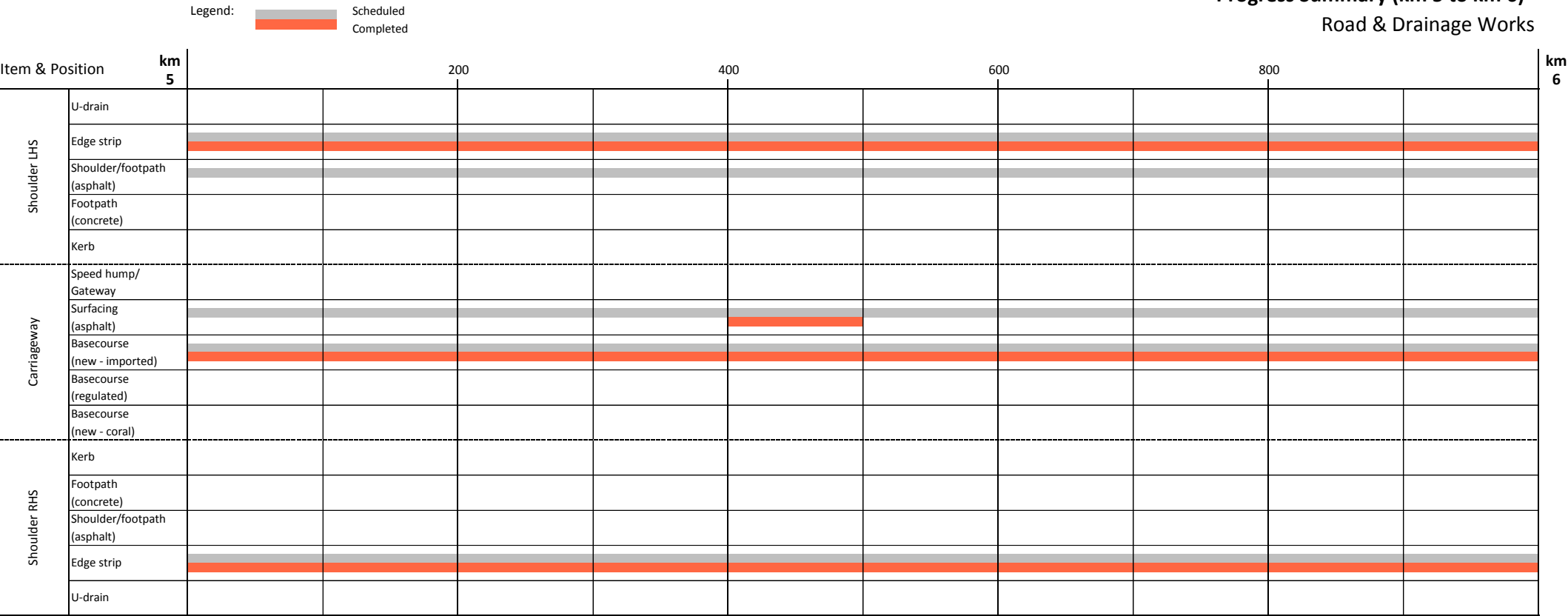
Schematic Diagram showing progress of Key Activities

December 2014

Temaiku Road

Progress Summary (km 5 to km 6)

Road & Drainage Works



Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	10%
Shoulder (asphalt)	0%
Basecourse (imported)	100%
Basecourse (regulated)	N/A
Basecourse (coral)	N/A
Edge strip	100%
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:



1 Location: Ch 5+050 Direction: Looking Down Chainage  
Description: Basecourse (imported) placed



2 Location: 5+500 Direction: Looking Down Chainage  
Description: Asphalt surfacing (trial sections)



3 Location: Ch 5+750 Direction: Looking Down Chainage  
Description: Sub-base preparation (edge strips placed)

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Buota Road

Progress Summary (km 0 to km 1)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 0											km 1
Shoulder LHS	U-drain												
	Edge strip												
	Shoulder/footpath (asphalt)												
	Footpath (concrete)												
	Kerb												
Carriageway	Speed hump/ Gateway												
	Surfacing (asphalt)												
	Basecourse (new - imported)												
	Basecourse (regulated)												
	Basecourse (new - coral)												
Shoulder RHS	Kerb												
	Footpath (concrete)												
	Shoulder/footpath (asphalt)												
	Edge strip												
	U-drain												

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	N/A
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	0%
Edge strip	N/A
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

Schematic Diagram showing progress of Key Activities

December 2014

Buota Road

Progress Summary (km 1 to km 2)

Road & Drainage Works

Legend: 

Scheduled

Completed

Item & Position		km 1										km 2
			200	400	600	800						
Shoulder LHS	U-drain											
	Edge strip											
	Shoulder/footpath (asphalt)											
	Footpath (concrete)											
	Kerb											
Carriageway	Speed hump/ Gateway											
	Surfacing (asphalt)											
	Basecourse (new - imported)											
	Basecourse (regulated)											
	Basecourse (new - coral)											
Shoulder RHS	Kerb											
	Footpath (concrete)											
	Shoulder/footpath (asphalt)											
	Edge strip											
	U-drain											

Progress:

Item	% Complete
Speed humps	N/A
Carriageway (asphalt)	N/A
Shoulder (asphalt)	N/A
Basecourse (imported)	N/A
Basecourse (regulated)	N/A
Basecourse (coral)	0%
Edge strip	N/A
Kerb	N/A
Footpath (concrete)	N/A
U-drain	N/A

Photographs:

1 Location: Direction: Description:

2 Location: Direction: Description:

3 Location: Direction: Description:

## H.3 – Schematic Progress Diagram

### Feeder Roads

# KIRIBATI ROAD REHABILITATION PROJECT - Contract No. KIR-12/01

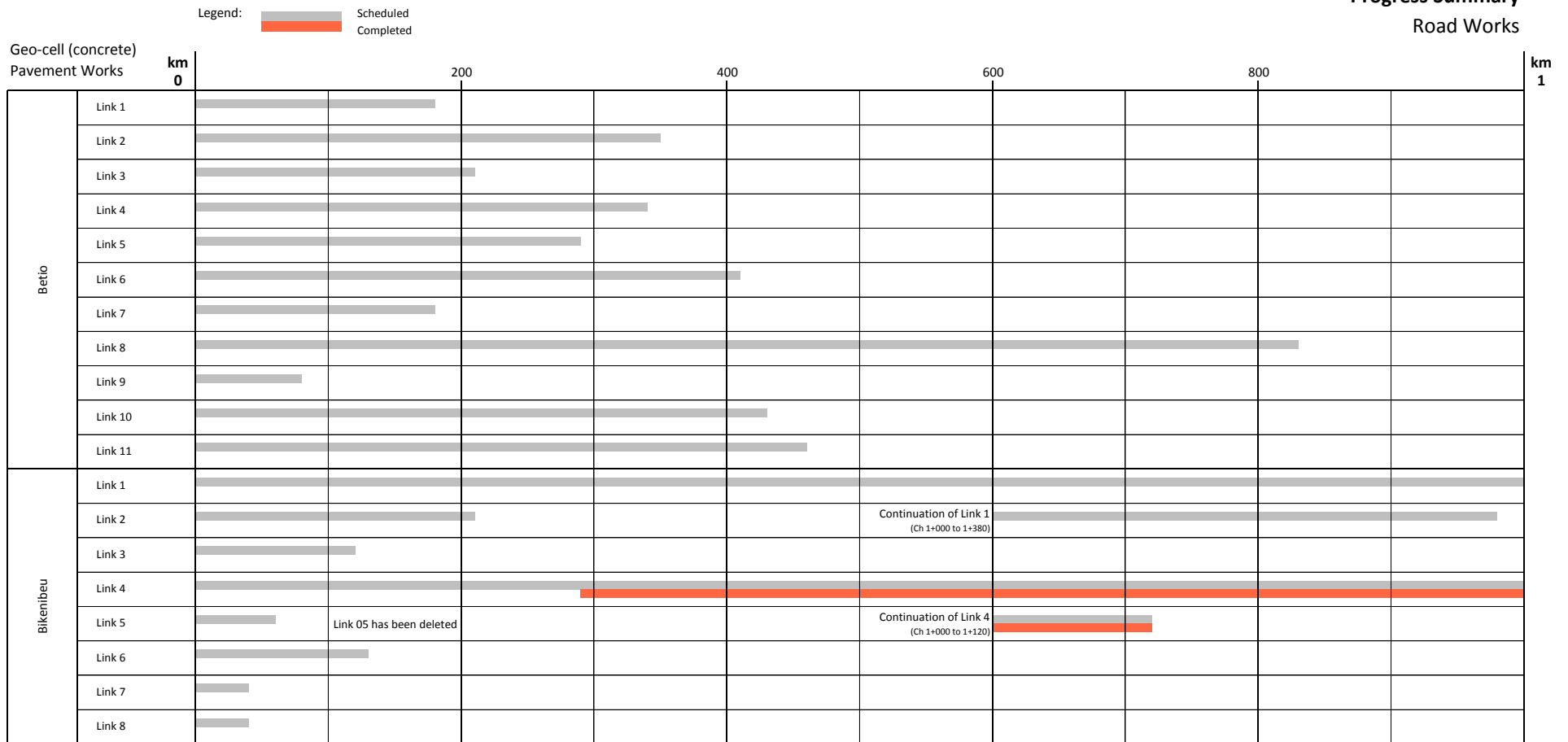
## Schematic Diagram showing progress of Key Activities

December 2014

Feeder Roads

Progress Summary

Road Works



### Progress:

Item	% Complete
Betio roads	0%
Bikenibeu roads	27%
All roads	12%

### Photographs:



1 Location: Link 04 Direction: Looking Down Chainage  
Description: Placing geo-cell 'mat/formwork'



2 Location: Link 04 Direction: Looking Down Chainage  
Description: Floating off concrete pavement



3 Location: Link 04 Direction: Looking Down Chainage  
Description: Finished concrete surface

**Appendix I:**  
**Fumigation Documentation**  
**and Certificates**

Ref: NTC279

28/10/2014

John McFarlane  
Engineer  
Ministry of Public Works & Utilities  
Betio  
South Tarawa  
Kiribati

Attention: John

**Re: Kiribati Road Rehabilitation Project**

**Contract No. KIR – 12/01**

**Subject: Fumigation Methodology for Armour Rock**

Dear John.

Following to our letter NTC 269 and in response to your letter 0185 27<sup>th</sup> October 2014 we provide the following additional details regarding the Fumigation Methodology of the Armour Rock.

In the suppliers methodology it is stated that the fumigation process is carried out over a 72 hour period and de gassing takes a further 24 hours before the covers can be removed and anyone is allowed access to the barge.

The Fumigation Certificate provided by WG Genera Pacific Ltd shows that the measured concentration of Methyl Bromide after de gassing is 5 parts per million (5ppm)

In accordance with the USA Agency for Toxic Substances & Disease Registry, when bromomethane enters the environment the following occurs:

- It moves quickly into the air when released to the environment when present in soil and water.
- It breaks down slowly in air over several years.
- It breaks down quickly in soil over a few days.
- Small amounts can move from the soil into the groundwater.
- It breaks down in ground water over a period of several months.
- It does not build up in plants and animals

The US EPA requires that spills or accidental releases into to environment of 1,000 lbs or more to be reported.

EPA also states that some Methyl bromide is formed naturally by algae and kelp in the ocean.

The US FDA sets a limit of 125 – 400 parts per million (125 – 140 ppm) for food treated with bromomethane.

OSHA limits the level of bromomethane in the work place air to 20 ppm for an 8 hour workday over a 40 hour week.

Copies of reference documents are attached and we trust that this information will provide sufficient information to eliminate the concerns of the Employer



Yours faithfully

**McConnell Dowell Constructors (Aust) Pty Ltd**

A handwritten signature in dark ink, appearing to read 'M Liersch', written in a cursive style.

Mark Liersch  
**Project Manager**



## Methodology Statement for Fumigation of goods

Due to the requirements of the Kiribati Governments Agriculture Department we have chosen to treat all goods being transported on our barges by introducing a complete enclosed covering system which is capable of being sealed off to allow fumigation to take place following loading of the barge.

We have employed the professional services of WG Genera Pacific Ltd to undertake all of the fumigation process and certification for us.

Prior to the departure of the first load for this contract we arranged to have personnel from the Ministry Of Agriculture Kiribati flown down to Fiji to observe the system of treatment that we had adopted.

Following the loading of the barges "WG" then come on board and completely cover the barge with their specialized tarpaulin system to ensure that all materials are covered for treatment and that no leakage of the treatment chemicals into the atmosphere.

In the case of any containers that we may load and that cannot be positioned with doors open under the tarpaulin system then it is intended that these containers will be fumigated separately prior to loading. These containers will also have separate clearance certificates produced for each item.

The covering system has in it apertures which allows our Fumigation company to pump in the required amount of treatment chemical which in this case will be Bromomethane or more commonly known as Methyl Bromide (MeBr), this is the most common form of Pesticide used for the fumigation process required.

Due to the highly dangerous chemicals in use we will ensure that at all times the barge is being fumigated we will have 24 hr security monitoring the barge to ensure no persons are able to enter this site. It is intended to moor barge in the Harbour which will also reduce access to it.

Treatment of this take's approx 72 to 74 hours following which the fumigation company then return and "degas" the barge and issue us with the required certification of the treatment process. Due to the number of varied products "Rocks, Aggregates, sand etc" we are now carrying for this project we had been advised by "WG" to go with the highest recommended dosage rate "150g/m<sup>3</sup>" of treatment to ensure that all products are treated to the highest standard.

Following the "degas" procedure and removal of the treatment tarpaulins we immediately re cover the products with our own transportation tarpaulins.

Copies of the fumigation certificates will be e mailed to Kiribati along with all other required docs so that the arrival process can be implemented and all original copies will travel on the vessel.



# WG GENERA PACIFIC LTD

SUVA - 82 HARRIS ROAD  
P.O. BOX 79, SUVA  
PH: (679) 3312 633 FAX: (679) 3236 336

Web: [www.wgfiji.com.fj](http://www.wgfiji.com.fj)  
Email: [fumigation@wgfiji.com.fj](mailto:fumigation@wgfiji.com.fj)

WAILEKUTU - LAMI  
P.O. BOX 79, SUVA  
PH: (679) 3681 190 FAX: (679) 3681 191

## FUMIGATION CERTIFICATE

### Article Details

Certificate No: 30367

**Description of goods:** STACKS OF AGGREGATES AP40 AND 19MM BUILDERS MIX

**Container markings:** STACK FUMIGATION ON BARGE

**Distinguish mark:** N/A

**Country of origin:** FIJI ISLANDS

**Port of loading:** SUVA

**Country of destination:** KIRIBATI

**Vessel:** MANDIRI BARGE

**Name and address of consignor:**

**Name and address of consignee:**

PACIFIC MARINE BUILDING SOLUTION

MACONNELL DOWELL

9-12 NUKUWATU STREET

TARAWA

LAMI

FIJI ISLANDS

KIRIBATI

### *For Sawn Timber as per AQIS requirements*

*-Consignment of timber was "Stickered" every 200mm prior to fumigation.*

*-This consignment was fumigated within 21 days of containerization.*

*-Plastic wrapping was opened prior to fumigation to allow complete penetration of gas.*

### Treatment Details

**Name of fumigant:** METHYL BROMIDE **Total Volume:** 3923.12 m3 **Place of fumigation:** OUT AT SEA

**Date of fumigation:** 29/09/2014 **Duration of fumigation:** 72 Hours **Dosage rate:** 150g/m3@21°C

**Time of fumigation:** 1400HRS

**Actual gas reading after release:** 5ppm

**Fumigator officer:** CHRIS RAFOI

**Bio security Officer:** JIMILAI TAKAPE

Signature: .....

Signature: .....

**A Fijian company understands a Fijian pest problem!!!**





Agency for Toxic Substances &amp; Disease Registry

## ToxFAQs™ for Bromomethane

*(Bromometano)*

September 1995

CAS#: 74-83-9

**PDF Version, 91 KB**

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**This fact sheet answers the most frequently asked health questions about bromomethane. For more information, you may call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.**

---

## Summary

Exposure to bromomethane occurs mostly from breathing contaminated air in the workplace or at waste sites. It is usually not found in surface water, soil, or food. Exposure to high levels can affect your lungs and cause breathing difficulty. It can also damage your kidneys and nervous system, and can even cause death. This chemical has been found in at least 74 of 1,416 National Priorities List sites identified by the Environmental Protection Agency.

---

## What is bromomethane?

Bromomethane is a manufactured chemical. It also occurs naturally in small amounts in the ocean where it is formed, probably by algae and kelp. It is a colorless, nonflammable gas with no distinct smell.

Other names for bromomethane are methyl bromide, mono-bromomethane, and methyl fume. Trade names include Embafume and Terabol.

Bromomethane is used to kill a variety of pests including rats, insects, and fungi. It is also used to make other chemicals or as a solvent to get oil out of nuts, seeds, and wool.

---

## What happens to bromomethane when it enters the environment?

- It moves very quickly into the air when released to the environment or when present in soil or water.
  - It breaks down slowly in air over several years.
  - It breaks down quickly in soil over a few days.
  - Small amounts can move from the soil into the groundwater.
  - It breaks down in groundwater over a period of several months.
  - It does not build up in plants or animals.
-

## How might I be exposed to bromomethane?

- Breathing very, very low background levels in the environment.
- Breathing contaminated air with high levels near waste sites.
- Breathing air where it has been used as a pesticide.
- Breathing workplace air where it is made or used.
- Usually not found in surface water, soil, or food.

---

## How can bromomethane affect my health?

If you breathe bromomethane you may develop a headache and begin to feel weak and nauseated several hours later. If you breathe large amounts, fluid may build up in your lungs and it may be hard to breathe. It could cause muscle tremors, seizures, kidney damage, nerve damage, and even death.

Exposure levels leading to death vary from 1,600 to 60,000 parts of bromomethane in 1 million parts of air (1,600-60,000 ppm), depending on the length of the exposure. These levels are much, much higher than those to which you would normally be exposed to.

The respiratory, kidney, and neurologic effects are of the greatest concern to people. No cases of severe effects on the nervous system from long-term exposure to low levels have been noted in people, but studies in rabbits and monkeys have shown moderate to severe injury.

Swallowing bromomethane may cause stomach irritation. If bromomethane gets on your skin, it can cause itching, redness, and blisters. These effects are caused by levels that are higher than levels you might normally encounter

We do not know if it affects our ability to reproduce. Studies in animals suggest that bromomethane does not cause birth defects and does not interfere with reproduction, except at high exposure levels.

---

## How likely is bromomethane to cause cancer?

The Environmental Protection Agency (EPA) has determined that bromomethane is not classifiable as to its human carcinogenicity.

There are no studies available to indicate that bromomethane is carcinogenic to people. Animal studies do not provide conclusive evidence.

---

## Is there a medical test to show whether I've been exposed to bromomethane?

Several tests are available to tell if you have been exposed to bromomethane. It can be measured in your blood or in the air you breathe out. This test is not very useful because most bromomethane doesn't stay in your body long.

Another test measures the main breakdown product of bromomethane (bromide) in your blood or urine. Bromide is normally present in your blood, but the level would be higher if you had been exposed to bromomethane. This test is only useful if done within 1-2 days following exposure and cannot predict if any health effects will occur.

These tests are not routinely performed at doctors' offices, but your doctor can take blood or urine samples and send them to a testing laboratory.

---

## Has the federal government made recommendations to protect human health?

EPA requires that spills or accidental releases into the environment of 1,000 pounds or more of bromomethane be reported.

The Food and Drug Administration (FDA) set a limit of 125-400 parts of bromide per million parts of food (ppm) for food treated with bromomethane.

The Occupational Safety and Health Agency (OSHA) limits the average level of bromomethane in workplace air to 20 ppm for an 8-hour workday over a 40-hour week, and recommends that exposure be reduced as low as possible.

---

## Glossary

Carcinogenicity: Ability to cause cancer.

CAS: Chemical Abstracts Service.

Long-term: Lasting one year or longer.

---

## References

Agency for Toxic Substances and Disease Registry (ATSDR). 1995. Managing Hazardous Materials Incidents. Volume III – Medical Management Guidelines for Acute Chemical Exposures: Bromomethane. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Agency for Toxic Substances and Disease Registry (ATSDR). 1992. Toxicological Profile for bromomethane. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

---

## Where can I get more information?

If you have questions or concerns, please contact your community or state health or environmental quality department or:

### **For more information, contact:**

Agency for Toxic Substances and Disease Registry  
Division of Toxicology and Human Health Sciences  
1600 Clifton Road NE, Mailstop F-57  
Atlanta, GA 30333  
Phone: 1-800-CDC-INFO · 888-232-6348 (TTY)  
Email: [Contact CDC-INFO](mailto:Contact CDC-INFO)

ATSDR can also tell you the location of occupational and environmental health clinics. These clinics specialize in recognizing, evaluating, and treating illnesses resulting from exposure to hazardous substances.

### **Information line and technical assistance:**

Phone: 888-422-8737

### **To order toxicological profiles, contact:**

National Technical Information Service  
5285 Port Royal Road

Springfield, VA 22161

Phone: 800-553-6847 or 703-605-6000

**Disclaimer**

Some PDF files may be electronic conversions from paper copy or other electronic ASCII text files. This conversion may have resulted in character translation or format errors. Users are referred to the original paper copy of the toxicological profile for the official text, figures, and tables. Original paper copies can be obtained via the directions on the [toxicological profile home page](#), which also contains other important information about the profiles.

The information contained here was correct at the time of publication. Please check with the appropriate agency for any changes to the regulations or guidelines cited.

- Page last reviewed: March 3, 2011
- Page last updated: November 29, 2011
- Content source: [Agency for Toxic Substances and Disease Registry](#)

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Agency for Toxic Substances and Disease Registry, 4770 Buford Hwy NE,  
Atlanta, GA 30341  
Contact CDC: 800-232-4636 / TTY: 888-232-6348







## Technology Transfer Network - Air Toxics Web Site Methyl Bromide (Bromomethane)

74-83-9

### Hazard Summary-Created in April 1992; Revised in January 2000

Methyl bromide is used as a fumigant and pesticide. Exposure may occur during fumigation activities. Methyl bromide is highly toxic. Studies in humans indicate that the lung may be severely injured by the acute (short-term) inhalation of methyl bromide. Acute and chronic (long-term) inhalation of methyl bromide can lead to neurological effects in humans. Neurological effects have also been reported in animals. Degenerative and proliferative lesions in the nasal cavity developed in rats chronically exposed to methyl bromide by inhalation. Chronic inhalation exposure of male animals has resulted in effects on the testes at high concentrations. EPA has classified methyl bromide as a Group D, not classifiable as to human carcinogenicity.

Please Note: The main sources of information for this fact sheet are EPA's [Integrated Risk Information System \(IRIS\)](#), which contains information on inhalation chronic toxicity of methyl bromide and the [RfC](#), oral chronic toxicity and the [RfD](#), and the Agency for Toxic Substances and Disease Registry's (ATSDR's) [Toxicological Profile for Bromomethane](#). Other secondary sources include [The Merck Index](#) and EPA's [Health Effects Assessment for Bromomethane](#).

### Uses

- The primary use of methyl bromide is as a fumigant in soil to control fungi, nematodes, and weeds; in space fumigation of food commodities (e.g., grains); and in storage facilities (such as mills, warehouses, vaults, ships, and freight cars) to control insects and rodents. (2,7,10)

### Sources and Potential Exposure

- In most places, levels of methyl bromide in the air are usually < 0.025 parts per billion (ppb). Industrial areas have higher levels (ranging up to 1.2 ppb) because of releases from chemical factories. (1)
- Workers who fumigate homes and fields may be exposed to high levels of methyl bromide if proper safety precautions are not followed. (1)
- Trace amounts of methyl bromide have been detected in drinking water. (2)
- Some methyl bromide is formed naturally by algae or kelp in the ocean. (1)

### Assessing Personal Exposure

- The main breakdown product of methyl bromide (the bromide ion) can be measured in blood samples; this test is useful only if it is done within 1 to 2 days following exposure. (1)

### Health Hazard Information

#### Acute Effects:

- Studies in humans indicate that the lung may be most severely injured by the acute inhalation exposure of methyl bromide. Breathing high concentrations of methyl bromide may cause pulmonary edema, impairing respiratory function. (1,3)
- Acute exposure by inhalation of methyl bromide frequently leads to neurological effects in humans. Symptoms of acute exposure in humans include headaches, dizziness, fainting, apathy, weakness, confusion, speech impairment, visual effects, numbness, twitching, and tremors; in severe cases paralysis and convulsions are possible. Acute exposure may produce delayed effects. Symptoms may improve without treatment in less serious cases. (1,3)
- Methyl bromide is irritating to the eyes, skin, and mucous membranes of the upper respiratory tract. Dermal exposure to methyl bromide can cause itching, redness, and blisters in humans. (1)
- Kidney damage has been observed in humans who have inhaled high levels of methyl bromide. (1)
- Inhalation of methyl bromide may cause the liver to become swollen and tender, but no significant injury to the liver has been observed in humans. (1)
- Injury to the heart has been observed in mice and rats exposed to high concentrations of methyl bromide by inhalation. (1,3)
- Tests involving acute exposure of rats and mice have demonstrated methyl bromide to have high acute toxicity from inhalation and oral exposure. (4)

#### Chronic Effects (Noncancer):

- Data from an occupational study suggest that mild functional neurological impairment may result in humans chronically exposed to methyl bromide by inhalation exposure, but this is not conclusive due to concurrent exposure to other chemicals and inadequate quantitation of exposure levels and durations. (1,3,5)
- Neurological effects, including lethargy, forelimb twitching, tremors, and paralysis, have also been observed in animal studies. (3,6)
- Degenerative and proliferative lesions in the nasal cavity developed in rats chronically exposed to methyl bromide by inhalation. (3)
- The Reference Concentration ([RfC](#)) for methyl bromide is 0.005 milligrams per cubic meter (mg/m<sup>3</sup>) based on degenerative and proliferative lesions of the olfactory epithelium of the nasal cavity. The [RfC](#) is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious noncancer effects during a lifetime. It is not a direct estimator of risk but rather a reference point to gauge the potential effects. At exposures increasingly greater than the [RfC](#), the potential for adverse health effects increases. Lifetime exposure above the [RfC](#) does not imply that an adverse health effect would necessarily occur. (3)
- EPA has medium confidence in the study on which the [RfC](#) was based because even though the study was well conducted, it did not identify a no-observed-adverse-effect level ([NOAEL](#)); high confidence in the database because there is a chronic inhalation study in two species supported by subchronic inhalation studies in several species and because data are available on the developmental and reproductive effects of bromomethane as well as its pharmacokinetics following inhalation exposure; and, consequently, high confidence in the [RfC](#). (3)
- The Reference Dose ([RfD](#)) for methyl bromide is 0.0014 milligrams per kilogram body weight per day (mg/kg/d) based on epithelial hyperplasia of the forestomach in rats. (3)
- EPA has medium confidence in the study on which the [RfD](#) was based because it used the preferred route of administration for derivation of an oral [RfD](#), the study was adequately conducted, and the determination of epithelial hyperplasia of the forestomach was independently confirmed; medium confidence in the database; and, consequently, medium confidence in the [RfD](#). (3)

#### Reproductive/Developmental Effects:

- No information is available on the reproductive or developmental effects of methyl bromide in humans.
- Information from animal studies suggest that methyl bromide does not cause birth defects and does not interfere with normal reproduction except at high exposure levels. (1)
- Chronic inhalation exposure of male animals has resulted in effects on the testes at high concentrations. (1,3)
- Inhalation exposure of animals during gestation has not resulted in significant developmental effects, even when there was severe maternal toxicity. (1,3,5)

#### Cancer Risk:





# WG GENERA PACIFIC LTD

SUVA - 82 HARRIS ROAD  
P.O. BOX 79, SUVA  
PH: (679) 3312 633  
FAX: (679) 3236 336

LAUTOKA - LOT 9 ROYAL PALM ROAD, NAVUTU  
P.O. BOX 226 LAUTOKA  
PH: (679) 666 4090  
FAX: (679) 666 3470

WAILEKUTU - LAMI  
P.O. BOX 79, SUVA  
PH: (679) 3681 190  
FAX: (679) 3681 191

Web: [www.wgfji.com.fj](http://www.wgfji.com.fj)

Email: [genera@wgfji.com.fj](mailto:genera@wgfji.com.fj)

## FUMIGATION CERTIFICATE

### Article Details

Certificate No: 30485

Description of goods: 1 X BARGE - STC: 10MM KERBMIX.

Container/Distinguish markings: 1 X BARGE

Country of origin: FIJI ISLANDS

Country of destination: KIRIBATI

Client:

PACIFIC MARINE & CIVIL SOLUTION  
9-12 NUKUWATU ST, LAMI  
P O BOX 2611, GOVT BUILDING  
SUVA  
FIJI ISLANDS

Port of loading: SUVA, FIJI ISLANDS

Vessel: BARGE : MANDIRI

Name and address of consignee

MACONNELL DOWELL  
TARAWA  
KIRIBATI

### Treatment Details

Fumigation standards: Fiji Quarantine Standards

Name of fumigant: Methyl Bromide

Date of fumigation: 7/11/2014 Duration of fumigation:

Time of fumigation: 1700 Minimum temp: 21°C

Fumigation officer:

CHRIS RAFOI

Place of fumigation: OUT @ SEA

Total Volume M<sup>3</sup>: 3189.792

72Hours Dosage rate: 100g/m3

Actual gas reading after release: 5ppm

Bio security officer:

SHANIL PRASAD

Signature.....

Signature.....

Fumigation was carried out at OUT @ SEA

**Rentokil**  
**Initial**

PO Box 485  
Suva, Fiji Islands  
T: (679) 3340000  
F: (679) 3395720  
[www.rentokil.com.fj](http://www.rentokil.com.fj)

Certificate No: 24582

## **FUMIGATION CERTIFICATE**

DESCRIPTION OF GOODS: STC CRUSHER DUST AND PAPS

CONTAINER MARKING: AS ATTACHED.

FUMIGATION PREPARATION: METHYL BROMIDE FORMULATION: GAS

TOTAL VOLUME FUMIGATED (232.4M<sup>3</sup>) 7 X 20 FCL VESSELS: HIGHLAND CHIEF V 1406

DOSAGE (CH<sub>3</sub>Br): REQUIRED 150g/m<sup>3</sup> @ 21°C

### **FUMIGATION DATA**

DATE FUMIGATED: 24.10.14

DATE RELEASED: 28.10.14

EXPOSURE PERIOD REQUIRED: 72 HOURS GAS RELEASE: 5PPM

### **CONSIGNOR**

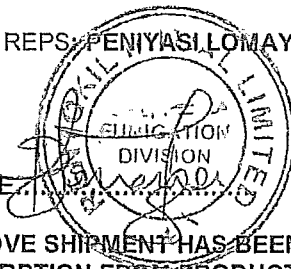
NAME: STANDARD CONCRETES  
ADDRESS: P O BOX 369,  
NASINU

### **CONSIGNEE**

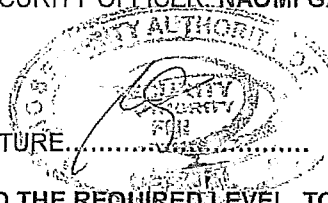
NAME: McCONNELL DOWELL CONSTRUCTION  
ADDRESS:

COMPANY REPS: PENIYASI LOMAYASI BIO SECURITY OFFICER: NAOMI GASARA.

SIGNATURE



SIGNATURE



THE ABOVE SHIPMENT HAS BEEN VENTED TO THE REQUIRED LEVEL. TO ALLOW FOR DESORPTION FROM PRODUCT, A FURTHER 4 HOURS VENTILATION PERIOD IS RECOMMENDED.

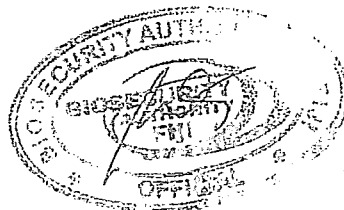
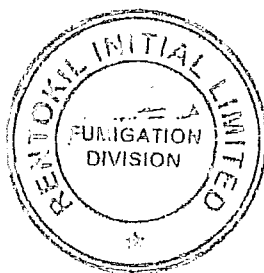
DATE: 28.10.14

THIS FUMIGATION WAS CARRIED OUT AT SCIL YARD, NASINU.  
"BRINGING EXCELLENCE AND QUALITY ASSURED"

Rentokii  
Initial

Standard Concrete Container Markings as per Job Sheet: 24582

No:	Container Markings
1	FCIU 341827-3
2	TEMU 203978-0
3	TTNU 394592-4
4	CAXU 317142-3
5	FSCU 349515-5
6	FCIU 396040-6
7	CLHU 301558-3
8	





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Suva, Fiji Islands  
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F: (679) 3395720  
[www.rentokil.com.fj](http://www.rentokil.com.fj)

Certificate No: 24209

## **FUMIGATION CERTIFICATE**

DESCRIPTION OF GOODS: **STC CRUSHER DUST (PAPS)**

CONTAINER MARKINGS: **AS ATTACHED**

FUMIGATION PREPARATION: **METHYL BROMIDE** FORMULATION: **GAS**

TOTAL VOLUME FUMIGATED: **(3751.60M<sup>3</sup>):113 X 20** VESSEL: **PAPUAN CHIEF V 320**

DOSAGE (CH<sub>3</sub>Br): **REQUIRED 150g/m<sup>3</sup>** @ **21°C**

### **FUMIGATION DATA**

DATE FUMIGATED: **19.09.14**

DATE RELEASED: **22.09.14**

EXPOSURE PERIOD REQUIRED: **72 HOURS**

GAS RELEASE: **5PPM**

### **CONSIGNOR**

NAME: **STANDARD CONCRETES**  
ADDRESS: **P O BOX 369**  
**SUVA**

### **CONSIGNEE**

NAME: **McCONNELL DOWELL CONSTRUCTION**  
ADDRESS:

COMPANY REPS: **RAKESH RAJU**

BIO SECURITY OFFICER: **ASHIKA PRASAD**

SIGNATURE.....



SIGNATURE.....

DATE: **23.09.14**



**THIS FUMIGATION WAS CARRIED OUT AT SCIL, NASINU YARD, NASINU**  
**'BRINGING EXCELLENCE AND QUALITY ASSURED'**



**Standard Concrete Container Markings as per Job Sheet: 24209**

No:	Container Markings
1	TCKU 291081-8
2	TTNU 137713-1
3	GLDU 344148-5
4	TCKU 290243-2
5	BSIU 238596-9
6	CAIU 203396-2
7	TCKU 198234-6
8	CAIU 217933-0
9	TCKU 203973-8
10	CAIU 302112-2
11	TCKU 140693-1
12	ISSU 072059-8
13	FCIU 222027-8
14	CAIU 203348-0
15	FCIU 317966-7
16	CRXU 195701-6
17	XINU 107203-2
18	XINU 126711-6
19	CAIU 295628-1
20	DRYU 202464-2
21	TGHU 385744-2
22	CLHU 327568-3
23	CAXU 328230-2
24	CAXU 328257-6
25	FCIU 403062-0
26	GATU 039712-9
27	TCKU 245984-9
28	CAIU 327508-7
29	TGHU 307441-0
30	GLDU 323805-6



## Standard Concrete Container Markings as per Job Sheet: 24209

No:	Container Markings
31	CAXU 683772-3
32	CAXU 295295-5
33	CRXU 330294-9
34	FCIU 314028-5
35	TCKU 209722-5
36	CAIU 203595-0
37	CRXU 107408-8
38	IPXU 364643-7
39	ISSU 061074-9
40	TCKU 283106-7
41	CRXU 343776-0
42	IPXU 375072-9
43	GATU 124390-9
44	CXDU 177080-9
45	TTNU 145759-8
46	TCKU 204321-3
47	CRXU 344073-7
48	CRXU 337418-9
49	FCIU 294820-0
50	FCIU 347873-4
51	CAIU 221585-9
52	CAIU 295705-6
53	TCKU 347180-7
54	ISSU 071373-1
55	CAIU 334004-8
56	CAXU 676724-6
57	CAXU 317404-1
58	TCKU 327030-9
59	CAIU 250435-8
60	TGHU 249761-3





## Standard Concrete Container Markings as per Job Sheet: 24209

No:	Container Markings
61	FCIU 351403-0
62	TGHU 221851-3
63	TGHU 204141-2
64	TCKU 324500-8
65	TCKU 148290-5
66	DFSU 229900-2
67	TTNU 130139-4
68	TGHU 320118-2
69	CAXU 322870-2
70	GLDU 293373-1
71	AMFU 300328-6
72	GESU 370903-6
73	TTNU 138977-0
74	TTNU 375998-2
75	TTNU 398108-0
76	TGHU 276282-5
77	CAIU 217029-2
78	TTNU 180051-5
79	FCIU 306559-8
80	CAIU 205780-9
81	FSCU 793174-5
82	CAXU 649965-2
83	FCIU 226566-8
84	CAIU 230965-0
85	CAXU 326296-5
86	FSCU 332880-0
87	TTNU 169926-7
88	CAIU 246440-3
89	TCKU 252973-5
90	CRSU 154009-9





**Standard Concrete Container Markings as per Job Sheet: 24209**

No:	Container Markings
91	CXDU 182512-0
92	CRXU 327245-9
93	TTNU 384828-8
94	FSCU 398773-0
95	TCKU 134244-1
96	TGHU 006850-1
97	CAIU 327760-2
98	FCIU 331163-9
99	TCKU 316078-6
100	FCIU 350879-9
101	TGHU 243902-6
102	CAIU 295670-1
103	CAIU 250270-9
104	TCKU 321331-4
105	TTNU 412157-4
106	TEMU 283322-8
107	CAXU 656293-0
108	FCIU 388982-2
109	TTNU 372490-2
110	CLHU 292288-8
111	TCKU 246207-7
112	TGHU 089020-0
113	AMFU 310203-6







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Certificate No: 24210

## **FUMIGATION CERTIFICATE**

DESCRIPTION OF GOODS: **STC SEALING CHIPS**

CONTAINER MARKINGS: **AS ATTACHED**

FUMIGATION PREPARATION: **METHYL BROMIDE** FORMULATION: **GAS**

TOTAL VOLUME FUMIGATED: **(265.60M<sup>3</sup>):8 X 20** VESSEL: **PAPUAN CHIEF V 320**

DOSAGE (CH<sub>3</sub>Br): **REQUIRED 100g/m<sup>3</sup>** @ **21°C**

### **FUMIGATION DATA**

DATE FUMIGATED: **19.09.14**

DATE RELEASED: **22.09.14**

EXPOSURE PERIOD REQUIRED: **72 HOURS**

GAS RELEASE: **5PPM**

### **CONSIGNOR**

NAME: **STANDARD CONCRETES**  
ADDRESS: **P O BOX 369**  
**SUVA**

### **CONSIGNEE**

NAME: **McCONNELL DOWELL CONSTRUCTION**  
ADDRESS:

COMPANY REPS: **RAKESH RAJU**

BIO SECURITY OFFICER: **ASHIKA PRASAD**

SIGNATURE



SIGNATURE

DATE: **23.09.14**



**THIS FUMIGATION WAS CARRIED OUT AT SCIL, NASINU YARD, NASINU.**  
**'BRINGING EXCELLENCE AND QUALITY ASSURED'**



**Standard Concrete Container Markings as per Job Sheet: 24210**

**10 MM SEALING CHIPS**

No:	Container Markings
1	TTNU 394559-1
2	BSIU 221307-0
3	FCIU 207125-6
4	CAIU 245411-2

**7 MM SEALING CHIPS**

No:	Container Markings
1	CRXU 343084-7
2	TCKU 316402-0
3	TCKU 247177-8
4	GESU 295955-5



**Appendix J:**  
**Contract Variations**

## Schedule of Variations:

Details		Status				Cost Implications		
Ref	Description	Potential	Preparation	Review	Approved	Increase	Decrease	Amount (AUD)
1	Work scope (1)				X		X	-1,350,777
2	Material supply by ESAT/PVU				X	X		100,000
3	Betio causeway remedial works				X	X		40,000
4	Coastal protection works				X	X		50,000
5	Standardisation of Water Supply Fittings				X	X		11,575
6	Solar Street Lighting – LED proposal				X	None	None	0
7	Valve chambers (KAP)				X	Yes		20,000
8	Valve chambers (STSISP)				X	Yes		120,000
9	Basecourse specification change				X	None	None	0
10	Deferral of Betio causeway pavement works				X	None	None	0
11	Prime				X	X		200,000
12	Deletion of selected Betio causeway works				X		X	-1,330,000
13	Work scope (2), includes Temaiku coastal sites 10 & 11				X	X		1,950,000
14	Chamber covers (TSKL)				X	X		20,000
15	KOIL building				X	X		11,500
16	Services initiatives (to mitigate conflict issues)				X	X		800,000
17	Chamber covers (KAP)				X	X		80,000
18	Airport road 'extension' (KAIP)				X	X		200,000
								922,298

**Appendix K:**  
**Contract Claims**

## Schedule of Claims:

Details		Status	Particulars	Review	Determination	Dispute	Cost Implications		
Ref	Description	Notice					Increase	Decrease	Amount (AUD)
1	Work scope (1)	X							
2	Betio causeway remedial works	X							
3	Damage to Betio causeway	X							
4	Deferral of Betio causeway pavement works	X	X	X	X		Claim rejected by Employer, works deleted – prompted new claim #19		
5	Introduction of VAT	X							
6	Prime	X							
7	Underground service obstructions	X	X	X			Claim for EoT of ~3 months and costs of ~\$2 million		
8	Survey controls and Setting out		X	X	X		No basis of claim so NO award		
9	Services, no power disconnection	X	X	X			Claim for EoT of 1 day		
10	Supply of local materials	X							
11	Services, Impact on clearing & u-drain works	X							
12	Ducts through seawalls	X							
13									
to	Underground service obstructions	X							
17									
18	Delay to TACL Contract	X							
19	Deletion of Betio causeway pavement works	X							
20									
To	Underground service obstructions	X							
39									

## Appendix L:

### Payments





**Kiribati Road Rehabilitation Project****Contract No. KIR-12/01**

Interim Payment Certificate No. IPC 19

Period Ending: 31 October 2014

Bill Group Series	Work Item  Variations	Amounts(Au\$) As Bid	Certified		
			Previous	Current	To Date
1000	General	12,827,618.89	8,487,976.80	334,527.30	8,822,504.10
2000	Drainage <sup>1</sup>	4,798,140.15	786,888.91	178,516.90	965,405.82
3000	Earthworks	613,730.00	18,960.24	17,172.01	36,132.25
3000	Pavement <sup>1</sup>	7,716,081.40	813,874.13	101,689.40	915,563.53
4000	Surfacing <sup>1</sup>	13,442,454.20	1,274,883.22	361,128.99	1,636,012.21
5000	Ancillary <sup>1</sup>	5,108,194.99	21,093.60	538.56	21,632.16
6000	Structures	1,106,239.54	612,763.95	295.31	613,059.25
8000	Water <sup>5</sup>	1,058,305.05	399,875.45	0.00	399,875.45
9000	Dayworks <sup>3</sup>	237,991.30	216,396.79	2,842.63	219,239.42
Total Bid Price Exclusive of local taxes and duties		46,908,755.52	12,632,713.08	996,711.10	13,629,424.19
Adjustments (1)				0.00	
Changes in Legislation				0.00	
Changes in Cost			36,871.07	6,130.03	43,001.11
Total Adjustments (1)			36,871.07	6,130.03	43,001.11
Totals after Adjustments (1)			12,669,584.16	1,002,841.13	13,672,425.29
Adjustments (2)				0.00	
Retention (@10%)			-1,266,958.42	-100,284.11	-1,367,242.53
Advance			4,819,795.72	0.00	4,819,795.72
Advance Repayment			-444,762.35	-200,568.23	-645,330.57
Materials on Site			767,482.72	-235,558.06	531,924.67
Total Adjustments (2)			3,875,557.68	-536,410.40	3,339,147.29
Totals after adjustments (1) & (2)			16,545,141.84	466,430.74	17,011,572.58
<b>Amount of this Certificate</b>				<b>466,430.74</b>	

I hereby certify that the foregoing is a true and proper statement of amounts due to McConnell Dowell (Aust) Pty Ltd. as at 31 October 2014



Ian Archer  
Resident Engineer  
on behalf of Roughton International Ltd

Date: 17<sup>th</sup> November 2014

# Kiribati Road Rehabilitation Project

Contract No. KIR-12/01

Interim Payment Certificate No. IPC 20

Period Ending: 30 November 2014

Bill Group Series	Work Item  Variations	Amounts(Au\$) As Bid	Certified		
			Previous	Current	To Date
1000	General	12,827,618.89	8,822,504.10	683,572.88	9,506,076.97
2000	Drainage <sup>1</sup>	4,798,140.15	965,405.82	342,680.91	1,308,086.73
3000	Earthworks	613,730.00	36,132.25	1,892.55	38,024.80
3000	Pavement <sup>1</sup>	7,716,081.40	915,563.53	703,519.81	1,619,083.34
4000	Surfacing <sup>1</sup>	13,442,454.20	1,636,012.21	721,809.37	2,357,821.58
5000	Ancillary <sup>1</sup>	5,108,194.99	21,632.16	359.04	21,991.20
6000	Structures	1,106,239.54	613,059.25	93,909.76	706,969.01
8000	Water <sup>5</sup>	1,058,305.05	399,875.45	25,500.86	425,376.31
9000	Dayworks <sup>3</sup>	237,991.30	219,239.42	154.55	219,393.97
Total Bid Price Exclusive of local taxes and duties		46,908,755.52	13,629,424.19	2,573,399.73	16,202,823.92
Adjustments (1)				0.00	
Changes in Legislation				0.00	
Changes in Cost			43,001.11	15,808.75	58,809.86
Total Adjustments (1)			43,001.11	15,808.75	58,809.86
Totals after Adjustments (1)			13,672,425.29	2,589,208.49	16,261,633.78
Adjustments (2)				0.00	
Retention (@10%)			-1,367,242.53	-258,920.85	-1,626,163.38
Advance			4,819,795.72	0.00	4,819,795.72
Advance Repayment			-645,330.57	-517,841.70	-1,163,172.27
Materials on Site			531,924.67	-321,877.76	210,046.91
Total Adjustments (2)			3,339,147.29	-1,098,640.31	2,240,506.98
Totals after adjustments (1) & (2)			17,011,572.58	1,490,568.18	18,502,140.76
Amount of this Certificate				1,490,568.18	

I hereby certify that the foregoing is a true and proper statement of amounts due to McConnell Dowell (Aust) Pty Ltd. as at 30 November 2014

*Ian Archer*

Ian Archer  
Resident Engineer  
on behalf of Roughton International Ltd

Date:

*1<sup>st</sup> December 2014*

# KIRIBATI ROAD REHABILITATION PROJECT

## ADJUSTMENT FOR CHANGES IN COST

Highlighted adjustment factors subject to update once information becomes available.

Certificate			Change in Cost (AUD)				
IPC No.	Year	Month	Amount (BoQ items less Prov Sums)	Adjustment Factor	Adjusted Amount	Difference Month	Cumulative
1	2013	April					
2		May	1,235,628.56	1.0002	1,235,875.69	247.13	247.13
3		Jun	933,110.89	0.9945	927,978.78	-5,132.11	-4,884.98
4		Jul	857,321.59	0.9945	852,606.32	-4,715.27	-9,600.25
5		Aug	498,424.26	0.9945	495,682.93	-2,741.33	-12,341.58
6		Sep	399,078.21	1.0056	401,313.05	2,234.84	-10,106.74
7		Oct	392,827.93	1.0056	395,027.77	2,199.84	-7,906.90
8		Nov	388,049.67	1.0056	390,222.75	2,173.08	-5,733.82
9		Dec	426,906.11	1.0028	428,101.45	1,195.34	-4,538.48
10	2014	Jan	660,549.61	1.0028	662,399.15	1,849.54	-2,688.94
11		Feb	392,671.80	1.0028	393,771.28	1,099.48	-1,589.46
12		Mar	622,018.78	1.0062	625,875.30	3,856.52	2,267.06
13		Apr	608,921.84	1.0062	612,697.16	3,775.32	6,042.38
14		May	923,183.10	1.0062	928,906.84	5,723.74	11,766.12
15		Jun	704,335.74	1.0062	708,702.62	4,366.88	16,133.00
16		Jul	1,188,598.59	1.0062	1,195,967.90	7,369.31	23,502.31
17		Aug	1,070,547.43	1.0062	1,077,184.82	6,637.39	30,139.71
18		Sep	1,085,704.12	1.0062	1,092,435.49	6,731.37	36,871.07
19		Oct	988,714.99	1.0062	994,845.02	6,130.03	43,001.11
20		Nov	2,549,798.02	1.0062	2,565,606.77	15,808.75	58,809.86
21		Dec					
22	2015	Jan					
23		Feb					
24		Mar					
25		Apr					
26		May					
27		Jun					
28		Jul					