Work Plan for Kuta Road, Western Highlands Province

The Pilot Project for Capacity Development on Road Maintenance in the Independent State of Papua New Guinea

Work Plan for Introduction for Civil Staff

To understand formal installation procedure for stone pitching and crossing pipe culvert

07 June 2017

1. Objectives

   Before mobilization at pilot site in Kuta Road, counter-parts civil staff and experts should understand equal intension and definition on the work with each other at a secure place. Because practical training at Kuta Road would face some obstacles such as public traffic and pedestrian control etc. And also speed of workman-ship will be estimated on this tentative training because the stock pile yard has limited space than at actual site.

2. Trial demonstration at DoW compound (Refer to Drawing-1, 2 and 3)

   Refer to the attachment for location map and rough planned sketch. The place is likely to required existing drainage extension because of water pool during rain.

3. Work procedure

   When required personnel and material are ready and for the surveyor or project engineer to install the finishing stake to guide the alignment and the formation, the following working procedure would be carried out.

   3-1 Set up the guide of the installation (Pegs or finishing stake)

   1) Install the peg(s) (single or plural depending on stability requirement to the peg) around certain distance away from working place and measured on the planned drawing.
   2) Batten timber will be nailed on the peg or any marking horizontally around 0.5m high (certain height is acceptable due to the actual condition but all interval height spaces on each peg should be the same) as placed on top of ground level as the formation height from the ground level.
   3) The elevation of the batten timber will be identified by the measurement of levelling survey with typical section. For instance, DL= 10.500m when formation height is 10.000m. Opposite batten timber should be the same DL=10.500 on the same level will be constructed.
   4) Calculate the height of the next finishing stake between the horizontal distance and planned drainage slope, where;

a) Planned drainage slope = 1.5 %

b) Horizontal distance =10m

c) The height of next formation = 10.000 – 10 x 1.5% =9.85m

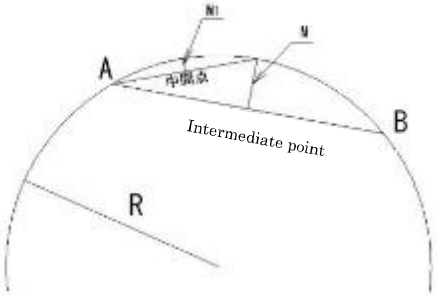
d) Hence, height of the finishing stake = 9.85 + 0.5 =10.35m

Note1: Height interval between formation and the finishing stake should be the same for every stakes to measure intermedium structure by strings.

Note2: When the alignment will be required the curvature, practical formula to set up the degrees of the curvature is useful. The formula is as follows,

M＝C×C÷8÷R, M1=M÷4, M2=M1÷4 (Refer to the figure below)

Note: 8 and 2 are constant.



"中間点" means intermediate point

5) Measure the horizontal distance precisely from the planned center and marked timber to check on typical section.

3-2 Excavation according to typical section

Excavation shall be carried out in accordance with the line shown as dotted line on Drawing-2 attached.

Excavation is executed by excavator in general, but slope trimming(H=0.45m) and base surface levelling(W=1.09m) is carried out by manual in order to reduce excess-excavation and not to disturb the natural soil as much as possible.

3-3 Base

Base work consist of reinforcement works and concreting works.

"Base" is the most important structure to fix formation height and alignment. Therefore, we recommend that formwork should be installed and the elevation and the alignment of formwork to be checked before casting concrete. When the base concrete will be in right position based on plan, stone pitching can be constructed properly.

(i) Reinforcement

Wire mesh F-62 is installed before concreting; Wire mesh shall be placed in the middle with spacer blocks to maintain the necessary height.

(ii) Concreting

Grade 15 concrete shall be used for concreting. (cement:270～350kg/m^3)

Placing, finishing and curing shall be in accordance with Group14'Concrete Structure' of the Specification for Road and Bridge Works

3-4 Stone Pitching

(i) Weep Holes

Before stone pitching, ϕ 50mm PVC pipes are placed on base concrete at 1.5m interval. Filter mat (i.e. sand bag geotextile) is attached at the inlet side of each pipe to prevent the filter material/sand from washing out

(ii) Stone Pitching

Stone pitching shall be carried out in accordance with Group 9. Masonry for Structure:9-1: Stone Pitching of' Specification for Road and Bridge Works'

Stone/Boulder or cobble shall be of the dimension of 150mm minimum size.

Mortar used shall be of the *proportion of 1:2 (cement: sand) on the Specification. However, 1:3 ratio for wall and 1:4 ratio for foundation are applied at other countries including Japan in the specification, if the result can be guaranteed.

Filter material made of pebble stone (less than ϕ 60mm) and sand shall be used as backfill~~ed~~ simultaneously with stone pitching

*: For precise measurement, wooden box should be prepared such as 30 x 30cm instead of spade.

3-5 Pipe Culvert

Corrugated steel pipe which comply with the requirement of AS 2041 &2042 shall be used.

Two type of corrugated steel pipe are utilized i.e. ϕ 600 and ϕ 900.

Pipe may be wholly or partially assembled adjacent to its final location and lifted into position.

Taking account of traffics to allow passing, cross culvert installation and following backfill works shall be executed in such a manner that half lane should be constructed first~~ly~~ and the other lane to be constructed later.

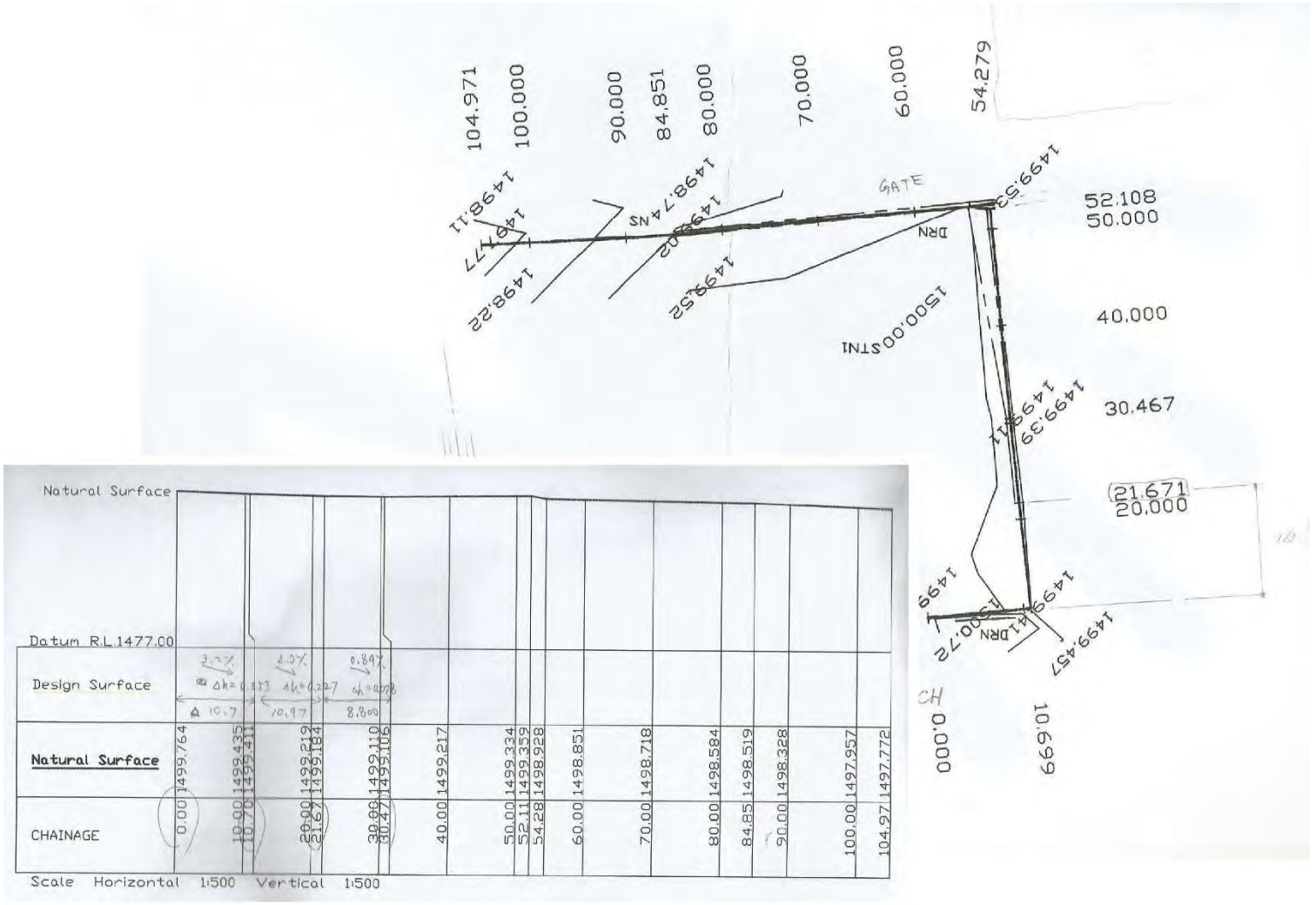
The backfill on both sides of the pipes shall be placed concurrently to prevent distortion of corrugated metal pipes.

Drawing showing connection between lined drain and corrugated metal pipe which will be in alternative position is shown in Drawing-5

Drawing- 1

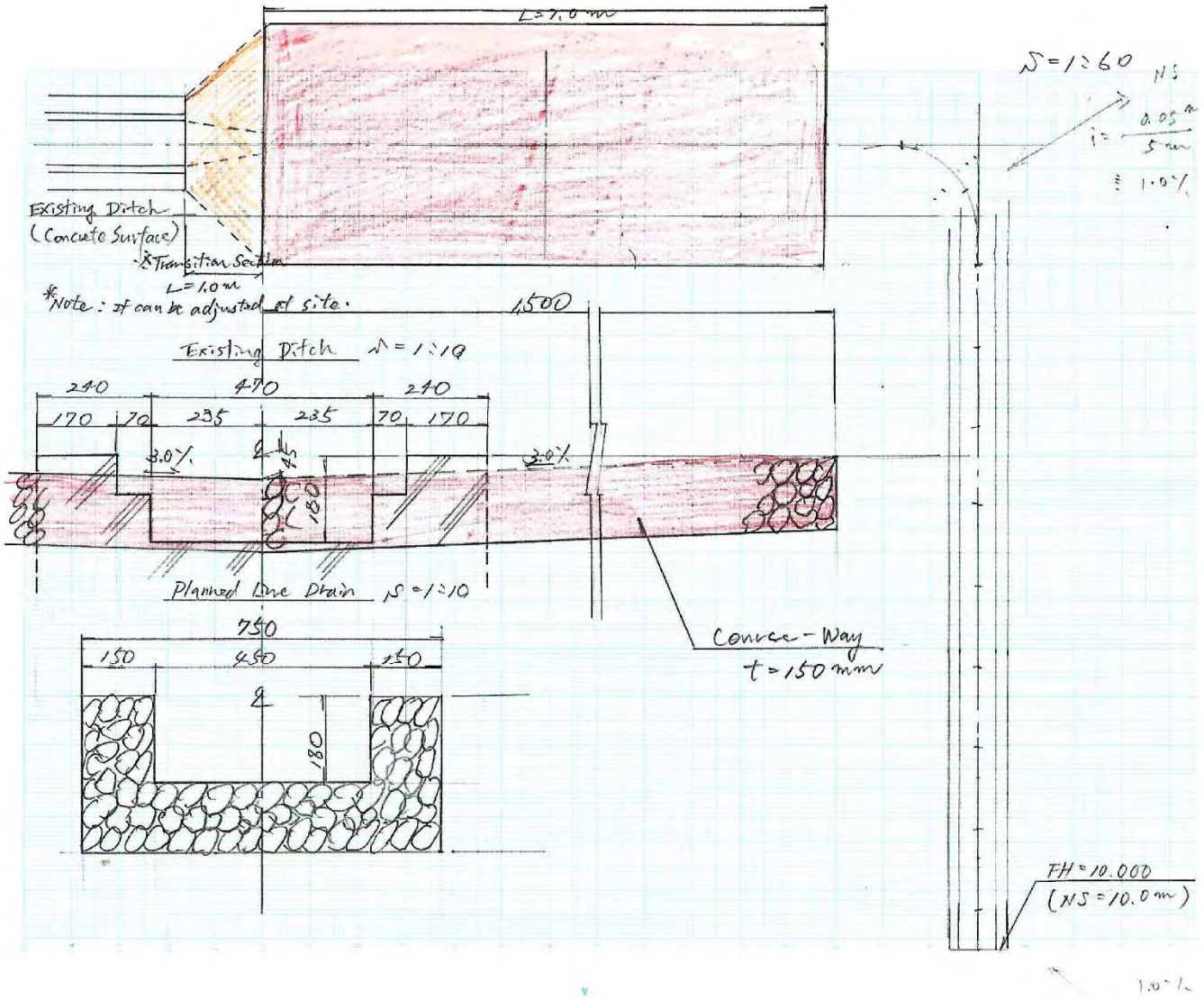
Topo by WHP

Surveyor team



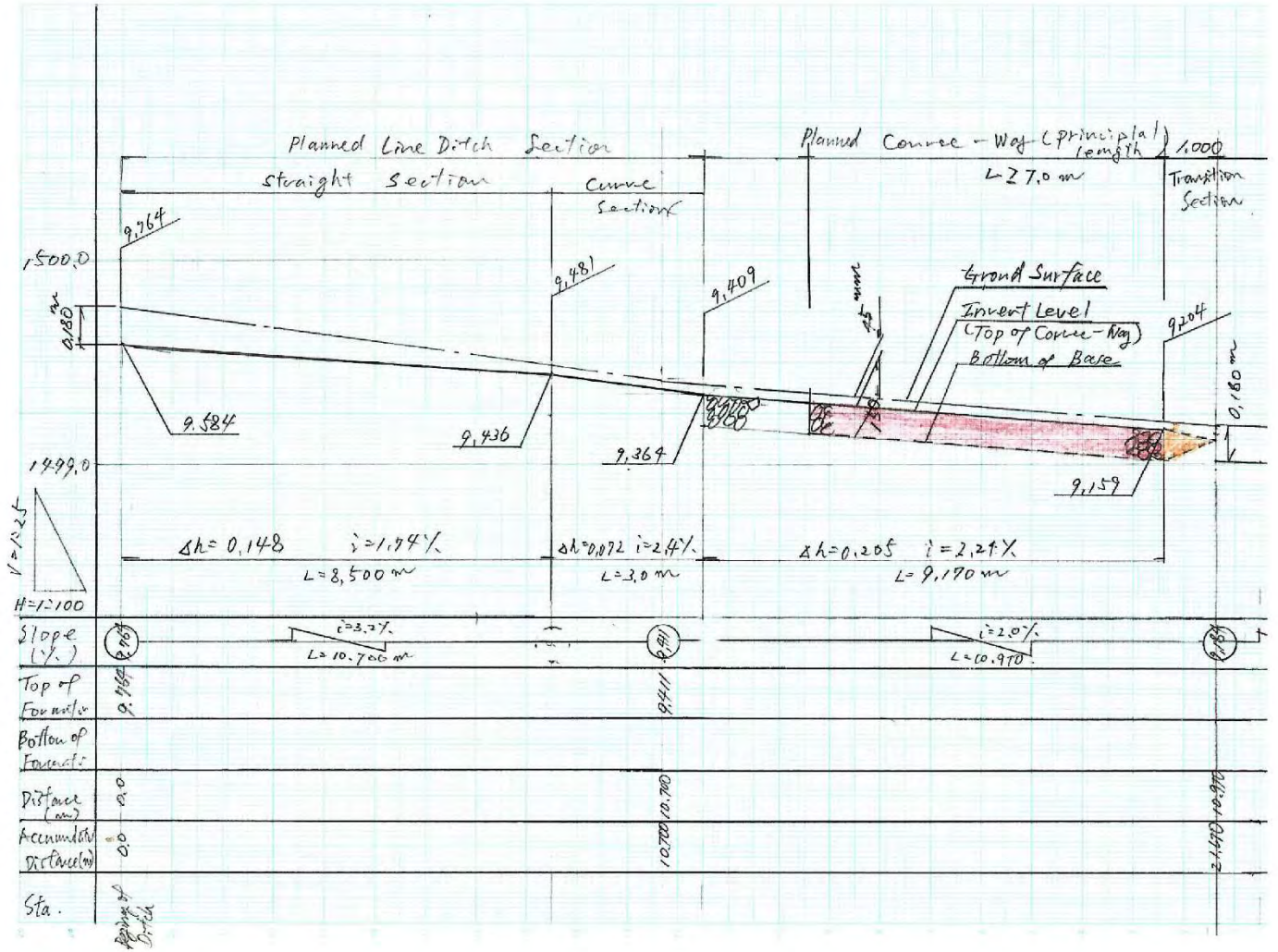
Drawing- 2

Red: The area for Trial

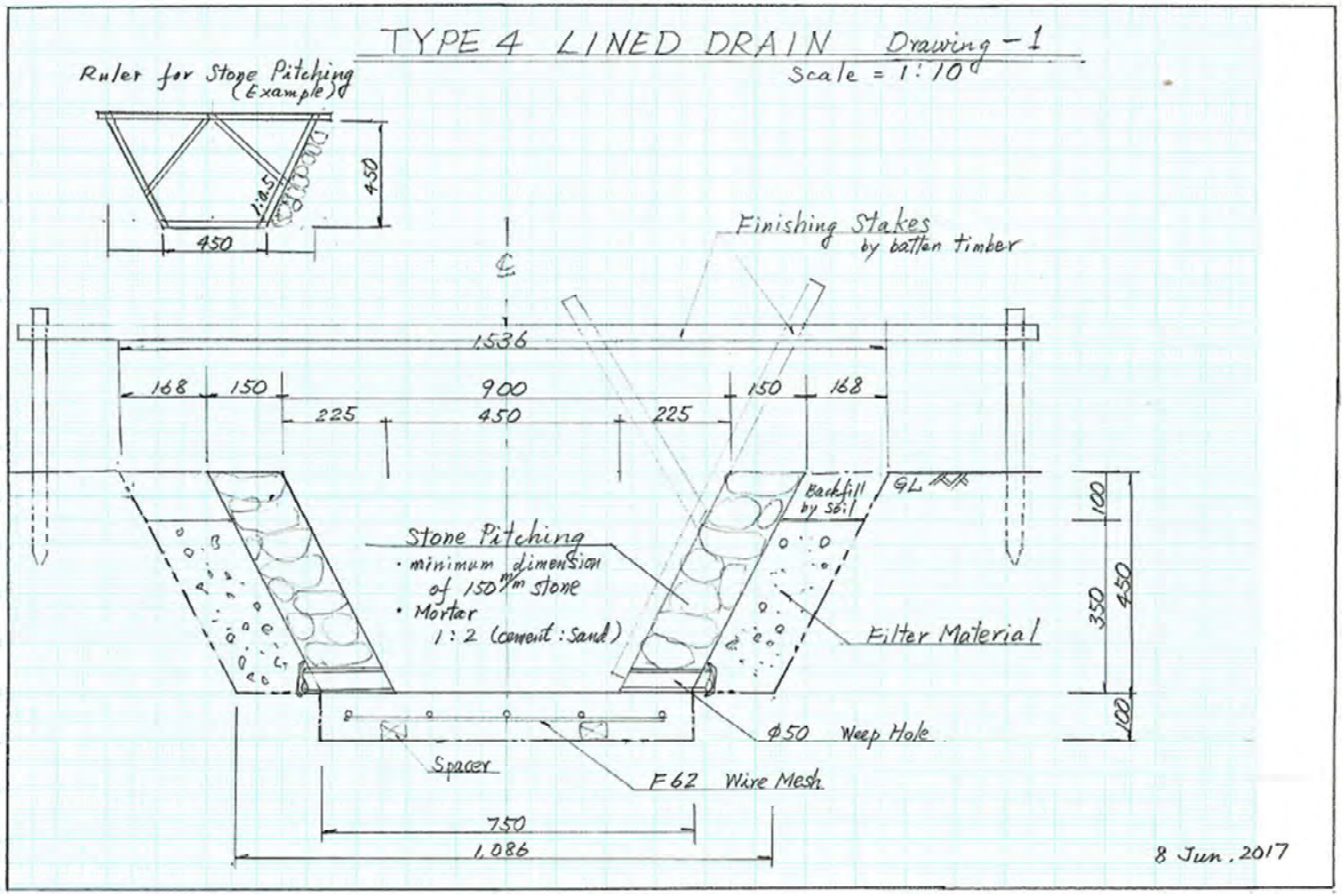


Drawing- 3

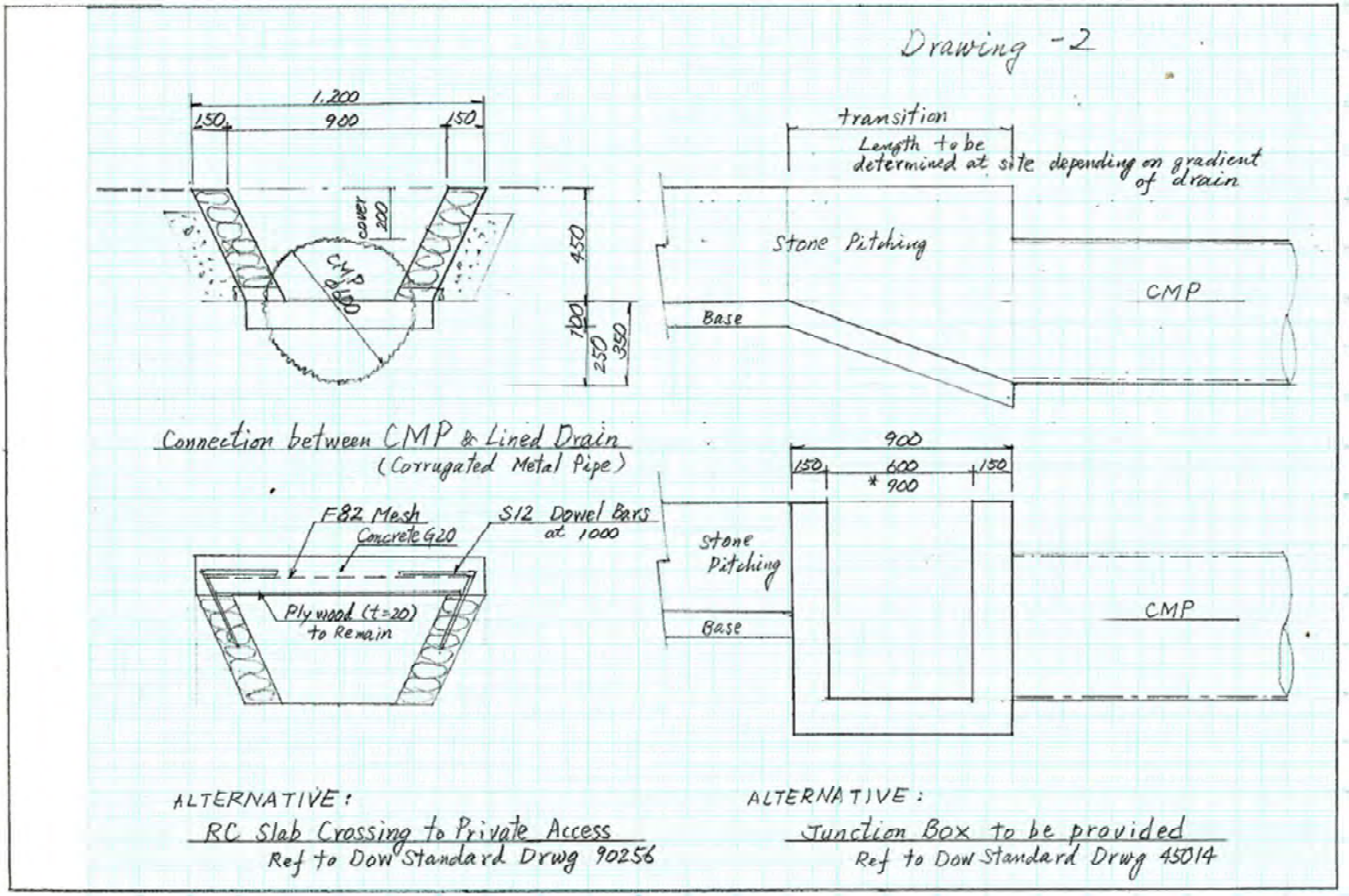
Red: The area for Trial



Drawing- 4


TYPE 4 LINED DRAIN Drawing -1
Scale = 1:10
Ruler for Stone Pitching (Example)
1:0.5
450
450
Finishing Stakes by batten timber
1536
168
150
900
150
168
225
450
225
Backfill by Soil
GL
Stone Pitching
· minimum dimension of 150 mm stone
· Mortar 1:2 (cement : Sand)
Filter Material
100
350
450
100
Φ50 Weep Hole
Spacer
F62 Wire Mesh
750
1,086
8 Jun. 2017

Drawing- 5


Drawing -2
1,200
150
900
150
cover
200
CMP Ø900
450
100
250
350
Connection between CMP & Lined Drain
(Corrugated Metal Pipe)
F82 Mesh
Concrete G20
S12 Dowel Bars
at 1000
Plywood (t=20)
to Remain
ALTERNATIVE:
RC Slab Crossing to Private Access
Ref to Dow Standard Drwg 90256
transition
Length to be
determined at site depending on gradient
of drain
Stone Pitching
CMP
Base
900
150
600
* 900
150
Stone
Pitching
CMP
Base
ALTERNATIVE:
Junction Box to be provided
Ref to Dow Standard Drwg 45014

Project Report for Makun Perigo Sawarin Back Road & Town Road Inventory for Wewak, East Sepik Province

DEPARTMENT OF WORKS
EAST SEPIK PROVINCIAL OFFICE

PO Box 106
WEWAK ESP
Ph.: 4562566
Fax: 4562310

Action Officer: R Agai
Designation: PCE
Our Reference:
Date: 24/08/2017

JICA PROJECT REPORT

1.00 Geotechnical Laboratory Offices

The work on the Laboratory office started on the 31st of July and was completed on the 23rd of August 2017. The office space is about 5m x 4m and when it was completed, a new air condition was installed. The other accessories for the lab such as laptop, filing cabinets, chairs, tables and stationaries have not yet gone into the office. The Cheques for this item have been printed out but there isn't any reimbursement so we are waiting for the reimbursement.

Office construction

Office construction

Office completed and painting in progress

Air condition installed in the office

2.00) Makun / CIS Road

There are two different works done here and they are.

1) Makun /. CIS Road 3.1km
2) Perico River Diversion 870m

Our current balance for this work is K537, 000.00;

Stormwater K177,000.00

PTD K360.000

2.10) Makun /. CIS Road

On the 10th of August, DOW ESP had a meeting with the Provincial Government through the Storm water office. In the meeting DOW mentioned about the Landowner issues that was affecting and delaying project The Project Manager for Storm water assured us that they would deal and settle the crops and land acquisition with the Landowners.

DOW mobilised to site on the 16th August 2017.The works done here were

1) Clearing & Grubbing of 2.2km of road length
2) Formation of the existing subgrade
3) Construct Table Drains

Our plan is to allow our survey team to set the Road Profile as designed with the Chainages next week and we can continue the other works.

Plants used on site to date were;

2 x Graders – 1 for the clearing and grubbing works and the other was used for the road formation and table drain construction.

1 x Roller for compaction

1 x Backhoe for 4 hours only to remove the clay materials blocking the drains.

2.20) Stock Pile

There is about 1,000.00m3 of raw river gravel already on site for any soft spot treatment works and drainage bedding works

Clear & Grub

Road Formation

2.30) Perico River Diversion 870m

The river diversion works commence on the 17th August 2017. The plant used was an excavator only which was used to do the clearing and grubbing from the CIS area to the sea at Boram, The clearing and grubbing works has been completed in which the total length was 870m and the average width was 20m. The current clearing begins in front of the CIS Institution and ends at the Pukpuk Bridge near the Boram Beach.

Clearing & Grubbing Works

Outlet at Pukpuk Bridge

3.00) Sealing

The Sealing Chips were purchased from Greenhill Ltd at their crusher site at Damap. The chips were hauled from Damap which is about 150km from Wewak and stored at the DOW Yard. There were 4 PTD dump trucks used to haul the chips. Also the roads to and fro for the haulage of chips were maintained to allow easy accessibility of chips

3.10) 19mm Chips

There is about 150m3 of 19mm chips on site

19mm Chips

3.20) 14mm Chips

There is about 30m3 of 14mm chips on site

14mm Chips

3.30) Sealing Spray Truck

The spray truck is undergoing minor maintenance works. A new engine was purchased and placed in the truck – overall the truck is ready for any sealing works

3.40) Kettle

The DOW kettle was brought in from Yangoru and is currently in the DOW Yard

3.50) Crushed Basecoarse

There is about 300m3 of crushed basecoarse stockpiled at the DOW Yard

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Raymond Agai

PCE

Results of Investigation on Town Road in Wewak

6 July 2017

1. Introduction

   The investigation was carried out on both 3rd and 4th July 2017 by DoW Wewak civil staff and providing the attached summary and photos regarding current existing condition. If the detail assessment is required, further investigation will be very necessary. On the technical point of view during short investigation, the facts, issues and comments are as follows,

2. Facts
   1) Approximately 10% on whole area where we have investigated is damaged such as potholes and exposed existing base course.
   2) Approximately 90% of damaged areas indicated and it seems to be caused due to major deteriorated reasons such as insufficient drainage and slow speed due to heavy vehicles etc.
   3) Approximately 10% of damaged areas are likely due to general deteriorations such as depreciation of pavement structure and construction failure etc.

3. Issues
   1) If the cause of defects will not be solved with repair works, it may defect soon with the same reason. For instance, proper drainage system will be required with pavement repair works somewhere, unless otherwise it would depreciate the repaired pavement due to water saturation.

4. Comments
   1) When the repair works will be implemented for near future, proper quality control will be required. For instance, before laying of base course, road bed (maybe subbase surface) should be confirmed sufficient CBR by DCP (more than 30%)
   2) Base course and sealing construction for patching or full-depth reconstruction and also proper quality checking will be needed however, there is no such apparatus and equipment to check in Wewak provincial office at present.
   3) Meanwhile, proper side ditches (size and the system) on somewhere which are indicated on summary table will be planed before the repair works.
   4) Defects due to general deteriorations can be repaired after checking existing subbase durability with cement concrete materials if the quality control issues cannot be established soon. However cost and benefit analysis will be highly recommended before the commencement.

   Mr. Raymond Agai
   PCE, Wewak

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
1	D1-1	1+120	23	1.5	2.0	3.0	Major pothole				Major pothole	Boram Road (Carltex Bridge)	Position behind the abutment.
2	D1-2	1+140	23	2.5	7.5	18.8	Major pothole					Boram Road (Carltex Bridge)	Position behind the abutment.
3	D1-3	1+140	23	8.0	8.0	64.0	Exposed base course -Full Width					Boram Road (Carltex Bridge)	Position behind the abutment.
4	D1-4	1+140	23	2.0	4.0	8.0	Major pothole					Boram Road (Carltex Bridge)	Position behind the abutment.
5	D2-1	1+200	21	1.8	2.5	4.5	Major pothole					Beach Road (intersection to Boram Road)	Low speed by heavy vehicle
6	D2-2	1+200	21	1.2	1.3	1.6	Major pothole					Beach Road	
7	D2-3	1+200	21	3.0	4.5	13.5	Major pothole					Beach Road	
8	D2-4	1+200	21	2.5	3.5	8.8	Major pothole					Beach Road	
9	D3	1+220	20					1.0	1.2	1.2	Major pothole	Beach Road	
10	D4	1+250	20	8.8	9.5	83.6	Exposed base course -Full Width					Beach Road	
11	D5	1+270	21	0.5	0.7	0.4	Major pothole					Beach Road	
12	D6	1+300	19	1.3	3.5	4.6	Crocodile crack					Beach Road	
13	D7	1+310	19					0.3	0.3	0.1	Pothole	Beach Road	
14	D8	1+320	19					1.2	1.5	1.8	Major pothole	Beach Road	
15	D9	1+340	19	0.5	0.5	0.3	Pothole					Beach Road	
16	D10	1+350	19	2.3	3.0	6.9	Major pothole					Beach Road (Yoshi Clothing)	
17	D11-1	1+440	18					1.0	1.0	1.0	Major pothole	Beach Road	
18	D11-2	1+450	18	0.3	0.3	0.1	Pothole					Beach Road	
19	D11-3	1+470	18					1.0	1.0	1.0	Major pothole	Beach Road	
20	D11-4	1+480	17					1.4	1.6	2.2	Major pothole	Beach Road	
21	D11-5	1+500	17					0.7	5.0	3.5	Major pothole	Beach Road	
22	D11-6	1+520	16					0.5	0.5	0.25	Pothole	Beach Road	Low elevation height
23	D11-7	1+530	16	0.3	0.3	0.1	Pothole					Beach Road	Low elevation height
24	D11-8	1+550	16	4.0	26.0	104.0	Exposed base course					Beach Road	Lowest (Crossing culvert)
25	D11-9	1+600	16	2.0	3.0	6.0	Major pothole					Beach Road	Low elevation height
26	D11-10	1+650	16	0.3	0.3	0.1	Pothole					Beach Road	Low elevation height
27	D11-11	1+670	16	1.0	1.0	1.0	Major pothole					Beach Road	Low elevation height
28	D11-12	3+100	18	1.0	1.0	1.0	Major pothole					Beach Road	
29	D11-13	3+300	18	0.3	0.3	0.1	Pothole					Beach Road	
30	D12-1	3+300	16	9.0	33.0	297.0	Exposed base course -Full Width					Beach Road (Mobil Intersection)	Low elevation height
31	D12-2	3+300	16					1.5	14.0	21.0	Major pothole	Beach Road	Low elevation height
32	D12-3	3+350	16	1.0	1.0	1.0	Major pothole					Beach Road (Boral Gas)	Low elevation height
33	D12-5	3+500	16	1.0	1.0	1.0	Major pothole					Beach Road	Low elevation height
34	D12-4	3+400	16					2.5	5.0	12.5	Major pothole	Beach Road	Low elevation height
35	D12-6	3+500	16	1.0	1.0	1.0	Major pothole					Beach Road	Low elevation height
36	D12-7	3+550	16	3.0	3.5	10.5	Major pothole					Beach Road (Garamut Hardware)	Low elevation height
37	D12-8	3+700	16					3.5	16.0	56.0	Exposed base course	Beach Road	Low elevation height
38	D12-9	3+600	16					2.5	2.8	7.0	Major pothole	Beach Road	Low elevation height
39	D12-10	3+650	15					3.5	16.0	56.0	Major pothole	Beach Road	Low elevation height

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July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
40	D12-11	3+700	16	7.5	8.6	64.5	Exposed base course(water pond)					Beach Road (Post Office Int)	Low elevation height (Necessary drainage to sea)
41	D12-11	3+750	16	4.0	19.0	76.0	Exposed base course(water pond)					Beach Road	Low elevation height (Necessary drainage to sea)
42	D12-11	3+800	16	5.0	93.0	465.0	Exposed base course(water pond)					Beach Road	Low elevation height (Necessary drainage to sea)
43	D12-12	3+700	16	1.8	2.0	3.6	Major pothole					Beach Road	Low elevation height
44	D12-12	3+700	16	2.0	2.0	4.0	Major pothole					Beach Road	Low elevation height
45	D12-13	3+700	16	2.0	3.0	6.0	Major pothole					Beach Road	Low elevation height
46	D12-14	3+700	16	1.5	1.5	2.3	Major pothole					Beach Road (Post Office)	Low elevation height
47	D12-15	3+700	16	3.0	23.0	69.0	Major pothole					Beach Road	Low elevation height
48	D12-16	3+700	16	6.0	11.5	69.0	Exposed base course					Beach Road (Post Office)	Low elevation height
49	D13-1	3+700	16	1.5	1.5	2.3	Major pothole					Town Road (Bus stop)	Low speed by heavy vehicle
50	D13-2	3+700	16	1.0	1.1	1.1	Major pothole					Town Road (Bus stop)	Low speed by heavy vehicle
51	D13-3	3+700	16					2.8	2.9	8.1	Major pothole	Town Road (Bus stop)	Low speed by heavy vehicle
52	D13-4	3+700	16	2.0	2.0	4.0	Major pothole					Town Road	Low elevation height
53	D13-4	3+700	16	2.0	2.0	4.0	Major pothole					Town Road	Low elevation height
54	D13-4	3+700	16	2.0	2.0	4.0	Major pothole					Town Road	Low elevation height
55	D13-4	3+700	16	2.0	2.0	4.0	Major pothole					Town Road	Low elevation height
56	D14	3+750	16	2.0	2.0	4.0	Major pothole					Town Road	Low elevation height
57	D15-1	3+800	16	8.3	9.0	74.7	Exposed base course -Full Width					Town Road	Necessary proper drainage to sea
58	D15-2	3+850	15	3.7	20.0	74.0	Major pothole					Town Road (YSJ Trading)	Necessary proper drainage to sea
59	D15-3	3+900	15	8.3	63.0	522.9	Exposed base course -Full Width					Town Road (More Stationery)	Necessary proper drainage to sea
60	D16	4+100	15	13.0	40.0	520.0	Exposed base course -Full Width					Town Road (Town Police Stn Int)	Necessary proper drainage to sea
60	D16-2	4+100	15		182.0		proposed line drain		182.0		proposed line drain	Town Road (Town Police Stn Int)	
62	D17-2	4+100	21	0.3	0.3	0.1	Pothole					Town Road	
63	D17-3	4+100	21					1.0	1.0	1.0	Major pothole	Town Road	
64	D17-4	4+100	21	0.3	0.3	0.1	Pothole					Town Road	
65	D18	3+850	21					2.0	2.0	4.0	Major pothole	Town Road (Yang Xing Store)	
66	D19-1	3+750	20	4.0	13.0	52.0	Major pothole					Town Road (Post Office Is)	Low speed by heavy vehicle
67	D19-2	3+750	20	2.0	2.0	4.0	Major pothole					Town Road (Post Office Is)	Low speed by heavy vehicle
68	D40-1			1.1	1.1	1.2	Major pothole					Boram Road	
69	D40-2			1.1	1.1	1.2	Major pothole					Boram Road	
70	D40-3			1.1	1.1	1.2	Major pothole					Boram Road	
71	D40-4			1.1	1.1	1.2	Major pothole					Boram Road	
72	D40-5			1.1	1.1	1.2	Major pothole					Boram Road	
73	D40-6			1.1	1.1	1.2	Major pothole					Boram Road	
74	D40-7			1.1	1.1	1.2	Major pothole					Boram Road	
75	D40-8			1.1	1.1	1.2	Major pothole					Boram Road	
76	D40-9			1.1	1.1	1.2	Major pothole					Boram Road	
77	D40-10			1.1	1.1	1.2	Major pothole					Boram Road	
78	D40-11			1.1	1.1	1.2	Major pothole					Boram Road	
79	D41-1			4.3	14.0	60.2	Exposed base course -Full Width					Boram Road	

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July. 2017

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80	D41-2							1.0	1.0	1.0	Major pothole	Boram Road	
81	D41-3							1.0	1.0	1.0	Major pothole	Boram Road	
82	D41-4							1.0	1.0	1.0	Major pothole	Boram Road	
83	D41-5							1.0	1.0	1.0	Major pothole	Boram Road	
84	D41-6							5.0	5.5	27.5	Exposed base course	Boram Road	
85	D41-7							6.0	50.0	300.0	Exposed base course	Boram Road	
86	D41-8							1.0	1.0	1.0	Major pothole	Boram Road	
87	D41-9							1.0	1.0	1.0	Major pothole	Boram Road	
88	D41-10							1.0	1.0	1.0	Major pothole	Boram Road	
89	D41-11							1.0	1.0	1.0	Major pothole	Boram Road	
90	D41-12							1.0	1.0	1.0	Major pothole	Boram Road	
91	D41-13							1.0	1.0	1.0	Major pothole	Boram Road	
92	D41-14							1.0	1.0	1.0	Major pothole	Boram Road	
93	D41-15							1.0	1.0	1.0	Major pothole	Boram Road	
94	D41-16								200.0		Propose Line Drain	Boram Road	
95	D42-1							2.0	3.0	6.0	Major pothole	Boram Road	
96	D42-2							1.0	16.0	16.0	Shoulder crack	Boram Road	
97	D43-1			1.0	1.0	1.0	Major pothole					Boram Road	
98	D43-2			1.0	1.0	1.0	Major pothole					Boram Road	
99	D43-3			1.0	1.0	1.0	Major pothole					Boram Road	
100	D43-4			1.0	1.0	1.0	Major pothole					Boram Road	
101	D43-5			1.0	1.0	1.0	Major pothole					Boram Road	
102	D43-6			1.0	1.0	1.0	Major pothole					Boram Road	
103	D43-7			1.0	1.0	1.0	Major pothole					Boram Road	
104	D43-8			1.0	1.0	1.0	Major pothole					Boram Road	
105	D43-9			1.0	1.0	1.0	Major pothole					Boram Road	
106	D43-10			1.0	1.0	1.0	Major pothole					Boram Road	
107	D43-11			1.0	1.0	1.0	Major pothole					Boram Road	
108	D44-1			1.0	1.0	1.0	Major pothole					Boram Road	
109	D44-2			1.0	1.0	1.0	Major pothole					Boram Road	
110	D44-3			1.0	1.0	1.0	Major pothole					Boram Road	
111	D44-4			1.0	1.0	1.0	Major pothole					Boram Road	
112	D44-5			1.0	1.0	1.0	Major pothole					Boram Road	
113	D44-6			1.0	1.0	1.0	Major pothole					Boram Road	
114	D44-7			1.0	1.0	1.0	Major pothole					Boram Road	
115	D44-8			1.0	1.0	1.0	Major pothole					Boram Road	
116	D45-1			1.0	1.0	1.0	Major pothole					Boram Road	
117	D45-2			1.0	1.0	1.0	Major pothole					Boram Road	
118	D45-3			1.0	1.0	1.0	Major pothole					Boram Road	
119	D45-4			1.0	1.0	1.0	Major pothole					Boram Road	

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
120	D45-5			1.0	1.0	1.0	Major pothole					Boram Road	
121	D45-6			1.0	1.0	1.0	Major pothole					Boram Road	
122	D45-7			1.0	1.0	1.0	Major pothole					Boram Road	
123	D45-8			1.0	1.0	1.0	Major pothole					Boram Road	
124	D45-9			1.0	1.0	1.0	Major pothole					Boram Road	
125	D45-10			1.0	1.0	1.0	Major pothole					Boram Road	
126	D46			8.0	6.5	52.0	Exposed base course -Full Width					Boram Road	
127	D47			1.0	1.0	1.0	Major pothole					Wirui Road	
128	D48			1.0	1.0	1.0	Major pothole					Wirui Road	
129	D49			1.0	1.0	1.0	Major pothole					Wirui Road	
130	D50			1.0	2.0	2.0	Major pothole					Wirui Road	
131	D50-1			2.0	17.0	34.0	Major potholes					Wirui Road	
132	D50-2			1.0	1.0	1.0	Major pothole					Wirui Road	
133	D50-3			1.0	1.0	1.0	Major pothole					Wirui Road	
134	D50-4			1.0	1.0	1.0	Major pothole					Wirui Road	
135	D50-5			1.0	1.0	1.0	Major pothole					Wirui Road	
136	D50-6			1.0	1.0	1.0	Major pothole					Wirui Road	
137	D51-1			1.0	19.0	19.0	Shoulder Crack					Wirui Road	
138	D51-2			1.0	4.0	4.0	Major pothole					Wirui Road	
139	D51-3			1.0	3.0	3.0	Major pothole	1.0	10.0	10.0	Depression	Wirui Road	
140	D51-4			1.0	4.0	4.0	Major pothole					Wirui Road	
141	D51-5			1.0	1.5	1.5	Major pothole					Wirui Road	
142	D51-6							1.0	1.0	1.0	Major pothole	Wirui Road	
143	D52			1.0	2.0	2.0	Major pothole					Wirui Road	
144	D53-1			1.0	200.0	200.0	Shoulder Crack					Wirui Road	
145	D53-2			1.0	1.0	1.0	Major pothole					Wirui Road	
146	D53-3			1.0	1.0	1.0	Major pothole					Wirui Road	
147	D53-4			1.0	1.0	1.0	Major pothole					Wirui Road	
148	D53-5			1.0	1.0	1.0	Major pothole					Wirui Road	
149	D53-6			1.0	1.0	1.0	Major pothole					Wirui Road	
150	D53-7			1.0	1.0	1.0	Major pothole					Wirui Road	
151	D53-8			1.0	1.0	1.0	Major pothole					Wirui Road	
152	D53-9			1.0	1.0	1.0	Major pothole					Wirui Road	
153	D53-10			1.0	1.0	1.0	Major pothole					Wirui Road	
154	D53-11			1.0	1.0	1.0	Major pothole					Wirui Road	
155	D53-12							1.0	1.0	1.0	Major pothole	Wirui Road	
156	D53-13							1.0	1.0	1.0	Major pothole	Wirui Road	
157	D53-14							1.0	1.0	1.0	Major pothole	Wirui Road	
158	D53-15							1.0	1.0	1.0	Major pothole	Wirui Road	
159	D53-16							1.0	1.0	1.0	Major pothole	Wirui Road	

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
160	D53-17							1.0	1.0	1.0	Major pothole	Wirui Road	
161	D53-18							1.0	1.0	1.0	Major pothole	Wirui Road	
162	D53-19							1.0	1.0	1.0	Major pothole	Wirui Road	
163	D53-20							1.0	1.0	1.0	Major pothole	Wirui Road	
164	D53-21							1.0	1.0	1.0	Major pothole	Wirui Road	
165	D54-1			1.5	25.0	37.5	Exposed base course					Wirui Road	
166	D54-2			8.0	13.0	104.0	Exposed base course -Full Width					Wirui Road	
167	D54-3			16.5	18.0	297.0	Exposed base course -Full Width					Wirui Road	
168	D54-4			7.0	22.0	154.0	Exposed base course -Full Width					Wirui Road	
169	D55			5.5	7.0	38.5	Exposed base course -Full Width					Papindo Road	
170	D56			1.0	4.0	4.0	Major pothole					Papindo Road	
171	D57			1.0	41.0	41.0	Pothole					Papindo Road	
172	D58			1.0	1.0	1.0	Major pothole					Papindo Road	
173	D59			1.0	1.0	1.0	Major pothole					Papindo Road	
174	D60			1.0	1.0	1.0	Major pothole					Papindo Road	
175	D61			1.0	1.0	1.0	Major pothole					Papindo Road	
176	D62			1.0	1.0	1.0	Major pothole					Papindo Road	
177	D63			1.0	1.0	1.0	Major pothole					Papindo Road	
178	D64			1.0	1.0	1.0	Major pothole					Papindo Road	
179	D65			1.0	1.0	1.0	Major pothole					Papindo Road	
180	D66			1.0	1.0	1.0	Major pothole					Papindo Road	
181	D67			1.0	1.0	1.0	Major pothole					Papindo Road	
182	D68			1.0	1.0	1.0	Major pothole					Papindo Road	
183	D69			1.0	1.0	1.0	Major pothole					Papindo Road	
184	D70			1.0	1.0	1.0	Major pothole					Papindo Road	
185	D71			1.0	1.0	1.0	Major pothole					Papindo Road	
186	D72			1.0	1.0	1.0	Major pothole					Papindo Road	
187	D73			1.0	1.0	1.0	Major pothole					Papindo Road	
188	D74			1.0	1.0	1.0	Major pothole					Papindo Road	
189	D75			1.0	1.0	1.0	Major pothole					Papindo Road	
190	D76			1.0	1.0	1.0	Major pothole					Papindo Road	
191	D77			1.0	1.0	1.0	Major pothole	1.0	1.0	1.0	Major pothole	Papindo Road	
192	D78							1.0	1.0	1.0	Major pothole	Papindo Road	
193	D79							1.0	1.0	1.0	Major pothole	Papindo Road	
194	D80							1.0	1.0	1.0	Major pothole	Papindo Road	
195	D81							1.0	1.0	1.0	Major pothole	Papindo Road	
196	D82							1.0	1.0	1.0	Major pothole	Papindo Road	
197	D83							1.0	1.0	1.0	Major pothole	Papindo Road	
198	D84							1.0	1.0	1.0	Major pothole	Papindo Road	
199	D85							1.0	1.0	1.0	Major pothole	Papindo Road	

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
200	D86							1.0	1.0	1.0	Major pothole	Papindo Road	
201	D87							1.0	1.0	1.0	Major pothole	Papindo Road	
202	D88							1.0	1.0	1.0	Major pothole	Papindo Road	
203	D89							1.0	1.0	1.0	Major pothole	Papindo Road	
204	D90							1.0	1.0	1.0	Major pothole	Papindo Road	
205	D91							1.0	1.0	1.0	Major pothole	Papindo Road	
206	D92							1.0	1.0	1.0	Major pothole	Papindo Road	
207	D93							1.0	1.0	1.0	Major pothole	Papindo Road	
208	D94							1.0	1.0	1.0	Major pothole	Papindo Road	
209	D95							1.0	1.0	1.0	Major pothole	Papindo Road	
210	D96							1.0	1.0	1.0	Major pothole	Papindo Road	
211	D97			1.0	1.0	1.0	Major pothole					Papindo Road	
212	D98			1.0	1.0	1.0	Major pothole					Papindo Road	
213	D99			1.0	1.0	1.0	Major pothole					Papindo Road	
214	D100			1.0	1.0	1.0	Major pothole					Papindo Road	
215	D101			1.0	1.0	1.0	Major pothole					Papindo Road	
216	D102			1.0	1.0	1.0	Major pothole					Papindo Road	
217	D103			1.0	1.0	1.0	Major pothole					Papindo Road	
218	D104							1.0	1.0	1.0	Major pothole	Papindo Road	
219	D105							1.0	1.0	1.0	Major pothole	Papindo Road	
220	D106							1.0	1.0	1.0	Major pothole	Papindo Road	
221	D107							1.0	1.0	1.0	Major pothole	Papindo Road	
222	D108							1.0	1.0	1.0	Major pothole	Papindo Road	
223	D109							1.0	1.0	1.0	Major pothole	Papindo Road	
224	D110							1.0	1.0	1.0	Major pothole	Papindo Road	
225	D111				300.0		Propose Line Drain		300.0		Propose Line Drain	Papindo Road	
226	D112							1.0	1.0	1.0	Major pothole	Papindo Road	
227	D113							1.0	1.0	1.0	Major pothole	Papindo Road	
228	D114							1.0	1.0	1.0	Major pothole	Papindo Road	
229	D115							1.0	1.0	1.0	Major pothole	Papindo Road	
230	D116							1.0	1.0	1.0	Major pothole	Papindo Road	
231	D117							1.0	1.0	1.0	Major pothole	Papindo Road	
232	D118							1.0	1.0	1.0	Major pothole	Papindo Road	
233	D119			1.0	1.0	1.0	Major pothole					Papindo Road	
234	D120			1.0	1.0	1.0	Major pothole					Papindo Road	
235	D121			1.0	1.0	1.0	Major pothole					Papindo Road	
236	D122			1.0	1.0	1.0	Major pothole					Papindo Road	
237	D123			1.0	1.0	1.0	Major pothole					Papindo Road	
238	D124			1.0	1.0	1.0	Major pothole					Papindo Road	
239	D125			1.0	1.0	1.0	Major pothole					Papindo Road	

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
240	D126			1.0	1.0	1.0	Major pothole					Papindo Road	
241	D127							1.0	1.0	1.0	Major pothole	Papindo Road	
242	D128							1.0	1.0	1.0	Major pothole	Papindo Road	
243	D129							1.0	1.0	1.0	Major pothole	Papindo Road	
244	D130							1.0	1.0	1.0	Major pothole	Papindo Road	
245	D131							1.0	1.0	1.0	Major pothole	Papindo Road	
246	D132							1.0	1.0	1.0	Major pothole	Papindo Road	
247	D133							1.0	1.0	1.0	Major pothole	Papindo Road	
248	D134							1.0	1.0	1.0	Major pothole	Papindo Road	
249	D135			9.0	73.0	657.0	Exposed base course -Full Width					Papindo Road	
250	D136			1.0	1.0	1.0	Major pothole					Papindo Road	
251	D137			1.0	1.0	1.0	Major pothole					Papindo Road	
252	D138			1.0	1.0	1.0	Major pothole					Papindo Road	
253	D139			1.0	1.0	1.0	Major pothole					Papindo Road	
254	D140			1.0	1.0	1.0	Major pothole					Papindo Road	
255	D141			1.0	1.0	1.0	Major pothole					Papindo Road	
256	D142			1.0	1.0	1.0	Major pothole					Papindo Road	
257	D143			1.0	1.0	1.0	Major pothole					Papindo Road	
258	D144			1.0	1.0	1.0	Major pothole					Papindo Road	
259	D145			1.0	1.0	1.0	Major pothole					Papindo Road	
260	D146							1.0	1.0	1.0	Major pothole	Papindo Road	
261	D147							1.0	1.0	1.0	Major pothole	Papindo Road	
262	D148							1.0	1.0	1.0	Major pothole	Papindo Road	
263	D149							1.0	1.0	1.0	Major pothole	Papindo Road	
264	D150							1.0	1.0	1.0	Major pothole	Papindo Road	
265	D151							1.0	1.0	1.0	Major pothole	Papindo Road	
266	D152							1.0	1.0	1.0	Major pothole	Papindo Road	
267	D153							1.0	1.0	1.0	Major pothole	Papindo Road	
268	D154							1.0	1.0	1.0	Major pothole	Papindo Road	
269	D155-1							1.0	1.0	1.0	Major pothole	Papindo Road	
270	D155-2							1.0	1.0	1.0	Major pothole	Papindo Road	
271	D155-3							1.0	1.0	1.0	Major pothole	Papindo Road	
272	D155-4							1.0	1.0	1.0	Major pothole	Papindo Road	
273	D155-5							1.0	1.0	1.0	Major pothole	Papindo Road	
274	D155-6							1.0	1.0	1.0	Major pothole	Papindo Road	
275	D155-7							1.0	1.0	1.0	Major pothole	Papindo Road	
276	D155-8							1.0	1.0	1.0	Major pothole	Papindo Road	
277	D155-9							3.5	9.0	31.5	Exposed base course	Papindo Road	
278	D155-10			14.0	49.0	686.0	Exposed base course -Full Width					Papindo Road	

Table-1 Outline of present major damaged location on Town Road in Wewak

July. 2017

No.	ID No.	Station (By GPS)	Natural Surface Elv. (m)	LHS				RHS				Location	Remarks (Likely cause for defect)
				Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged	Width of damaged (m)	Length of damaged (m)	Area of damaged (m2)	Sorts of damaged		
Total						5,177.1	m2			649.7	m2		
						Ave t =	0.25m	Grand total		5,826.8	m2	1456.7	m3
								Total Pavement Area		60,200.0	m2		
				LHS		RHS		Major damaged ratio		9.68%			
				4,637.5		537.4		Likely due to major deteriorated reasons		5,175	m2	1293.7	m3
				539.5		112.3		Likely due to general deteriorated reasons		652	m2	163.0	m3
				482.0	Line drain	682.0		Proposed line drain		1,164	m (or more)		

Note:

1: Investigation was carried out both 3rd and 4th July 2017 respectively. The results can be referred to attached photos.

2: Color for 4th July's results

3: Defects (red color) due to likely major deteriorated reasons if the details will be required, further investigation will be required.

4. Defects (dark yellow color) due to likely general deteriorated reasons

5: Natural surface elevation height was surveyed by portable GPS so it is not much accuracy but reference only.

6: If the cause of defects will not be solved with repair works, it may be defect soon with the same reason. For instance, proper drainage system will be required with pavement repair works somewhere, unless otherwise it would be depreciated the repaired pavement due to water saturation.

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D19-2	3 + 750	0.0	5.50	Post Office Road
3.75 km from DoW Office			0.05 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	2.75	Right hand side towards East (Ocean)	Existing Lane width (m)	2.75
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	2.0

Post Office Road
- Exisiting repair portion is cement concrete pavement so remain as it is and be patching loose surface only.

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D19-1	3 + 750	0.0	5.50	Post Office Road
3.75 km from DoW Office			0.05 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	2.75	Left hand side towards East (Ocean)	Existing Lane width (m)	2.75
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	4.0		The length of Defects (m)	13.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D18	3 + 850	0.0	7.00	Post Office Road
3.85 km from DoW Office			0.15 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	3.50	Left hand side towards East (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	2.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D17-4	4 + 100	0.0	7.00	Post Office Road
4.10 km from DoW Office			0.4 km from Post Office	

Right hand side towards East (Ocean)	Existing Lane width (m)	3.50	Right hand side towards East (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Pot-hole		Type of Defects	Pot-hole
	The width of Defects (m)	0.3		The length of Defects (m)	0.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D17-3	4 + 100	0.0	7.00	Post Office Road
4.10 km from DoW Office			0.4 km from Post Office	

Right hand side towards East (Ocean)	Existing Lane width (m)	3.50	Right hand side towards East (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D17-2	4 + 100	0.0	8.00	Post Office Road -Refer to other photos (Drainage)
4.10 km from DoW Office			0.5 km from Post Office	

Towards West (Ocean)	Existing Lane width (m)	4.00	Towards West (Ocean)	Existing Lane width (m)	4.00
	Type of Defects	Pot-hole		Type of Defects	Pot-hole
	The width of Defects (m)	0.3		The length of Defects (m)	0.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D17~1	4 + 100	0.0	8.00	Post Office Road ~Refer to other photos (Drainage)
4.10 km from DoW Office			0.5 km from Post Office	

Towards West (Ocean)	Existing Lane width (m)	4.00	Towards West (Ocean)	Existing Lane width (m)	4.00
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	0.5		The length of Defects (m)	0.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D16	4 + 100	0.0	13.00	Post Office Road ~Refer to other photos (Drainage)
4.10 km from DoW Office			0.5 km from Post Office	

Towards West (Ocean)	Existing Lane width (m)	6.50	Towards West (Ocean)	Existing Lane width (m)	6.50
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	13.0		The length of Defects (m)	40.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15~3	4 + 0	0.0	8.30	Post Office Road
4.00 km from DoW Office			0.4 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	4.15	Left hand side towards East (Ocean)	Existing Lane width (m)	4.15
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	8.3		The length of Defects (m)	63.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15~3	3 + 950	0.0	7.00	Post Office Road
3.95 km from DoW Office			0.35 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	3.50	Left hand side towards East (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	8.3		The length of Defects (m)	63.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15~3	3 + 900	0.0	8.30	Post Office Road
3.90 km from DoW Office			0.3 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	4.15	Left hand side towards East (Ocean)	Existing Lane width (m)	4.15
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	8.3		The length of Defects (m)	63.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15~2	3 + 850	0.0	7.00	Post Office Road
3.85 km from DoW Office			0.25 km from Post Office	

Left hand side towards West (Ocean)	Existing Lane width (m)	3.50	Left hand side towards West (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	3.7		The length of Defects (m)	20.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15-1	3 + 800	0.0	7.00	Post Office Road

3.80 km from DoW Office | 0.2 km from Post Office

Left hand side towards West (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	8.3		The length of Defects (m)	9.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D14	3 + 750	0.0	7.00	Post Office Road

3.75 km from DoW Office | 0.15 km from Post Office

Left hand side towards Westt (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	2.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D13-4	3 + 700	0.0	7.00	Post Office Road

3.70 km from DoW Office | 0.1 km from Post Office

Left hand side towards Westt (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2 @4		The length of Defects (m)	2.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D13-3	3 + 700	0.0	7.00	Post Office Road

3.70 km from DoW Office | 0.1 km from Post Office

Left hand side towards Westt (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.8		The length of Defects (m)	2.9

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D13-2	3 + 700	0.0	7.00	Post Office Road

3.70 km from DoW Office | 0.1 km from Post Office

Left hand side towards Westt (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.1

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D13-1	3 + 700	0.0	7.00	Post Office Road

3.70 km from DoW Office | 0.1 km from Post Office

Left hand side towards Westt (Ocean)			Right hand side towards West (Ocean)		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.5		The length of Defects (m)	1.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~16	3 + 700	0.0	7.00	Post Office Road

3.70 km from DoW Office　　0.1 km from Post Office

Right hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Exposed base		Type of Defects	Exposedbase
	The width of Defects (m)	6.0		The length of Defects (m)	11.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~15	3 + 700	0.0	7.00	Beach Road

3.70 km from DoW Office　　0.1 km from Post Office

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	6.0		The length of Defects (m)	23.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~14	3 + 800	0.0	7.00	Beach Road

3.80 km from DoW Office　　0 km from Post Office

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.5		The length of Defects (m)	1.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~13	3 + 700	0.0	7.00	Beach Road

3.70 km from DoW Office　　0.1 km from Post Office

Left hand side towards South	Existing Lane width (m)	3.50	Left hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	3.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~12	3 + 650	0.0	7.00	Beach Road

3.65 km from DoW Office　　0.15 km from Post Office

Left hand side towards South	Existing Lane width (m)	3.50	Left hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.8 2.0		The length of Defects (m)	2.0 2.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~11	3 + 700	0.0	7.00	Beach Road

3.70 km from DoW Office　　0.1 km from Post Office

Left hand side towards South	Existing Lane width (m)	3.50	Left hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Exposed base (Water pond)		Type of Defects	Exposed base (water pond)
	The width of Defects (m)	7.5 4.0 5.0		The length of Defects (m)	8.6 19.0 93.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~10	3 + 600	0.0	7.00	Beach Road
3.60 km from DoW Office			0.2 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	3.5		The length of Defects (m)	16.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~9	3 + 550	0.0	7.00	Beach Road
3.55 km from DoW Office			0.25 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.5		The length of Defects (m)	2.8

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~8	3 + 500	0.0	7.00	Beach Road
3.50 km from DoW Office			0.3 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	3.5		The length of Defects (m)	16.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~7	3 + 500	0.0	7.00	Beach Road
3.50 km from DoW Office			0.3 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	3.0		The length of Defects (m)	3.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~6	3 + 400	0.0	7.00	Beach Road
3.40 km from DoW Office			0.4 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~5	3 + 350	0.0	7.00	Beach Road
3.35 km from DoW Office			0.45 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.5		The length of Defects (m)	5.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~4	3 + 300	0.0	7.00	Beach Road
3.30 km from DoW Office			0.5 km from Post Office	

Right hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~3	3 + 300	0.0	7.00	Beach Road
3.30 km from DoW Office			0.5 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~2	3 + 100	0.0	7.00	Beach Road
3.10 km from DoW Office			0.7 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.5		The length of Defects (m)	14.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D12~1	3 + 50	0.0	7.00	Beach Road
3.05 km from DoW Office			0.75 km from Post Office	

Left hand side towards South	Existing Lane width (m)	3.50	Right hand side towards South	Existing Lane width (m)	3.50
	Type of Defects	Exposed base		Type of Defects	Exposed base
	The width of Defects (m)	9.0		The length of Defects (m)	33.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11~13	1 + 670	0.0	7.00	Beach Road
1.67 km from DoW Office			2.13 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Pot-hole		Type of Defects	Pot-hole
	The width of Defects (m)	0.3		The length of Defects (m)	0.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11~12	1 + 650	0.0	7.00	Beach Road
1.65 km from DoW Office			2.15 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-11	1 + 600	0.0	7.00	Beach Road
1.60 km from DoW Office			2.2 km from Post Office	

Left hand side towards East		Right hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole	
The width of Defects (m)	1.0	The length of Defects (m)	1.0	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-10	1 + 550	0.0	7.00	Beach Road
1.55 km from DoW Office			2.25 km from Post Office	

Left hand side towards East		Right hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Pot-hole	Type of Defects	Pot-hole	
The width of Defects (m)	0.3	The length of Defects (m)	0.3	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-9	1 + 550	0.0	7.00	Beach Road
1.55 km from DoW Office			2.25 km from Post Office	

Left hand side towards East		Right hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole	
The width of Defects (m)	2.0	The length of Defects (m)	3.0	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-8	1 + 530	0.0	7.00	Beach Road
1.53 km from DoW Office			2.27 km from Post Office	

Left hand side towards East		Left hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Desposed base	Type of Defects	Desposed base	
The width of Defects (m)	4.0	The length of Defects (m)	26.0	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-8	1 + 520	0.0	7.00	Beach Road
1.52 km from DoW Office			2.28 km from Post Office	

Left hand side towards East		Right hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Desposed base	Type of Defects	Desposed base	
The width of Defects (m)	4.0	The length of Defects (m)	26.0	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-7	1 + 500	0.0	7.00	Beach Road
1.50 km from DoW Office			2.3 km from Post Office	

Left hand side towards East		Right hand side towards East		
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50	
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole	
The width of Defects (m)	0.3	The length of Defects (m)	0.3	

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-6	1 + 500	0.0	7.00	Beach Road
1.50 km from DoW Office			2.3 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	0.5		The length of Defects (m)	0.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-5	1 + 480	0.0	7.00	Beach Road
1.48 km from DoW Office			2.32 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	0.7		The length of Defects (m)	5.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-4	1 + 470	0.0	7.00	Beach Road
1.47 km from DoW Office			2.33 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.4		The length of Defects (m)	1.6

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-3	1 + 450	0.0	7.00	Beach Road
1.45 km from DoW Office			2.35 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-2	1 + 440	0.0	7.00	Beach Road
1.44 km from DoW Office			2.36 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Pot-hole		Type of Defects	Pot-hole
	The width of Defects (m)	0.3		The length of Defects (m)	0.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D11-1	1 + 440	0.0	7.00	Beach Road
1.44 km from DoW Office			2.36 km from Post Office	

Left hand side towards East	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D10	1 + 350	0.0	7.00	Beach Road
1.35 km from DoW Office			2.45 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	2.3	The length of Defects (m)	3.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D9	1 + 340	0.0	7.00	Beach Road
1.34 km from DoW Office			2.46 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Pot-hole	Type of Defects	Pot-hole
The width of Defects (m)	0.5	The length of Defects (m)	0.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D8	1 + 320	0.0	7.00	Beach Road
1.32 km from DoW Office			2.48 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.2	The length of Defects (m)	1.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D7	1 + 310	0.0	7.00	Beach Road
1.31 km from DoW Office			2.49 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Pot-hole	Type of Defects	Pot-hole
The width of Defects (m)	0.3	The length of Defects (m)	0.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D6	1 + 300	0.0	7.00	Beach Road
1.30 km from DoW Office			2.5 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Crocodile cracks	Type of Defects	Crocodile cracks
The width of Defects (m)	1.3	The length of Defects (m)	3.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D5	1 + 270	0.0	7.00	Beach Road
1.27 km from DoW Office			2.53 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	0.5	The length of Defects (m)	0.7

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D4	1 + 250	0.0	8.80	Beach Road
1.25 km from DoW Office			2.55 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	4.40	Existing Lane width (m)	4.40
Type of Defects	Exposed base Major pot-hole	Type of Defects	Exposed base Major pot-hole
The width of Defects (m)	8.8	The length of Defects (m)	9.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D3	1 + 220	0.0	7.00	Beach Road
1.22 km from DoW Office			2.58 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.0	The length of Defects (m)	1.2

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D2-3 D2-4	1 + 200	0.0	7.00	Beach Road
1.20 km from DoW Office			2.6 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	3.0 2.5	The length of Defects (m)	4.5 3.5

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D2-1 D2-2	1 + 200	0.0	7.00	Beach Road
1.20 km from DoW Office			2.6 km from Post Office	

Left hand side towards South		Right hand side towards South	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.8 1.2	The length of Defects (m)	2.5 1.3

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D1-3 D1-4	1 + 140	0.0	7.00	Beach Road
1.14 km from DoW Office			2.66 km from Post Office	

Left hand side towards East		Right hand side towards East	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Exposed base Major pot-hole	Type of Defects	Exposed base Major pot-hole
The width of Defects (m)	8.0 2.0	The length of Defects (m)	8.0 4.0

Existing Road Surface Condition on the Road

Date : July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D1-1 D1-2	1 + 120	0.0	8.00	Carltex Bridge
1.12 km from DoW Office			2.68 km from Post Office	

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	4.00	Existing Lane width (m)	4.00
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.5 2.5	The length of Defects (m)	2.0 7.5

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D40-8		0.0	6.60	Boram Road
km from DoW Office			3.9 km from Post Office	

Left hand side towards East (Ocean)	Existing Lane width (m)	3.30	Right hand side towards West	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.1		The length of Defects (m)	1.1

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D41-1		0.0	6.60	Boram Road
km from DoW Office			km from Post Office	

Left hand side towards West	Existing Lane width (m)	3.30	Left hand side towards West	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	4.3		The length of Defects (m)	14.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D41-6	3 + 850	0.0	6.60	Boram Road
km from DoW Office			km from Post Office	

Left hand side towards West	Existing Lane width (m)	3.30	Right hand side towards West	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	5.0		The length of Defects (m)	5.5

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D41-7		0.0	7.00	Boram Road
km from DoW Office			km from Post Office	

Left hand side towards West	Existing Lane width (m)	3.50	Right hand side towards West	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	6.0		The length of Defects (m)	50.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D42-1		0.0	6.60	Boram Road
0.00 km from DoW Office			km from Post Office	

Right hand side towards East (Ocean)	Existing Lane width (m)	3.30	Right hand side towards West	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	3.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D43-1		0.0	6.60	Boram Road
km from DoW Office			km from Post Office	

Towards West (Ocean)	Existing Lane width (m)	3.30	Right hand side towards East	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	8.0		The length of Defects (m)	30.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D43-1			6.60	Boram Road

0.00 km from DoW Office | km from Post Office

Left hand side towards West	Existing Lane width (m)	3.30	Left hand side towards West	Existing Lane width (m)	3.30
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D44-1		0.0	7.00	Boram Road

0.00 km from DoW Office | km from Post Office

Left hand side towards West	Existing Lane width (m)	3.50	Left hand side towards East (Ocean)	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D44-8		0.0	7.00	Boram Road

0.00 km from DoW Office | km from Post Office

Left hand side towards East (Ocean)	Existing Lane width (m)	3.50	Right hand side towards East	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D45-1	+	0.0	8.00	Boram Road

0.00 km from DoW Office | km from Post Office

Left hand side towards West	Existing Lane width (m)	4.00	Right hand side towards West	Existing Lane width (m)	4.00
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	3.5		The length of Defects (m)	15.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D15-1		0.0	8.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West	Existing Lane width (m)	4.00	Right hand side towards West	Existing Lane width (m)	4.00
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	6.5		The length of Defects (m)	8.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D50		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West	Existing Lane width (m)	3.50	Right hand side towards West	Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	2.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D47		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.0	The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D50		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	2.0	The length of Defects (m)	17.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D51		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.0	The length of Defects (m)	19.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D51-3	3 + 800	0.0	7.00	Beach Road

3.80 km from DoW Office | 0 km from Post Office

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.0	The length of Defects (m)	3.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D51-4		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West		Left hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.0	The length of Defects (m)	4.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
d51-5		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West		Right hand side towards West	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	1.5	The length of Defects (m)	1.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D52		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West			Left hand side towards South		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	2.0		The length of Defects (m)	2.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D54-1		0.0	7.00	Wirui Road

km from DoW Office | km from Post Office

Left hand side towards West			Right hand side towards West		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.5		The length of Defects (m)	25.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D54-2	3 + 550	0.0	9.00	Wirui Road

3.55 km from DoW Office | 0.25 km from Post Office

Left hand side towards West			Right hand side towards West		
	Existing Lane width (m)	4.50		Existing Lane width (m)	4.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	8.0		The length of Defects (m)	13.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D128			7.00	Papindo Road

km from DoW Office | km from Post Office

Left hand side towards West			Right hand side towards South		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	1.0		The length of Defects (m)	4.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D135			9.00	Papindo Road

0.00 km from DoW Office | 3.8 km from Post Office

Left hand side towards West			Right hand side towards West		
	Existing Lane width (m)	4.50		Existing Lane width (m)	4.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	9.0		The length of Defects (m)	73.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D155-9		0.0	7.00	Papindo Road

km from DoW Office | km from Post Office

Left hand side towards West			Right hand side towards West		
	Existing Lane width (m)	3.50		Existing Lane width (m)	3.50
	Type of Defects	Major pot-hole		Type of Defects	Major pot-hole
	The width of Defects (m)	3.5		The length of Defects (m)	9.0

Existing Road Surface Condition on the Road

Date: July 2017

No	Station	Height of Embankment (m)	Total Carriage Width (m)	Remarks
D155-10		0.0	7.00	Papindo Road
0.00 km from DoW Office			km from Post Office	

Left hand side towards East		Right hand side towards East	
Existing Lane width (m)	3.50	Existing Lane width (m)	3.50
Type of Defects	Major pot-hole	Type of Defects	Major pot-hole
The width of Defects (m)	14.0	The length of Defects (m)	49.0

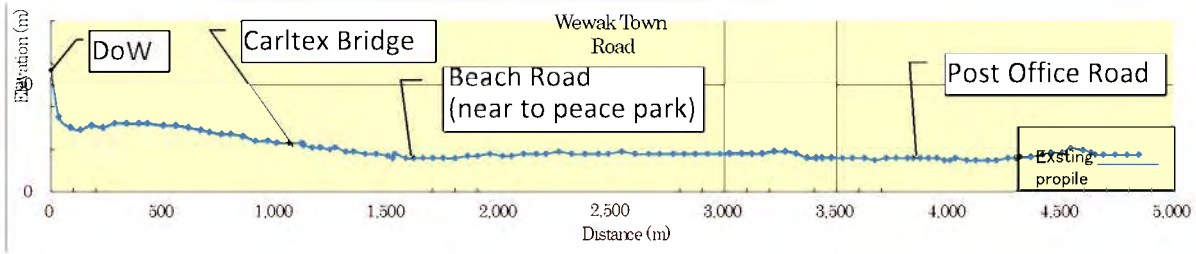
ATTACHMENT- 1 : Details Topographical Aspects due to GPS

Location Map of Investigation in Town Roads in Wawek
Carried out on 3rd and 4th July 2017

1／2：Plan View

The Profile of Investigation in Town Roads in Wawek (3rd July)

2／2：Longitudinal Profile



Monthly Reports for Kimbe–Kandian Missing Link, West New Britain Province

DEPARTMENT OF WORKS
West New Britain Provincial Office

KIMBE KANDRIAN MISSING LINK PROJECT

MONTHLY PROGRESS REPORT – 01/2017

MONTH of FEBRUARY 2017

CONSTRUCTION OF NEW ROAD SECTION BETWEEN KIMBE TOWN AND KANDRIAN STATION IN WEST NEWBRITAIN PROVINCE

TABLE OF CONTENTS

KIMBE KANDRIAND MISSING LINK PROJECT – CAPE ROUGES JUNCTION (AYANG BUS STOP) CH: 00.0KM TO VOL RIVER CH: 18.0KM

1. Brief information on the Project

1.1 Introduction

- Work is still progressing at CH: 14.5km towards Vol River CH: 18km – end of virgin forest.

1.2 Goals and Objectives

- Clearance/removal of fallen trees at CH: 15.5km to CH: 18km with grubbing and road formation works, about 2.5km.
- Gravelling works progressing at CH: 14.5km to CH: 15.5km, about 1.0km, plus another 2,5km to Vol River (end of virgin forest.
- Construction of Log Bridges at Vil and Vol River including five (5) small creeks between CH: 15.5km to CH: 18km.

1.3 Project Site Reference up date

- Project start point at Cape Rouge Junction (Ayang Bus Stop) –CH:00km to Neru River CH: 6.4km= 6.4km (complete with road base spot gravelling state and construction of 12 temporary log bridges)
- Neru river (camp site) to Start of Virgin forest – CH: 8.4km = 2.0km (complete with approx. **200mm depth sub grade** gravelling state)
- Start of Virgin forest CH: 8.4km to Akress River CH: 12.4km= 4 km (complete with approx. **200mm depth sub base** gravelling state)
- Total distance of new placed gravelling works completed to date from Neru River CH: 6.4km to CH: 14.5km = 8.1km (Kinim creek)
- Clearing and grubbing works is currently at estimate CH: 14.5 km from Ayang bus stop towards CH:18km -Vol River.
- Clearing /Grubbing and Road formation preparation at CH: 14.5km to CH: 15.5km = 1km
- Tree felling work completed from CH: 15.5km to CH:18km (Vol River)= 2.5km

2. Progress of Activities;

Activities as at 28th of February 2017

2.1) Material testing (gravel sources)

- No laboratory testing, but material used is grayish clay type which is the only and possible suitable road material for dry weather condition only and only source material with in the project site area.

2.2) Major Road Works

Total Project Estimate Distance:
Start: Cape Rouges Junction (Ayang Bus Stop) = CH: 0.00 km
End of Project: Mark School estimate CH: 26km

2nd Propose End Point: Vol River (current alignment to Link) =CH: 18km

Item	Activities	Total Estimate Quantities	Completed Quantities to Date	Estimate Quantities Remain	Estimate % Completed
No	Description	(km)	(km)	(km)	(%)
1	Trees Felling	18	18	0	100
2	Sub clearing (pilot tracking) by Dozer only	18	18	0	100
3	Clearing (removal of fallen trees) & Grubbing including Road formation preparation	18	15.5	2.5	86
4	Gravelling sub base layer	18	14.5	3.5	81
5	Survey –Propose Road Alignment Bruising	18	18	0	100
6	Temporary Log Bridges	43	29	14	67

NOTE: Sakarelam, a Logging company has cleared the existing logging road from Mark School end of Missing Link Project to Vol River joining the main existing road from Nute Log pond/base. *(Refer attach map)*

2.3) Survey and Design Works

- Require proper surveying on the new road construction alignment.
- Drawings – Propose Road Alignment; currently is eye sighted investigation only by Site Supervisor.

2.4) Submission of documents and report from project site

- Site Field Data for year 2016 attached in this month report.

3. Camp Site Establishment

- Project office/house at Cape Rouge beach will cease rental fee as of February 28th 2017. Site supervisor will accommodate at Neru camp wants the project office is completed.
- Neru camp site 2 – currently being used.

4. Administration Matters on Project Site as at 28/02/2017

4.1) Outstanding Claims yet to be settle.

- Gravel extracted – records kept (will submit after land mediation between Lamogai and Tarava (Kove) is settled, currently being negotiated and payment be released amounting to = **K 18,500.00**
- Trees used on log bridges – records kept (will submit after land mediation between Lamogai and Kove is settled, currently being negotiated and payment be released.
- Trees cut down and cleared for new road alignment construction work amounting to = **K 18,925.00**
- Last Rental fee payment for Month of January February 2017 for Engineer/Supervisor Office & Accommodation at Cape Rouges Beach amounting to = **K 2,000.00**
- Rental fee for Neru Camp site for January, February, March and April 2017 amounting to = **K 16,000.00**
- Machines allowance for operators – refer attached recorded sheet.

4.2) Bilateral Agreement –DoW & Land owner

- Neru Camp site 2- Payment for year 2016 will be released. Rental fee for this year beginning January is yet to be submitted for payment.
- Gravel, Tress and Logs royalties – Payment will be released.
- Office/ Accommodation House at Cape Rouges Beach – Will ceased rental payment as at 28th February 2017. Rental fee for January and February 2017 will be summited for payment.

4.3) RATIONS

- Officers to provide themselves, since they are receiving their C/Allowance.

4.4) MATERIALS

- Working materials – no more purchase of materials until further notice.
- Fuels – has advance supply to be use at this period
- Urgent requirement of materials or any financial matters arising at the project site will be advised by the Site Supervisor/Engineer for consideration.

4.5) INCIDENT/CASUALTIES ON SITE

- Serious Diseases – Nil
- Minor sickness like flu, malaria, etc., workmen do seek medication at Milimata Government Health Centre (Cape rouges)

4.6) EMPLOYEES WAGES AND CAMPING ALLOWANCE

- Wages and camping allowances for casuals & operators for this year 2017 was paid in advance to Pay No: 6, whilst the project is still ongoing till we complete the missing link as a project requirement and scheduled to April depending on the wet season.
- Over Time hours worked during this period of close down, are recorded for future proceedings.

5. Propose BOQ Item & Work Schedule

Note: Original Project Document – not available

KIMBE KANDRIAN MISSING LINK

WORK RESCHEDULE FOR JANUARY TO APRIL 2017

PROJECT NAME: Kimbe to Kandrian Missing Link Project in West New Britain Province
PROJECT No:
ROAD SECTION IDENTIFY: Between Akress River CH: 12.4km & Vol River CH: 18.0km
LENGTH (m) = 6000
ROAD WIDTH (m) = 7
CLEARANCE WIDTH (m) 30
GRAVEL DEPTH (m) = 0.2
AREA (m2) = 42000
VOLUME (m3) = 8400

Item	ACTIVITIES	JANUARY				FEBRUARY				MARCH				APRIL			
	WEEK	wk1	wk2	wk3	wk4	wk5	wk6	wk7	wk8	wk9	wk10	wk11	wk12	wk13	wk14	wk15	wk16	wk17
	WK ENDING DATE	8/1/17	15/1/17	22/1/17	29/1/17	5/2/17	12/2/17	19/2/17	26/2/17	5/3/17	12/3/17	19/3/17	26/3/17	2/4/17	9/4/17	16/4/17	23/4/17	30/4/17
1	Piolet Tracking					100% complete			date of completion									
2	Tree felling					100% complete			date of completion									
3	Clear & Grub including Road formation								86% complete				expected date of completion					
4	Earth Works Gravelling								81% complete								expected date of completion	
5	Log bridge Construction												67% complete				expected date of completion	

KIMBE KANDRIAN MISSING LINK PROJECT – 2016

PROJECT TITLE: NEW ROAD ALIGNMENT CONSTRUCTION WITH ASSOCIATED DRAINAGE WORKS FROM CAPE RUZES JUNCTION TO TAUNVIR VILLAGE INLAND KANDRIAN (23 KM) IN WEST NEW BRITAIN PROVINCE

BILL OF QUANTITIES

Item No.	Description	Unit	Qnty	Rate (K)	Amount (K)
GROUP 01 – GENERAL CLAUSES					
1.1	Allow for all expenses to conform with the Group 1 of the Specification including traffic control	LS	1	30,000.00	30,000.00
1.2	Safety Management Plan	LS	1	7,000.00	7,000.00
1.3	Environment Management Plan	LS	1	3,500.00	3,500.00
1.4	Quality Control Plan	LS	1	3,000.00	3,000.00
	SUBTOTAL GROUP 01				**43,500.00**
GROUP 02 – PRELIMINARY WORKS					
2.1	Mobilization	LS	1	70,000.00	70,000.00
2.2	Site Establishment	mth	16	5,000.00	80,000.00
2.3	Demobilisation	LS	1	60,000.00	60,000.00
2.4	Supply, erection and removal of Project Notice	No.	2	3,000.00	6,000.00
2.5	Purchase of new Project Vehicle (on site)	LS	1	200,000.00	200,000.00
	SUBTOTAL GROUP 02				**416,000.00**
GROUP 03 – CLEARING AND GRUBBING					
3.1	Heavy Clearing & Grubbing works including tree felling from Neru CH:6.5KM to Vol River CH: 18.KM.	km	18	14,000.00	252,000.00
	SUBTOTAL GROUP 03				**252,000.00**
GROUP 04 – EARTHWORKS					
4.1	Construct Road Formation including excavate, form and shape Table drain	km	12	19,000.00	228,000.00
4.2	Construct Offshoot drains (Prov. Qty)	m	2,000	20.00	40,000.00
4.3	Type D Excavation	m^3	5,000	120.00	600,000.00
4.4	Sub grade preparation including compaction	m^2	84,000	5.00	420,000.00
4.5	Subbase preparation including placing & compaction to 200mm thickness	m^3	16,800	30.00	504,000.00
	SUBTOTAL GROUP 05				**1,792,000.00**
GROUP 07 – DRAINAGE					1,288,000.00
7.1	Excavate Unlined Drain – Prov. Qty	m	2,000	40.00	80,000.00
7.2	Supply all materials and install 900mm dia culvert	m	190	3,000.00	570,000.00
7.3	Supply all materials and install 1200mm dia culvert (CMP)	m	160	3,500.00	560,000.00
7.4	Supply all materials and install 1800mm dia culvert (CMP)	m	90	4,000.00	360,000.00
7.5	Supply all materials and install 2200mm dia culvert (CMP)	m	100	4,500.00	450,000.00
7.6	Supply and Construct Type G Head wall to 900mm dia culvert (CMP)	No.	38	8,000.00	304,000.00
7.7	Supply and Construct Type G Head wall to 1200mm dia culvert (CMP)	No.	32	9,000.00	288,000.00
7.8	Supply and Construct Type G Head wall to 1800mm dia culvert (CMP)	No.	18	10,000.00	180,000.00
7.9	Supply and Construct Type G Head wall to 2200mm dia culvert (CMP)	No.	20	11,000.00	220,000.00
	SUBTOTAL GROUP 07				**4,300,000.00**
GROUP 18 – RIVER TRAINING AND LOG BRIDGE CONSTRUCTI					
18.1	Construction of temporary log bridges	No.	43	25,000.00	1,075,000.00
	SUBTOTAL GROUP 18				**1,075,000.00**
GROUP 19 – DAYWORKS					
19.1	Labour, General Labourer	hr	Rate only	4.00	
19.2	2x Dozer D6 or equivalent	hr	Rate only	410.00	
19.3	2x Grader 12H or equivalent	hr	Rate only	410.00	
19.4	2x Excavator 12 to 20 tonne or greater	hr	Rate only	390.00	
19.5	4x Tip Truck $10m^3$	hr	Rate only	280.00	
19.6	1x Drum Vibrating Roller	hr	Rate only	260.00	
19.7	1x Front End Loader	hr	Rate only	400.00	
19.8	1x Service Truck				
19.9	2x Supervisory vehicles				
19.10	Percentage to be added for materials expended on dayworks	25%	%–age only		
	Total Group 19				
PS	**Provisional Sum**				
PS 1	Contingency	PS1	1	300,000.00	300,000.00
PS 2	Additional Works	PS2	1	100,000.00	100,000.00
	Total Provisional Sum				**400,000.00**
	TOTAL FOR ALL GROUPS AND PROVISIONAL SUM				**8,278,500.00**
	10 % GST				**827,850.00**
	TOTAL CONTRACT AMOUNT				**9,106,350.00**

6. Site staffs and Equipment

KIMBE KANDRIAN MISSING LINK PROJECT – 2017

LIST OF OFFICERS ON SITE – 012th February 2017

SURVEY TEAM

No:	OFFICER	STATUS	PROFFESSIONS
1	MARTIN GALA	P/CASSUAL	CHAINMAN
2	ALOIS MAKSEN	T/CASSUAL	SURVEY CREW

CIVIL TEAM

	OFFICER	STATUS	PROFFESSIONS
3	SAMMY NASON	P/S	WORKS SUPERVISOR
4	GRAHAM GIGAN	P/CASSUAL	CIVIL CREW
5	JOE GOREA	P/CASSUAL	CIVIL CREW
6	JAMES YAMBO	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
7	NICK AIGAL	P/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
8	KEPAS LADUKU	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)

PTD TEAM

	OFFICER	STATUS	PROFFESIONS
9	JAMES PIUS	P/CASSUAL	MACHANIC (MOBILE WORKSHOP TRUCK)
10	JOE WAMUK	JICA	DRIVER-D/TRUCK
11	JOHN WAPI	JICA	DRIVER-D/TRUCK
12	ANTON KASPAR	JICA	DRIVER-D/TRUCK
13	JAUNO KISEMBO	JICA	DRIVER-D/TRUCK
14	ELIAS WANGI	JICA	OPS-EXCAVATOR
15	PETER DIDIWAI	JICA	OPS-DOZER
16	MICHAEL RAKA	JICA	OPS- DOZER
17	PAUL GAGAIAI	JICA	OPS- GRADER
18	JONAH KASEMSEM	JICA	OPS- F/END LOADER
19	NICK DIDI	JICA	OPS- ROLLER
20	VINCENT SALSAL	JICA	OPS-F/END LOADER

SITE EMPLOYMENT

	WORKMEN	DESIGNATION	PROFFESIONS
21	NOAH DAIMAS	PLO	LIASION OFFICER
22	JOHN GAVARI	TEMP LAB	BEACH HOUSE DAY SECU
23	NELSON HARRY	TEMP LAB	BEACH HOUSE NIGHT SECU
24	CHRIS BAKI	TEMP LAB	NERU CAMP NIGHT SECU
25	JOE LUGAR	TEMP LAB	NERU CAMP NIGHT SECU
26	JOHN WAGE	TEMP LAB	NERU CAMP DAY SECU
27	LEO WAGE	TEMP LAB	NERU CAMP DAY SECU
28	ROBERT KAMO	TEMP LAB	MACHINE SECU
29	MICHAEL SAURIO	TEMP LAB	MACHINE SECU
30	PETER AYANG	TEMP LAB	MACHINE SECU
31	JOE GAVARI	TEMP LAB	CIVIL CREW
32	SIONI THOMAS	TEMP LAB	CIVIL CREW
33	ALOIS AYANG	TEMP LAB	CHAIN SAW
34	BENARD ANIS	TEMP LAB	CHAIN SAW
35	JONATHAN	OPERATOR	CONTRACTOR -KCP
36	SEBA	MACHANIC	CONTRACTOR -KCP

PROJECT CLERK

37	SALAU MANDAU	P/CASSUAL	PRPJECT CLERK

SUMMARY

OFFICERS	No
1. PUBLIC SERVANT	1
2. MACHANICS CASSUAL	1
2. OPERATORS-KIMBE	11
3. PERMENANT CASSUALS – CIVIL	5
4. TEMPORARY CASSUALS -KIMBE	3
5. APPRENTICES	0
6. SITE EMPLOYMENT	14
7. KCP WORK MEN	2
TOTAL WORKMEN	**37**

KIMBE KANDRIAN MISSING LINK- 2017

MACHUNES CURRENTLY WORKING ON SITE

No:	TYPE	OPERATOR	REGISTRATION #	AGENT	BRAND	WEIGHT	LENGTH	WIDTH	HEIGHT
						(t)	(m)	(m)	(m)
1	Excavator	Elias Wangi	ZGT 568	PTD	Caterpillar 320D	20.21	8.6	3.2	4.3
2	Dozer	Peter Didiwai	ZGT 560	PTD	Caterpillar D6	20.25	6.4	3.3	3.3
3	Dozer	Michael Raka	ZGV 325	PTD	Caterpillar D8	23.5	6.4	3.3	3.3
4	Grader	Antony Uraliu	ZGT 571	PTD	Caterpillar 120K	14.35	10	2.6	3.3
5	Grader	Paul Gagaya	ZGT 572	PTD	Caterpillar 120K	14.35	10	2.6	3.3
6	Vib roller	Nick Didi	ZGT 580	PTD	Sakai SV512	13.8	6	2.4	2.9
7	F/End Loader	Vincent Salsal	ZGT 576	PTD	Kawasaki KCM70	13	7.6	2.8	3.4
8	Dump Truck	Joe Wamuk	ZGT 600	PTD	Isuzu CY25	25	8.5	2.5	3.1
9	Dump Truck	Anton Caspar	ZGT 601	PTD	Isuzu CY26	25	8.5	2.5	3.1
10	Dump Truck	John Wapi	ZGT 602	PTD	Isuzu CY27	25	8.5	2.5	3.1
11	Dump Truck	Leonard Kolom	ZGT 544	PTD	Isuzu CY25	25	8.5	2.5	3.1
13	Service Truck	James Pius		PTD	Isuzu FTS 33H	13	8.2	2.4	3.5
14	Break Down	〃	ZGP 667	PTD	Toyota L/Cruiser	1.5	5.3	1.8	2
15	Supervisor Vehicle	Sammy Nason	ZGP 898	PTD	Toyota L/Cruiser	1.5	5.3	1.8	2
16	Excavator	Jonah	Contractor	KCP	Hyundai	20.21	8.6	3.2	4.3
					Total =	**255.67**	**116.4**	**39.4**	**48**

thaa....!

.....

Sammy N
W/s - Civil (Cape Ruzes)

7. Remarks:

It's very unrealistic to predict the actual estimate time of completion with the wet weather and the clayish material used as Sub base grade

This project is very challenging and time consuming due to the type of material (clayish) used as Sub base grade and also the material is very slippery during wet weather or when it's in the moist condition stage.

Approved and acceptable material specified for road usage like, Koronas, River gravel etc.. are 20km to 30km distance from the project location center.

Whilst, activities are still progressing at a slower phase than expected.
Otherwise we should complete the missing link by end of April as planned schedule for this period.

For your information,

Cheers..!

.....
Sammy Naason
Site Works Supervisor – KKMLP

8. Appendixes – Photo Album

Akress River construction phase

Akress River completion phase

Sub Base material - Gravelling Works at CH: 14.5km

Road side pit.

Clearing and Grubbing works CH: 14.5km to CH: 15.5km

Trees felling CH: 15.5km to CH: 18.0km

Means of fuel delivery due to bad road condition. Full Diesel drums to be transport to job site at second point of discharge from Kimbe town.

One of the bad road section between Silovuti Junction & Cape Rouges Junction that affects the project operation during rainy days.

KIMBE KANDRIAN MISSING LINK – 2017

DAILY PROJECT WEATHER FORCAST

SHOWE H/RAIN CLOUD FINE

As at 04/01/17 – 28/02/17

TIME:		AM							PM						ACTIVITY DAY	ACTIVITY DAY	LOG BRIDGE	A' EXC		work
DAYS	DATE	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	CLEAR&GRUB	GRAVELING				
Tuesday	2017/1/3							workmen in kimbe												
Wednesday	2017/1/4																			
Thursday	2017/1/5																			
Friday	2017/1/6																			
Saturday	2017/1/7																			
Sunday	2017/1/8																			
Monday	2017/1/9																			
Tuesday	2017/1/10																			
Wednesday	2017/1/11																			
Thursday	2017/1/12																			
Friday	2017/1/13																			
Saturday	2017/1/14																			
Sunday	2017/1/15																			
Monday	2017/1/16																			
Tuesday	2017/1/17							workmen travel to camp												
Wednesday	2017/1/18							workmen travel to camp												
Thursday	2017/1/19																1		pulling logs for neru	1
Friday	2017/1/20																1		pulling logs for neru	1
Saturday	2017/1/21														0	0				
Sunday	2017/1/22														0	0				
Monday	2017/1/23															1				1
Tuesday	2017/1/24															1				1
Wednesday	2017/1/25																			
Thursday	2017/1/26															1				1
Friday	2017/1/27															1				1
Saturday	2017/1/28														idw					
Sunday	2017/1/29														idw					
Monday	2017/1/30							workmen travel to kimbe												
Tuesday	2017/1/31																			
Wednesday	2017/2/1																			
Thursday	2017/2/2																			
Friday	2017/2/3																			
Saturday	2017/2/4																			
Sunday	2017/2/5																			
Monday	2017/2/6																			
Tuesday	2017/2/7																			
Wednesday	2017/2/8																			
Thursday	2017/2/9																			
Friday	2017/2/10							workmen travel back to camp											All night rain	
Saturday	2017/2/11														0	0			surface to wet	
Sunday	2017/2/12																			
Monday	2017/2/13																			
Tuesday	2017/2/14														1	0				1
Wednesday	2017/2/15																			1
Thursday	2017/2/16																			1
Friday	2017/2/17														1	1				1
Saturday	2017/2/18														1	1				1
Sunday	2017/2/19															1				1
Monday	2017/2/20															1				1
Tuesday	2017/2/21															1				1
Wednesday	2017/2/22															1			kinim 2-kinim 3	1
Thursday	2017/2/23															1			kinim 3-kinim 4	1
Friday	2017/2/24																			1
Saturday	2017/2/25																			1
Sunday	2017/2/26														1	1			Exc service	1
Monday	2017/2/27																			
Tuesday	2017/2/28																			19
															4	12	2			

jan

		%
6	working days	19
31	days period	
25	non working days	81
20	breaks	65
5	wet days	16

feb

13	working days	46
28	days period	
15	non working days	54
10	breaks	36
5	wet days	18

total jan feb

19	working days	32
59	days period	
40	non working days	68
30	breaks	51
10	wet days	17

Tkaa...!

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Sammy Nason

Works Supervisor - (Cape Ruckes)

DEPARTMENT OF WORKS

West New Britain Provincial Office

KIMBE KANDRIAN MISSING LINK PROJECT

MONTHLY PROGRESS REPORT – 02/2017

MONTH *of* MARCH 2017

CONSTRUCTION OF NEW ROAD SECTION BETWEEN KIMBE TOWN AND KANDRIAN STATION IN WEST NEWBRITAIN PROVINCE

TABLE OF CONTENTS

1. Brief information on the Project

1.1 Introduction

- Kimbe Kandriann Missing Link project is estimated to be completed by end of April 2017 as per reschedule program.
- Estimated Distance to Project site:
  - -Kimbe to Silovuti Junction = 80km
  - -Silovuti Junction to Cape Rouge Junction (Ayang Bus Stop) = 40km
  - -Cape Rouge Junction (Ayang Bus Stop) to Vol River (End of virgin forest) = 18km
  - -Vol River (end of Virgin Forest) to Mark School (propose End of Project) = 12km

1.2 Goals and Objectives

- Gravelling works progressing at CH: 15.5km towards CH 18km Vol River.
- Construction of Log Bridges at Vil creek, Kulung creek and Vol River at CH: 15.5km to CH: 18km.

1.3 Project Site Reference up date

- Project start point at Cape Rouge Junction (Ayang Bus Stop) –CH:00km to Neru River CH: 6.4km= 6.4km (complete with road base spot gravelling state and construction of 12 temporary log bridges)
- Neru river (camp site) to Start of Virgin forest – CH: 8.4km = 2.0km (complete with approx. **200mm depth sub grade** gravelling state)
- Start of Virgin forest CH: 8.4km to Stone house CH: 14.4km= 6 km (complete with approx. **200mm depth sub base** gravelling state)
- Clearing /Grubbing and Road formation preparation completed at CH 18km
- Graveling works currently at CH: 15.5km
- Tree felling work completed at Vol River CH: 18km

2. Progress of Activities;

Activities as at 28th of February 2017

2.1) Material testing (gravel sources)

- No laboratory testing, but material used is grayish clay type which is the only and possible suitable road material for dry weather condition only and only source material with in the project site area.

2.2) Major Road Works

Total Project Estimate Distance:
Start: Cape Rouges Junction (Ayang Bus Stop) = CH: 0.00 km
End of Project: Mark School estimate CH: 26km

2nd Propose End Point: Vol River (current alignment to Link) =CH: 18km

Item	Activities	Total Estimate Quantities	Completed Quantities to Date	Estimate Quantities Remain	Estimate % Completed
No	Description	(km)	(km)	(km)	(%)
1	Trees Felling	18	18	0	100
2	Sub clearing (pilot tracking) by Dozer only	18	18	0	100
3	Clearing (removal of fallen trees) & Grubbing including Road formation preparation	18	18		100
4	Gravelling sub base layer	18	16	3	88
5	Survey –Propose Road Alignment Bruising	18	18	0	100
6	Temporary Log Bridges (No: =)	19	16	3	84
7	Type D excavation	Referred to field data sheet			100

NOTE: Sakarelam, a Logging company has cleared the existing logging road from Mark School end of Missing Link Project to Vol River joining the main existing road from Nute Log pond/base. *(Refer attach map)*

2.3) Survey and Design Works

- Require proper surveying on the new road construction alignment.
- Drawings – Propose Road Alignment; currently is eye sighted investigation only by Site Supervisor.
- Require Social and Impact study

2.4) Submission of documents and report from project site

- All field data yet to be compiled and will be submitted soon.

3. Camp Site Establishment

- Project office/house at Cape Rouge beach will cease rental fee as of February 28th 2017. Site supervisor will accommodate at Neru camp 2 once the bush house is completed b locals.
- Neru camp site 2 – currently being used.

4. Administration Matters on Project Site as at 31/03/2017

4.1) Outstanding Claims yet to be settle.

- Gravel extracted
- Trees used on log bridges
- Trees cut down and cleared for new road alignment construction
- Last Rental fee payment for Month of January February 2017 for Engineer/Supervisor Office & Accommodation at Cape Rouges Beach
- Rental fee for Neru Camp site for January, February, March and April 2017
- Office, Supervisor and meeting house – Neru camp site 2
- Machines allowance for operators

4.2) RATIONS

- Officers to provide themselves, since they are receiving their C/Allowance.

4.3) MATERIALS

- Working materials – no more purchase of materials until further notice.
- Fuels – has advance supply to be use at this period
- Urgent requirement of materials or any financial matters arising at the project site will be advised by the Site Supervisor/Engineer for consideration.

4.4) INCIDENT/CASUALTIES ON SITE

- Serious Diseases – Nil
- Minor sickness like flu, malaria, etc., workmen do seek medication at Milimata Government Health Centre (Cape rouges)

4.5) EMPLOYEES WAGES AND CAMPING ALLOWANCE

- Wages and camping allowances for casuals & operators for this year 2017 was paid in advance to Pay No: 6, whilst the project is still ongoing till we complete the missing link as a project requirement and scheduled to April depending on the wet season.
- Over Time hours worked during this period, will be recorded.

5. Propose BOQ Item & Work Schedule

Note: Original Project Document – not available

6. Site staffs and Equipment

KIMBE KANDRIAN MISSING LINK PROJECT – 2017

LIST OF OFFICERS ON SITE – 12th April 2017

SURVEY TEAM

No:	OFFICER	STATUS	PROFFESSIONS
1	MARTIN GALA	P/CASSUAL	CHAINMAN
2	ALOIS MAKSEN	T/CASSUAL	SURVEY CREW

CIVIL TEAM

	OFFICER	STATUS	PROFFESSIONS
3	SAMMY NASON	P/S	WORKS SUPERVISOR
4	GRAHAM GIGAN	P/CASSUAL	CIVIL CREW
5	JOE GOREA	P/CASSUAL	CIVIL CREW
6	NICK AIGAL	P/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
7	KEPAS LADUKU	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)

PTD TEAM

	OFFICER	STATUS	PROFFESIONS
8	JAMES PIUS	P/CASSUAL	MACHANIC (MOBILE WORKSHOP TRUCK)
9	JOE WAMUK	JICA	DRIVER-D/TRUCK
10	JOHN WAPI	JICA	DRIVER-D/TRUCK
11	ANTON KASPAR	JICA	DRIVER-D/TRUCK
12	JAUNO KISEMBO	JICA	DRIVER-D/TRUCK
13	ELIAS WANGI	JICA	OPS-EXCAVATOR
14	PETER DIDIWAI	JICA	OPS-DOZER
15	MICHAEL RAKA	JICA	OPS- DOZER
16	PAUL GAGAIAI	JICA	OPS- GRADER
17	JONAH KASEMSEM	JICA	OPS- F/END LOADER
18	NICK DIDI	JICA	OPS- ROLLER
19	VINCENT SALSAL	JICA	OPS-F/END LOADER

SITE EMPLOYMENT

	WORKMEN	DESIGNATION	PROFFESIONS
20	NOAH DAIMAS	PLO	LIASION OFFICER
21	JOHN GAVARI	TEMP LAB	BEACH HOUSE DAY SECU
22	NELSON HARRY	TEMP LAB	BEACH HOUSE NIGHT SECU
23	CHRIS BAKI	TEMP LAB	NERU CAMP NIGHT SECU
24	JOE LUGAR	TEMP LAB	NERU CAMP NIGHT SECU
25	JOHN WAGE	TEMP LAB	NERU CAMP DAY SECU
26	LEO WAGE	TEMP LAB	NERU CAMP DAY SECU
27	ROBERT KAMO	TEMP LAB	MACHINE SECU
28	MICHAEL SAURIO	TEMP LAB	MACHINE SECU
29	PETER AYANG	TEMP LAB	MACHINE SECU
30	JOE GAVARI	TEMP LAB	CIVIL CREW
31	SIONI THOMAS	TEMP LAB	CIVIL CREW
32	ALOIS AYANG	TEMP LAB	CHAIN SAW
33	BENARD ANIS	TEMP LAB	CHAIN SAW
34	JONATHAN	OPERATOR	CONTRACTOR -KCP
35	SEBA	MACHANIC	CONTRACTOR -KCP

SUMMARY

OFFICERS	No
1. PUBLIC SERVANT	1
2. MACHANICS CASSUAL	1
2. OPERATORS-KIMBE	11
3. PERMENANT CASSUALS - CIVIL	4
4. TEMPORARY CASSUALS -KIMBE	2
5. APPRENTICES	0
6. SITE EMPLOYMENT	14
7. KCP WORK MEN	2
TOTAL WORKMEN	35

7. Remarks:

All activities completed as reschedule program, accept Gravelling works being delayed due to raining days and 3 temporary log bridges will be constructed some this week if weather permit.

Whilst, activities are still progressing at a slower phase than expected.
Otherwise we should complete the missing link by end of April as planned schedule for this period.

For your information,

Cheers..!

……..
Sammy Naason
Site Works Supervisor – KKMLP

8. Appendixes – Photo Album

Wet days on project site

Tavurlasi Temporary log bridge construction

Daily activity (Gravelling) suspend due to rain

No option!! But to use Excavator and Dozer for gravelling work during wet days.

End of Missing Link at Vol River (Kimbe approach)

Vol River - Kandrian Approuch (end of existing log road, cleared by Sakerelam Company)

Existing logging Road sections cleared by Sakarelam logging company between Vol River and Kandrian (mark school) / Nute Junction.

Kandrian (via Mark Schoo) & Nute Junction

Logging new set up camp site along Nute high way

KIMBE KANDRIAN MISSING LINK – 2017

DAILY PROJECT WEATHER FORCAST

SHOWER | H/RAIN | CLOUDY | FINE

As at 01/03/17 – 30/04/17

TIME:		AM							PM						DAY ACTIVITY		LOG BRIDGE	D' EXC	work
DAYS	DATE	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	CLEAR & GRUB	GRAVELING			
Wednesday	2017/3/1																		
Thursday	2017/3/2																		
Friday	2017/3/3																		
Saturday	2017/3/4																		
Sunday	2017/3/5																		
Monday	2017/3/6						BREAK IN KIMBE												
Tuesday	2017/3/7																		
Wednesday	2017/3/8																		
Thursday	2017/3/9																		
Friday	2017/3/10																		
Saturday	2017/3/11						TRAVEL TO CAMP SITE												
Sunday	2017/3/12														1			1	1
Monday	2017/3/13														1			1	1
Tuesday	2017/3/14														1			1	1
Wednesday	2017/3/15														1		0	1	1
Thursday	2017/3/16														1		0	1	1
Friday	2017/3/17															0	1		1
Saturday	2017/3/18															0		0	
Sunday	2017/3/19														1		0	0	1
Monday	2017/3/20														1	0	0	0	1
Tuesday	2017/3/21															1			1
Wednesday	2017/3/22														1	0	0	0	1
Thursday	2017/3/23														0	0	0	0	
Friday	2017/3/24														1				1
Saturday	2017/3/25														0	0	0	0	
Sunday	2017/3/26														0	0	0	0	
Monday	2017/3/27														1	0	0	0	1
Tuesday	2017/3/28														1	0	0	0	1
Wednesday	2017/3/29														0	0	0	0	
Thursday	2017/3/30														road patching by excavator only		0	0	
Friday	2017/3/31														0	0	0	0	
APRIL																			
Saturday	2017/4/1														1				1
Sunday	2017/4/2														potukava patching		0	0	
Monday	2017/4/3																		
Tuesday	2017/4/4														1		1		1
Wednesday	2017/4/5														1	1			1
Thursday	2017/4/6																		
Friday	2017/4/7																		
Saturday	2017/4/8																		
Sunday	2017/4/9																		
Monday	2017/4/10														*log bridge at 4kilo colapes -no fuel*				
Tuesday	2017/4/11																		
Wednesday	2017/4/12																		
Thursday	2017/4/13																		
Friday	2017/4/14																		
Saturday	2017/4/15																		
Sunday	2017/4/16																		
Monday	2017/4/17																		
Tuesday	2017/4/18																		
Wednesday	2017/4/19																		
Thursday	2017/4/20																		
Friday	2017/4/21														IN KIMBE				
Saturday	2017/4/22																		
Sunday	2017/4/23																		
Monday	2017/4/24																		
Tuesday	2017/4/25																		
Wednesday	2017/4/26																		
Thursday	2017/4/27																		
Friday	2017/4/28																		
Saturday	2017/4/29																		
Sunday	2017/4/30																		16.00

march		%
13	working days	42
31	days period	
18	non working days	58
9	breaks	29
9	wet days	29

april		
3	working days	10
30	days period	
27	non working days	90
18	breaks	60
9	wet days	30

total march april		
16	working days	26
61	days period	
45	non working days	74
27	breaks	44
18	wet days	30

Tkaa...!

....

Sammy Nason

Works Supervisor - (Cape Rucres)

DEPARTMENT OF WORKS
West New Britain Provincial Office

KIMBE KANDRIAN MISSING LINK PROJECT

MONTHLY PROGRESS REPORT – 03/2017

MONTH *of* APRIL 2017

CONSTRUCTION OF NEW ROAD SECTION BETWEEN KIMBE TOWN AND KANDRIAN STATION IN WEST NEWBRITAIN PROVINCE

1. Progress of Activities;

Activities as at 13th of April 2017

1.1 Material testing (gravel sources)

- No laboratory testing, but material used is grayish clay type which is the only and possible suitable road material for dry weather condition only and only source material with in the project site area.

1.2 Major Road Works

Total Project Estimate Distance:
Start: Cape Rouges Junction (Ayang Bus Stop) = CH: 0.00 km
End of Project: Mark School estimate CH: 26km (First End Point.

Tabulated are Activities executed between the Second 2nd Propose End Point
2nd Propose End Point: Vol River (current alignment to Link) =CH: 18km

Item	Activities	Total Estimate Quantities	Completed Quantities to Date	Estimate Quantities Remain	Estimate % Completed
No	**Description**	**(km)**	**(km)**	**(km)**	**(%)**
1	Trees Felling	18	18	0	100
2	Sub clearing (pilot tracking) by Dozer only	18	18	0	100
3	Clearing (removal of fallen trees) & Grubbing including Road formation preparation	18	18		100
4	**Gravelling- placed clay material as sub base layer**	**18**	**16.5**	**1.5**	**91.6**
5	Survey –Propose Road Alignment Bruising	18	18	0	100
6	**Temporary Log Bridges: (No-**	**19**	**16**	**3**	**84**
7	Type D excavation	Referred field sheets			100

NOTE: Sakarelam, a Logging company has cleared the existing logging road from Mark School end of Missing Link Project to Vol River joining the main existing road from Nute Log pond/base. *(Refer attach map)*

1.3 Survey and Design Works

- Require proper surveying on the new road construction alignment.
- Drawings – Propose Road Alignment; currently is eye sighted investigation only by Site Supervisor's local knowledge.
- Require Social and Impact study

2. Administration Matters on Project Site as at 12/04/2017

2.1 Outstanding Claims yet to be settle.

- Gravel extracted
- Trees used on temporary log bridges
- Trees cut down/removed for new road alignment construction
- Last rental fees payment for Month of January to June 2017 for Engineer/Supervisor Office & Accommodation at camp site 1.
- Rental fee for Neru Camp site 2 for January to June 2017
- Office, Supervisor and meeting house – Neru camp site 2
- Machines allowance for Operators.

2.2 MATERIALS

- Working materials – no more purchase of materials until further notice.
- Fuels – require 20,000 ltrs to complete the remain quantities
- Urgent requirement of materials or any financial matters arising at the project site will be advised by the Site Supervisor/Engineer for consideration.

2.3 INCIDENT/CASUALTIES ON SITE

- Serious Diseases – Nil
- Minor sickness like flu, malaria, etc., workmen do seek medication at Milimata Government Health Centre (Cape rouges beach)

2.4 EMPLOYEES WAGES AND CAMPING ALLOWANCE

- Wages and Camping allowances plus Over time for Skeleton crews for Pay No: 10, 11, 12 and 13, whilst the project is still ongoing till we complete the missing link as a project requirement and scheduled to late June depending on the weather.

3.Propose Work Schedule for May to June

4.Site staffs and Equipment

KIMBE KANDRIAN MISSING LINK PROJECT – 2017

LIST OF OFFICERS ON SITE – 012th February 2017

SURVEY TEAM

No:	OFFICER	STATUS	PROFFESSIONS
1	MARTIN GALA	P/CASSUAL	CHAINMAN
2	ALOIS MAKSEN	T/CASSUAL	SURVEY CREW

CIVIL TEAM

	OFFICER	STATUS	PROFFESSIONS
3	SAMMY NASON	P/S	WORKS SUPERVISOR
4	GRAHAM GIGAN	P/CASSUAL	CIVIL CREW
5	JOE GOREA	P/CASSUAL	CIVIL CREW
6	JAMES YAMBO	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
7	NICK AIGAL	P/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
8	KEPAS LADUKU	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)

PTD TEAM

	OFFICER	STATUS	PROFFESIONS
9	JAMES PIUS	P/CASSUAL	MACHANIC (MOBILE WORKSHOP TRUCK)
10	JOE WAMUK	JICA	DRIVER-D/TRUCK
11	JOHN WAPI	JICA	DRIVER-D/TRUCK
12	ANTON KASPAR	JICA	DRIVER-D/TRUCK
13	JAUNO KISEMBO	JICA	DRIVER-D/TRUCK
14	ELIAS WANGI	JICA	OPS-EXCAVATOR
15	PETER DIDIWAI	JICA	OPS-DOZER
16	MICHAEL RAKA	JICA	OPS- DOZER
17	PAUL GAGAIAI	JICA	OPS- GRADER
18	JONAH KASEMSEM	JICA	OPS- F/END LOADER
19	NICK DIDI	JICA	OPS- ROLLER
20	VINCENT SALSAL	JICA	OPS-F/END LOADER

SITE EMPLOYMENT

	WORKMEN	DESIGNATION	PROFFESIONS
21	NOAH DAIMAS	PLO	LIASION OFFICER
22	JOHN GAVARI	TEMP LAB	BEACH HOUSE DAY SECU
23	NELSON HARRY	TEMP LAB	BEACH HOUSE NIGHT SECU
24	CHRIS BAKI	TEMP LAB	NERU CAMP NIGHT SECU
25	JOE LUGAR	TEMP LAB	NERU CAMP NIGHT SECU
26	JOHN WAGE	TEMP LAB	NERU CAMP DAY SECU
26	LEO WAGE	TEMP LAB	NERU CAMP DAY SECU
28	ROBERT KAMO	TEMP LAB	MACHINE SECU
29	MICHAEL SAURIO	TEMP LAB	MACHINE SECU
30	PETER AYANG	TEMP LAB	MACHINE SECU
31	JOE GAVARI	TEMP LAB	CIVIL CREW
32	SIONI THOMAS	TEMP LAB	CIVIL CREW
33	ALOIS AYANG	TEMP LAB	CHAIN SAW
34	BENARD ANIS	TEMP LAB	CHAIN SAW
35	JONATHAN	OPERATOR	CONTRACTOR -KCP
36	SEBA	MACHANIC	CONTRACTOR -KCP

PROJECT CLERK

37	SALAU MANDAU	P/CASSUAL	PRPJECT CLERK

SUMMARY

OFFICERS	No
1. PUBLIC SERVANT	1
2. MACHANICS CASSUAL	1
2. OPERATORS-KIMBE	11
3. PERMENANT CASSUALS – CIVIL	5
4. TEMPORARY CASSUALS -KIMBE	3
5. APPRENTICES	0
6. SITE EMPLOYMENT	14
7. KCP WORK MEN	2
TOTAL WORKMEN	37

5. Remarks:

Not much activities executed during the first two weeks of April before Easter break, due to continuous rain fall which causes inconvenience to our project logistic support.

We should complete the due quantities once the weather improve.

For your information,

Cheers..!

……..
Sammy Naason
Site Works Supervisor – KKMLP

6. Appendixes – Photo Album

WET DAYS ON PROJECT SITE
Period from late March to early April 2107

Completed - Akress temporary Log Bridge access

Tavurlasi Log bridge construction

One of a muddy road section between Silovuty Junction and Ayang Bus stop

Workmen repairing part of the Collapsed temporary Log Bridge excess about 10km from Silovuti Junction and 30km to start of Project site.

Vol river – Kimbe side

Vol River – Mark school Kandrian side

Junction - Kimbe Kandrian Nute

Photos by: Sammy

KIMBE KANDRIAN MISSING LINK – 2017

DAILY PROJECT WEATHER FORCAST

SHOWER H/RAIN CLOUDY FINE

As at 01/03/17 – 30/04/17

	TIME:	AM						PM						DAY ACTIVITY		LOG BRIDGE	D' EXC	work
DAYS	DATE	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	CLEAR & GRUB	GRAVELING			
Wednesday	2017/3/1																		
Thursday	2017/3/2																		
Friday	2017/3/3																		
Saturday	2017/3/4																		
Sunday	2017/3/5																		
Monday	2017/3/6						BREAK IN KIMBE												
Tuesday	2017/3/7																		
Wednesday	2017/3/8																		
Thursday	2017/3/9																		
Friday	2017/3/10																		
Saturday	2017/3/11						TRAVEL TO CAMP SITE												
Sunday	2017/3/12														1			1	1
Monday	2017/3/13														1			1	1
Tuesday	2017/3/14														1			1	1
Wednesday	2017/3/15														1			1	1
Thursday	2017/3/16														1		0	1	1
Friday	2017/3/17															0	1		1
Saturday	2017/3/18															0		0	
Sunday	2017/3/19														1		0	0	1
Monday	2017/3/20														1	0	0	0	1
Tuesday	2017/3/21															1			1
Wednesday	2017/3/22														1	0	0	0	1
Thursday	2017/3/23														0	0	0	0	
Friday	2017/3/24														1				1
Saturday	2017/3/25														0	0	0	0	
Sunday	2017/3/26														0	0	0	0	
Monday	2017/3/27														1	0	0	0	1
Tuesday	2017/3/28														1	0	0	0	1
Wednesday	2017/3/29														0	0	0	0	
Thursday	2017/3/30														road patching by excavator only		0	0	
Friday	2017/3/31														0	0	0	0	
APRIL																			
Saturday	2017/4/1														1				1
Sunday	2017/4/2														potukava patching		0	0	
Monday	2017/4/3																		
Tuesday	2017/4/4														1		1		1
Wednesday	2017/4/5														1	1			1
Thursday	2017/4/6																		
Friday	2017/4/7																		
Saturday	2017/4/8																		
Sunday	2017/4/9																		
Monday	2017/4/10														*log bridge at 4kilo colapes –no fuel*				
Tuesday	2017/4/11																		
Wednesday	2017/4/12																		
Thursday	2017/4/13																		
Friday	2017/4/14																		
Saturday	2017/4/15																		
Sunday	2017/4/16																		
Monday	2017/4/17																		
Tuesday	2017/4/18																		
Wednesday	2017/4/19																		
Thursday	2017/4/20																		
Friday	2017/4/21														IN KIMBE				
Saturday	2017/4/22																		
Sunday	2017/4/23																		
Monday	2017/4/24																		
Tuesday	2017/4/25																		
Wednesday	2017/4/26																		
Thursday	2017/4/27																		
Friday	2017/4/28																		
Saturday	2017/4/29																		
Sunday	2017/4/30																		16.00

Thaa...!

.....

Sammy Nasen

Work Supervisor - (Cape Rocks)

march		%
13	working days	42
31	days period	
18	non working days	58
9	breaks	29
9	wet days	29

april		
3	working days	10
30	days period	
27	non working days	90
18	breaks	60
9	wet days	30

total march april		
16	working days	26
61	days period	
45	non working days	74
27	breaks	44
18	wet days	30

DEPARTMENT OF WORKS
West New Britain Provincial Office

KIMBE KANDRIAN MISSING LINK PROJECT

MONTHLY PROGRESS REPORT – 04/2017

MONTH of JUNE 2017

CONSTRUCTION OF NEW ROAD SECTION BETWEEN KIMBE TOWN AND KANDRIAN STATION IN WEST NEWBRITAIN PROVINCE

1. Progress of Activities;

Activities as at 29th of June 2017

1.1 Major Road Works

Total Project Estimate Distance:
Start: Cape Rouges Junction (Ayang Bus Stop) = CH: 0.00 km
End of Project: Mark School estimate CH: 26km (First End Point.

Tabulated are Activities executed between the Second 2nd Propose End Point
2nd Propose End Point: Vol River (current alignment to Link) =CH: 18km

Item	Activities	Total Estimate Quantities	Completed Quantities to Date	Estimate Quantities Remain	Estimate % Completed
No	**Description**	**(km)**	**(km)**	**(km)**	**(%)**
1	Trees Felling	18	18	0	100
2	Sub clearing (pilot tracking) by Dozer only	18	18	0	100
3	Clearing (removal of fallen trees) & Grubbing including Road formation preparation	18	18		100
4	**Gravelling- placed clay material as sub base layer**	**18**	**17.5**	**0.5**	**97.2**
5	Survey –Propose Road Alignment Bruising	18	18	0	100
6	**Temporary Log Bridges: (No-**	**19**	**17**	**2**	**89.5**
7	Type D excavation	Referred field sheets			100

NOTE: Sakarelam, a Logging company has cleared the existing logging road from Mark School end of Missing Link Project to Vol River joining the main existing road from Nute Log pond/base. *(Refer attach map)*

1.2 Survey and Design Works

- Require proper surveying on the new road construction alignment.
- Drawings – Propose Road Alignment; currently is eye sighted investigation only by Site Supervisor's knowledge.
- Require Social and Impact study to be carried out in the part of the Island.

2. Administration Matters on Project Site as at 29/06/2017

2.1 Outstanding Claims yet to be settle.

- Gravel extracted **(claim submitted)**
- Trees used on temporary log bridges **(claim submitted)**
- Trees cut down/removed for new road alignment construction **(claim submitted)**
- Last rental fees payment for Month of January to June 2017 for Engineer/Supervisor Office & Accommodation at camp site 1 **(claim submitted).**
- Rental fee for Neru Camp site 2 for January to July 2017 **(claim submitted)**
- Office, Supervisor and meeting house – Neru camp site 2 **(claim submitted)**
- Boat hire. **(claim submitted)**
- Machines allowance for Operators. **(yet to settle)**

2.2 MATERIALS

- Working materials – no more purchase of materials until further notice.
- Fuels – require 6,000 ltrs to complete the remain quantities
- Urgent requirement of materials or any financial matters arising at the project site will be advised by the Site Supervisor/Engineer for consideration.

2.3 INCIDENT/CASUALTIES ON SITE

- Serious Diseases – Nil
- Minor sickness like flu, malaria, etc., workmen do seek medication at Milimata Government Health Centre (Cape rouges beach)

2.4 EMPLOYEES WAGES AND CAMPING ALLOWANCE

- Wages and Camping allowances for Skeleton crews for Pay No: 14, 15, 16 and 17, whilst the project is still ongoing till we demobilized on site.
- Due to funding, overtime will not be submitted for payment.

3.Propose Work Schedule for May to June

4.Site staffs and Equipment

KIMBE KANDRIAN MISSING LINK PROJECT – 2016

LIST OF SKELETON CREWS

KIMBE	OFFICER	STATUS	PROFFESSIONS
1	MARTIN GALA	P/CASSUAL	CHAINMAN
2	SAMMY NASON	P/S	WORKS SUPERVISOR
3	GRAHAM GIGAN	P/CASSUAL	CIVIL CREW
4	NICK AIGAL	P/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
5	KEPAS LADUKU	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
6	JAMES PIUS	P/CASSUAL	MACHANIC (MOBILE WORKSHOP TRUCK)
7	JOHN WAPI	JICA	DRIVER-D/TRUCK
8	PETER DIDIWAI	JICA	OPS-DOZER
9	MICHAEL RAKA	JICA	OPS- DOZER
10	PAUL GAGAIAI	JICA	OPS- GRADER
11	JONAH KASEMSEM	JICA	OPS- F/END LOADER
12	JAUNGO KISEMBO	JICA	DRIVER-D/TRUCK
SITE EMPLOYMENT	**WORKMEN**	**DESIGNATION**	**PROFFESIONS**
13	NOAH DAIMAS	TEMP LAB	PLO
14	CHRIS BAKI	TEMP LAB	NERU CAMP – NIGHT SECURITY
15	JOE LUGAR	TEMP LAB	NERU CAMP – NIGHT SECURITY
16	JOHN WAGE	TEMP LAB	NERU CAMP – DAY SECURITY
17	LEO WAGE	TEMP LAB	NERU CAMP – DAY SECURITY
18	ROBERT KAMO	TEMP LAB	MACHINE SECURITY – NIGHT
19	MICHAEL SAURIO	TEMP LAB	MACHINE SECURITY – NIGHT
20	PETER AYANG	TEMP LAB	MACHINE SECURITY – DAY
21	SIONI THOMAS	TEMP LAB	MACHINE SECURITY – DAY
22	JOHN GAVARI	TEMP LAB	CIVIL
23	ALOIS AYANG	TEMP LAB	CHAIN SAW
24	BENARD ANIS	TEMP LAB	CHAIN SAW
25	JONATHAN	OPERATOR	CONTRACTOR –KCP
26	SEBA	MACHANIC	CONTRACTOR –KCP

SUMMARY

OFFICERS	No
1. PUBLIC SERVANT	1
2. MACHANICS CASSUAL	1
2. OPERATORS–KIMBE	6
3. PERMENANT CASSUALS – CIVIL	4
6. SITE EMPLOYMENT	12
7. KCP WORK MEN	2
TOTAL WORKMEN	26

5. Remarks:

- ✓ Propose Road alignment has being connected at Vol River on the Kandrian side approach.
- ✓ Wet crossing completed at Vol river
- ✓ 500 meters yet to place gravel
- ✓ 2x temporary Log bridges yet to be constructed – Neru and Vol river

We should complete the due quantities by this week and then do the cleaning up ready for opening.

For your information,

Cheers..!

……..
Sammy Naason
Site Works Supervisor – KKMLP

6. Appendixes – Photo Album

Vol River – Wet crossing (Photo before)

Vol River – Wet crossing (Photo after)

End of existing logging road – Vol river Kandrian approach. (Propose Road connection alignment) Photo before.

Road connected - Vol river Kandrian approach. (Propose Road connection alignment) Photo after

Road connected section – Existing logging road from Mark school and Kandrian

Scene of a road section from Mark school to Vol River, cleared by Sakerelem logging company at Nute logging camp

Wet crossing at Vol river – During construction

Wet crossing at Vol river after construction

T-Junction – Kimbe, Kandrian & Nute

Photos by: Sammy

VOL RIVER – END OF VIRGIN FOREST (KIMBE KANDRIAN ROAD PROJECT)

JUNE 24th 2017

Vol River - Kimbe approach (photo before)

Vol River wet crossing – Kimbe approach (photo after)

End of existing logging road at Vol River – Kandrian approach (photo before)

End of existing logging road at Vol River – Kandrian approach (photo after)
Road connected…!!!

Road section connecting existing logging road from Mark school. Currently used by Sakarelem Logging company. (Vol river Kandrian approach)

WET CROSSING – VOL RIVER

Construction

Constructed

Photo: Sammy

KIMBE KANDRIAN MISSING LINK – 2017

DAILY PROJECT WEATHER FORCAST

SHOWER | H/RAIN | CLOUDY | FINE

As at 01/05/17 – 30/06/17

TIME:		AM							PM						DAY ACTIVITY		LOG BRIDGE	A' EXC	work
DAYS	DATE	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	CLEAR & GRUB	GRAVELING			
Monday	2017/5/1																		
Tuesday	2017/5/2																		
Wednesday	2017/5/3																		
Thursday	2017/5/4																		
Friday	2017/5/5																		
Saturday	2017/5/6																		
Sunday	2017/5/7														kimbe				
Monday	2017/5/8																		
Tuesday	2017/5/9																		
Wednesday	2017/5/10																		
Thursday	2017/5/11																		
Friday	2017/5/12																		
Saturday	2017/5/13																		
Sunday	2017/5/14																		
Monday	2017/5/15																		
Tuesday	2017/5/16																		
Wednesday	2017/5/17																		
Thursday	2017/5/18																		
Friday	2017/5/19																		
Saturday	2017/5/20																		
Sunday	2017/5/21																		
Monday	2017/5/22																		
Tuesday	2017/5/23																		
Wednesday	2017/5/24																		
Thursday	2017/5/25																		
Friday	2017/5/26																		
Saturday	2017/5/27																		
Sunday	2017/5/28																		
Monday	2017/5/29																		
Tuesday	2017/5/30																		
Wednesday	2017/5/31																		
JUNE																			
Thursday	2017/6/1																		
Friday	2017/6/2																		
Saturday	2017/6/3																		
Sunday	2017/6/4																		
Monday	2017/6/5																		
Tuesday	2017/6/6																		
Wednesday	2017/6/7																		1
Thursday	2017/6/8																		1
Friday	2017/6/9																		1
Saturday	2017/6/10																		1
Sunday	2017/6/11																		1
Monday	2017/6/12																		1
Tuesday	2017/6/13																		1
Wednesday	2017/6/14					kimbe													
Thursday	2017/6/15					kimbe													
Friday	2017/6/16					kimbe													
Saturday	2017/6/17					kimbe													
Sunday	2017/6/18					Travel to Neru													
Monday	2017/6/19																		1
Tuesday	2017/6/20																		1
Wednesday	2017/6/21																		1
Thursday	2017/6/22															1			1
Friday	2017/6/23														0	0	0		
Saturday	2017/6/24														0	0	0		
Sunday	2017/6/25														0	0	0		
Monday	2017/6/26																		1
Tuesday	2017/6/27																		1
Wednesday	2017/6/28																		1
Thursday	2017/6/29																		1
Friday	2017/6/30																		1
																			16

may		%
0	working days	
31	days period	
31	non working days	100
0	breaks	
0	wet days	

june		%
16	working days	53
30	days period	
14	non working days	47
11	breaks	37
3	wet days	10

total may june		
16	working days	26
61	days period	
45	non working days	74
42	breaks	69
3	wet days	5

Thaa...

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Sammy Nason

Works Supervisor - (Cape Kazes)

DEPARTMENT OF WORKS
West New Britain Provincial Office

KIMBE KANDRIAN MISSING LINK PROJECT

MONTHLY PROGRESS REPORT – 05/2017

MONTH *of* JULY 2017

CONSTRUCTION OF NEW ROAD SECTION BETWEEN KIMBE TOWN AND KANDRIAN STATION IN WEST NEWBRITAIN PROVINCE

TABLE OF CONTENT

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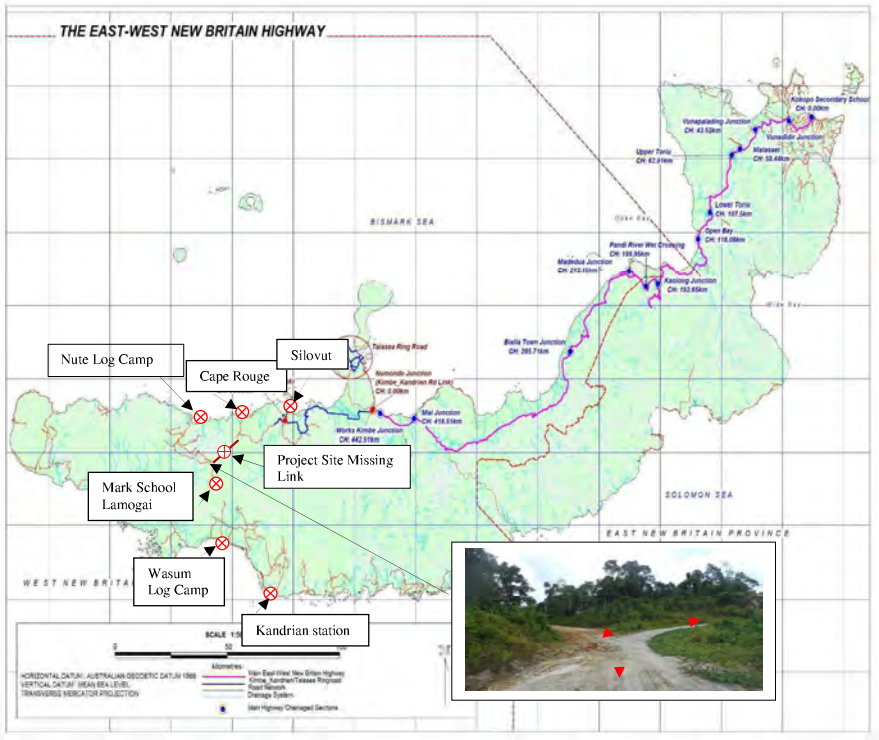
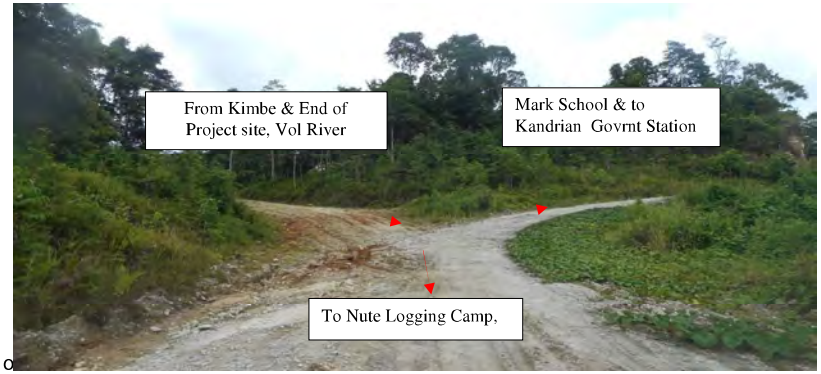
PROJECT LOCATION MAP





1. Progress of Activities;

Activities as at 30th of July 2017

- Clearing muds on road surfaces
- Gravel patching with Dozer & Excavator. Approximate 500meters yet to be graveled to Vol River
- Construction of Temporary Log Bridges. Vol River & Neru river still to construct

2. Administration Matters on Project Site as at 30/07/2017

2.1 Outstanding Claims.

- Gravel extracted **(claim submitted)**
- Trees used on temporary log bridges **(claim submitted)**
- Trees cut down/removed for new road alignment construction **(claim submitted)**
- Last rental fees payment for Month of January to June 2017 for Engineer/Supervisor Office & Accommodation at camp site 1 **(claim submitted).**
- Rental fee for Neru Camp site 2 for January to July 2017 **(claim submitted)**
- Office, Supervisor and meeting house **–** Neru camp site 2 **(claim submitted)**
- Boat hire. **(claim submitted)**
- Machines allowance for Operators. **(yet to settle)**

Note: Claims summited are still in process

2.2 INCIDENT/CASUALTIES ON SITE

- Serious Diseases – Nil
- Minor sickness like flu, malaria, etc., workmen do seek medication at Milimata Government Health Centre (Cape rouges beach)

2.3 EMPLOYEES WAGES AND CAMPING ALLOWANCE

- Unpaid Wages for project casual employees Pay No: 14, 15 & 16
- Unpaid Camping allowance for Skeleton crew pay 14, 15 & 16
- Due to funding constrain, overtime hours will not be tolerated.

3. WORKING BAR CHART – JUNE, JULY & AUGUST

KIMBE KANDRIAN MISSING LINK

WEEKLY WORK RESCHEDULE FOR MONTH OF JUNE 2017

PROJECT NAME: Kimbe to Kandrian Missing Link Project in West New Britain Province

ROAD SECTION IDENTIFY: Between Akress River CH: 12.4km & Vol River CH: 18.0km

Schedule:

Item:	MONTHS	MAY				JUNE				JULY			
	WEEK #	wk18	wk19	wk20	wk21	wk22	wk23	wk24	wk25	wk26	wk27	wk28	wk29
	WK ENDING DATE	7/5/17	14/5/17	21/5/17	28/5/17	4/6/17	11/6/17	18/6/17	25/6/17	2/7/17	9/7/17	16/7/17	23/7/17
1	*Earth Works - Gravelling*												
	Estimate												
	Actual												
2	*Log bridge Construction*												
	Estimate												
	Actual												

Activities:

1. Gravelling:

	measure
length	500 m
width	7 m
depth	0.2 m
area	700 m2
volume	140 m3

2. Log bridges construction:

	span
Vol river	22 m
Vil creek	8 m
Neru river	21 m

key:

- Estimate completion date
- Actual progress of work to date
- Estimate Demobilization week

Thaa… Sammy N

4. ON SITE STAFF & EQUIPMENT

KIMBE KANDRIAN MISSING LINK PROJECT – 2016

LIST OF SKELETON CREWS

KIMBE	OFFICER	STATUS	PROFFESSIONS
1	MARTIN GALA	P/CASSUAL	CHAINMAN
2	SAMMY NASON	P/S	WORKS SUPERVISOR
3	GRAHAM GIGAN	P/CASSUAL	CIVIL CREW
4	NICK AIGAL	P/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
5	KEPAS LADUKU	T/CASSUAL	CIVIL CREW (KIMBE ENGAGEMENT)
6	JAMES PIUS	P/CASSUAL	MACHANIC (MOBILE WORKSHOP TRUCK)
7	JOHN WAPI	JICA	DRIVER-D/TRUCK
8	PETER DIDIWAI	JICA	OPS-DOZER
9	MICHAEL RAKA	JICA	OPS- DOZER
10	PAUL GAGAIAI	JICA	OPS- GRADER
11	JONAH KASEMSEM	JICA	OPS- F/END LOADER
12	JAUNGO KISEMBO	JICA	DRIVER-D/TRUCK
SITE EMPLOYMENT	**WORKMEN**	**DESIGNATION**	**PROFFESIONS**
13	NOAH DAIMAS	TEMP LAB	PLO
14	JOE KULO	TEMP LAB	NERU CAMP – NIGHT SECURITY
15	JOE LUGAR	TEMP LAB	NERU CAMP – NIGHT SECURITY
16	JOHN WAGE	TEMP LAB	NERU CAMP – DAY SECURITY
17	LEO WAGE	TEMP LAB	NERU CAMP – DAY SECURITY
18	ROBERT KAMO	TEMP LAB	MACHINE SECURITY – NIGHT
19	MICHAEL SAURIO	TEMP LAB	MACHINE SECURITY – NIGHT
20	PETER AYANG	TEMP LAB	MACHINE SECURITY – DAY
21	SIONI THOMAS	TEMP LAB	MACHINE SECURITY – DAY
22	JOHN GAVARI	TEMP LAB	CIVIL
23	ALOIS AYANG	TEMP LAB	CHAIN SAW
24	BENARD ANIS	TEMP LAB	CHAIN SAW
25	JONATHAN	OPERATOR	CONTRACTOR -KCP
26	SEBA	MACHANIC	CONTRACTOR -KCP

SUMMARY

OFFICERS	No
1. PUBLIC SERVANT	1
2. MACHANICS CASSUAL	1
2. OPERATORS-KIMBE	6
3. PERMENANT CASSUALS – CIVIL	4
6. SITE EMPLOYMENT	12
7. KCP WORK MEN	2
TOTAL WORKMEN	**26**

5. PROJECT UPDATE – MONTH OF JULY

We are working behind clock with only 1x KCP Excavator and 1x DOW Dozer ZGT 560 (new), Our DOW JICA fleet Excavator ZGT 568 has defect with its engine from an incident happen on the 8th of July and the DOW Dozer (old) ZGV 325 has defect with its blade ramp since May this year and still awaiting maintenance.

Activities as;

- ✓ Propose Road alignment has being connected at Vol River on the Kandrian side approach.
- ✓ Wet crossing completed at Vol river
- ✓ 500 meters yet to place gravel
- ✓ 2x temporary Log bridges yet to be constructed – Neru and Vol river

Weather and Machinery is our main hold back on the project schedule for the last two months.

For your information,

Cheers..!

……..
Sammy Naason
Site Works Supervisor – KKMLP

6. Appendixes – Photo Album

Graveling work

Clearing mud and gravel patching by Dozer & Excavator during wet weather

Log Bridge abutment construction – Vil Creek

Log Bridge construction – Vil Creek

Photos by: Sammy

KIMBE KANDRIAN MISSING LINK - 2017

DAILY PROJECT WEATHER FORCAST

SHOWER H/RAIN CLOUDY FINE

As at 01/05/17 - 30/06/17

	TIME:	AM							PM							DAY ACTIVITY		LOG BRIDGE	A' EXC	
DAYS	DATE	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	CLEAR & GRUB	GRAVELING				
Saturday	2017/7/1																			
Sunday	2017/7/2																			
Monday	2017/7/3														stop work due to unpaid wages					
Tuesday	2017/7/4														in kimbe					
Wednesday	2017/7/5																			
Thursday	2017/7/6																			
Friday	2017/7/7															1	1		1	
Saturday	2017/7/8															1	1		1	
Sunday	2017/7/9															0	1		1	
Monday	2017/7/10																		0	
Tuesday	2017/7/11																		0	
Wednesday	2017/7/12																		0	
Thursday	2017/7/13																		0	
Friday	2017/7/14																		0	
Saturday	2017/7/15																		1	
Sunday	2017/7/16																		0	
Monday	2017/7/17																		0	
Tuesday	2017/7/18																		0	
Wednesday	2017/7/19																		0	
Thursday	2017/7/20																		0	
Friday	2017/7/21																		0	
Saturday	2017/7/22														Town - camp ration				0	
Sunday	2017/7/23																		0	
Monday	2017/7/24														Work and stop due to rain				1	
Tuesday	2017/7/25														No work due to wet surface				0	
Wednesday	2017/7/26														No work due to wet surface				0	
Thursday	2017/7/27														No work due to wet surface				0	
Friday	2017/7/28														No work due to wet surface				0	
Saturday	2017/7/29														No work due to wet surface				0	
Sunday	2017/7/30														No work due to wet surface				0	
Monday	2017/7/31														No work due to wet surface				0	
AUGUST																			0	
Tuesday	2017/8/1														No work due to wet surface				0	
Wednesday	2017/8/2																			
Thursday	2017/8/3																			
Friday	2017/8/4																		5	
Saturday	2017/8/5																			
Sunday	2017/8/6														work stop due to unpaid wages 14,15,16					
Monday	2017/8/7																			
Tuesday	2017/8/8																			
Wednesday	2017/8/9																			
Thursday	2017/8/10																			
Friday	2017/8/11																			
Saturday	2017/8/12																			
Sunday	2017/8/13																			
Monday	2017/8/14																			
Tuesday	2017/8/15																			
Wednesday	2017/8/16																			
Thursday	2017/8/17																			
Friday	2017/8/18																			
Saturday	2017/8/19																			
Sunday	2017/8/20																			
Monday	2017/8/21																			
Tuesday	2017/8/22																			
Wednesday	2017/8/23																			
Thursday	2017/8/24																			
Friday	2017/8/25																			
Saturday	2017/8/26																			
Sunday	2017/8/27																			
Monday	2017/8/28																			
Tuesday	2017/8/29																			
Wednesday	2017/8/30																			

july

5	working days	16
31	days period	
26	non working days	84
6	breaks	19
20	wet days	65

august

0	working days	0
14	days period	
14	non working days	50
13	breaks	46
1	wet days	4

total july august

5	working days	11
45	days period	
40	non working days	89
19	breaks	42
21	wet days	47

Tkaa...!

....

Sammy Nason

Worka Supervisor - (Cape Ruzes)

Annex C

Japan International Cooperation Agency

The Project for Capacity Development on Road Maintenance in the Independent State of Papua New Guinea

Hastings Deering Training Report

(Fourth Year)

May 2017

INGÉROSEC Corporation
ORIENTAL CONSULTANTS GLOBAL Co., Ltd.

Contents

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List of terms / glossary

ACERT™	**Advanced Combustion Emission Reduction Techn**ology (Caterpillar technology)
CAT®	Caterpillar Incorporated
CDRM	Project for Capacity Development on Road Maintenance
DOW	Department of Works
ECM	electronic control module
ESP	East Sepik Province
ET	Electronic Technician (Caterpillar software-based service tool)
HDIT	Hastings Deering Institute of Technology
HEUI	Hydraulic Electronic Unit Injector (Caterpillar technology)
HQ	headquarters
JICA	Japan International Cooperation Agency
MP	Morobe Province
NATTB	National Apprenticeship & Trade Testing Board
NPR	new product release
NRC	National Rebuild Centre
OJT	on-the-job training
PNG	Independent State of Papua New Guinea
PPE	personal protective equipment
PPM	provincial plant manager
PTD	Plant and Transport Division
PWM	provincial works manager
SIS	Service Information System (Caterpillar parts & service information software)
SMCS	service management control system
STO	senior technical officer
TOT	training of trainers
WHP	Western Highlands Province
WNBP	West New Britain Province

Project for Capacity Development on Road Maintenance in the Independent State of Papua New Guinea

1 Course outline

This a report on two technical training courses for eight members of the Plant and Transport Division staff of the Department of Works (hereafter "trainees"). This type of training was provided to further enhance the trainees' ability to diagnose and maintain hydraulics systems and electronic-controlled engines, to find the correct information to effect replacements or repairs and to solve problems at their respective provincial work locations.

1.1 Course name

Training for Fundamentals of Hydraulic and Electronic Technician (ET) with "C" Series ACERT Engine.

1.2 Training period and location

The five-day training was provided by Hastings Deering (PNG) Limited from 08:00 to 17:00 on 8th and 12th May, 2017, at Hastings Deering Institute of Technology, Port Moresby.

1.3 Trainees

A total of eight trainees from DOW provincial offices attended the training. The provincial offices included DOW PTD NRC, DOW Morobe PTD, DOW Western Highlands PTD, DOW East Sepik PTD and DOW West New Britain PTD. Further details about the trainees are included in Section 5. Three members of the JICA Expert Team observed the training.

2 Course contents

2.1 Course schedule

Table 1 — Course schedule

Day	Date	Training contents
1	08/05/2017 (Monday)	AM: Review Maths & Hydraulics PM: Fundamentals of Hydraulics
2	09/05/2017 (Tuesday)	AM: Fundamentals of Hydraulics PM: Fundamentals of Hydraulics
3	10/05/2017 (Wednesday)	AM: Fundamentals of Hydraulics PM: Fundamentals of Hydraulics
4	11/05/2017 (Thursday)	AM: Fundamentals of Hydraulics PM: Fundamentals of Hydraulics
5	12/05/2017 (Friday)	AM: Review Caterpillar Electronic Technician PM: Practical Caterpillar Electronic Technician with "C" Series ACERT Engine

2.2 Training for Fundamentals of Hydraulics

2.2.1 Training objectives

On successful completion of the training, trainees should be able to:

- identify safety issues when undertaking work on hydraulic systems;
- calculate using Pascal's law;
- identify the types of hydraulic components fitted to CAT equipment; and
- perform hydraulic testing, using information in manuals or SIS.

2.2.2 Training curriculum

The training program consisted of the following:

- Day one:
  - Hydraulic safety
  - Contamination control
  - Hydraulic principles
  - Common hydraulic calculations
- Day two:
  - Tanks
  - Hoses
  - Coolers
  - Filters
  - Actuators
  - Pumps
  - Motors
  - Accumulators
- Day three:
  - Basic valves
  - Practical
  - ISO symbols
  - Activity – Schematic
- Day four:
  - Activities
  - Schematic exercises
  - Training on a CAT 914G wheel loader or equivalent with ET monitoring

2.3 Training for Electronic Technician (ET) with "C" Series ACERT Engine

2.3.1 Training objectives

On successful completion of the training, trainees should be able to:

- correctly connect and disconnect the Communication Adaptor 2 or 3 between the laptop computer and the machine;
- access Electronic Technician (ET) on the laptop computer;
- use diagnostic and service tools to perform calibrations and diagnostic tests;
- create reports; and
- download and upload configuration files.

Expected outcomes included:

- being able to interface with and diagnose "C" series ACERT engines with confidence;
- being able to upload new ET versions; and

- being able to read the monitoring system and identify problems as reported by the system.

2.3.2 Training curriculum

The training program consisted of the following:

- Course introduction
  - Introduction and course outline
  - Pre-test
- ET access
  - Identify computer desktop / laptop
  - Identify ET icon
  - Access training program
- ET program
  - Identify the various toolbar icons
  - Identify the various dropdown menu items
  - Access various screens
  - Identify the information on the various screens
- ET reports
  - Generate reports from various screens
  - Copy a configuration file
  - Download and upload a configuration file
- ET connection
  - Connect Communication Adaptor 2 - 3 to "C" series ACERT engine
  - Connect Communication Adaptor 2 - 3 to computer
  - Access machine ECMs
- Information gathering
  - Access the codes and events screens
  - Generate a report
  - Download a configuration file
- Practical diagnostic operations
  - ECM Summary Screen
  - Status Tool Screen
  - Active Codes Screen
  - Logged Codes Screen
  - Logged Event Codes Screen
  - Sensor calibration
  - Speed timing calibration
  - Cylinder cut-out tests
  - Other available tests
- Course review
- Post test

3 Remarks on the training

3.1 Remarks about training for Fundamentals of Hydraulics

This course was a refresher about some of the hydraulic components and parts that are used in the equipment. Each trainee was given a printed textbook and the trainer conducting slide show presentations to ensure that the trainees understood each hydraulic part and component. Each trainee also had the opportunity to do classroom activities that included naming of hydraulic components and viewing of schematic diagrams of a hydraulic system. The practical training included hydraulic testing of a wheel loader using pressure gauges. This test included checking of the left-hand side and right-hand side steering cylinders, and lifting and lowering of the boom cylinder. The trainees participated well in the training and this training will enable them to read and troubleshoot hydraulic problems in CAT machines.

3.2 Remarks about training for Electronic Technician (ET) with "C" Series ACERT Engine

ET enabled the trainees to apply the latest technology when troubleshooting CAT machines. The software itself has the capability of detecting errors in the machine; thus making it easier for mechanics to diagnose them. The trainees had the opportunity to work on the computer and get a feel for using the ET software.

3.3 Training environment

The trainees wore PPE for the duration of the course. Trainees were asked to do a safety induction on day one of the training, which they all signed and submitted to the trainer. The safety induction included Operational Work Area, Hazard Identification and Management, Permits and Authority to Operate, Operating Procedures, Tooling, House Keeping and Operational Safety Systems.

3.4 Trainee motivation and personal conduct

This training has enhanced the knowledge of the trainees in both hydraulics and usage of ET. All the trainees participated well in the training, gave positive feedback and were motivated by the training to continue spreading the knowledge to others in their respective provinces. Everybody behaved in a professional manner towards the training.

The trainer issued a student rating report based upon the abilities demonstrated by trainees throughout the courses. The ratings related to knowledge acquisition were divided into the below categories.

- Prior knowledge / learning: trainees had an understanding of the basic material; trainees had a knowledge of product principles
- Ability to learn: trainees understood theory principles; trainees retained information once understood
- Practical skills: trainees showed a desire to be involved in practical work; trainees demonstrated analytical thinking; trainees used tools safely and well

The ratings related to motivation and personal conduct were divided into the below categories.

- Attitude: trainees showed an interest in subjects; trainees made a good effort
- Communication: trainees listened attentively; trainees asked questions; trainees were capable and willing to pass on information to others
- Participation: trainees took part in discussions; trainees contributed constructively
- Personal conduct score: trainees behaved in a positive manner

The ratings were given on a scale from 0 to 15, with the exception of the personal conduct score, which was out of 10. The scores had the following associated meanings: 0 to 3 meaning 'unsatisfactory'; 4 to 6 meaning 'satisfactory'; 7 to 9 meaning 'good'; 10 to 12 meaning 'very good'; and 13 to 15 meaning 'excellent'. The results for all trainees can be seen in Appendix 2. Generally, all scores were either 'good' or 'very good'.

The trainees gave feedback on the training experience and the course contents. The summary of responses can be seen in Appendix 3. The scores for the length of the training were lower than other scores, because trainees thought that the course was too short. This response is considered normal for trainees that are learning new or unfamiliar topics. Generally, all trainees were very satisfied with their training experience.

3.5 Test scores

Table 2 — Trainee test scores for Fundamentals of Hydraulics training

Province	Name / Position	Pre-training test score (60)	Post-training test score (32)	Overall Trainer Evaluation
DOW East Sepik	Mr Savenat Butinga Provincial Plant Manager	30 (50%)	25 (78%)	NYC
	Mr John Ranga Supervisor - Maintenance Services	30 (50%)	19 (59%)	NYC
DOW Western Highlands	Mr Jerry Lomoto a/Provincial Plant Manager	39 (65%)	27 (84%)	Competent
	Mr Richard Rodney Senior Technical Officer - Heavy Equipment	28 (47%)	16 (50%)	NYC
DOW West New Britain	Mr Davery Tageno Supervisor - Maintenance Services	49 (82%)	14 (44%)	NYC
	Mr Wilson Tilili Senior Technical Officer - Quality Control	28 (47%)	16 (47%)	NYC
DOW Morobe	Mr Bernard Popi Senior Technical Officer - Heavy Equipment	43 (71%)	22 (69%)	NYC
DOW NRC	Mr Billy Richard Apprentice - Heavy Equipment	47 (78%)	28 (86%)	Competent

Note: NYC = not yet competent

Table 3 — Trainee test scores for ET training

Province	Name / Position	Pre-training test score (10)	Post-training test score (20)	Overall Trainer Evaluation
DOW East Sepik	Mr Savenat Butinga Provincial Plant Manager	5 (50%)	13 (65%)	NYC
	Mr John Ranga Supervisor - Maintenance Services	2 (20%)	15 (75%)	NYC
DOW Western Highlands	Mr Jerry Lomoto a/Provincial Plant Manager	5 (50%)	17 (85%)	Competent
	Mr Richard Rodney Senior Technical Officer - Heavy Equipment	3 (30%)	15 (75%)	NYC
DOW West New Britain	Mr Davery Tageno Supervisor - Maintenance Services	3 (30%)	6 (30%)	NYC
	Mr Wilson Tilili Senior Technical Officer - Quality Control	2 (20%)	11 (55%)	NYC
DOW Morobe	Mr Bernard Popi Senior Technical Officer - Heavy Equipment	6 (60%)	19 (95%)	Competent
DOW NRC	Mr Billy Richard Apprentice - Heavy Equipment	10 (100%)	18 (90%)	Competent

Note: NYC = not yet competent

3.6 Knowledge acquisition

Trainees achieved varied scores in the pre- and post-training tests, as shown in Table 2 and Table 3. The trainer observed that trainees had different levels of background education and occupational skills.

All trainees participated well in the hydraulics training and gained a lot of knowledge in the process. The trainer observed that trainees had little experience or knowledge of hydraulics and responded by re-introducing the basic, apprentice-level knowledge. They now have some understanding of basic hydraulics and have done some practical on hydraulic testing by utilizing pressure gauges connected to a wheel loader.

Regarding the test scores for the Fundamentals of Hydraulics training, the trainer observed that two of the trainees did not show much improvement and the two of the trainees actually appeared to achieve lower scores after the training. The trainer surmised that this lack of change or negative change in results was due to trainees having out-of-date knowledge of hydraulics, being out of practice with the necessary calculation skills, and being strongly influenced by exam performance pressure from having little experience of formal test assessments. It should also be noted that the pre- and post-training test papers were different.

All trainees have previously attended training with ET and are slowly catching up on the usage of computers to carry out tests on machines. The training included connecting ET to the engine and running diagnostics. The trainer observed that, although the course was designed as refresher course, a great deal of time was spend teaching mouse skills, keyboard skills, and the basics of database management and navigation.

Regarding the test scores for the ET training, most trainees showed a significant improvement in their post-training results. However, considering the previous training with ET, the trainer expected test results of 90%. The trainer surmised that the trainees do not yet have the pre-requite computer skills to increase their competence with ET.

According to the overall evaluation by the trainer, the performance level of most of the trainees was not considered 'competent', because they did not achieve the pass rate for post-training test scores of 80% or more. Certificates of Competence were awarded to trainees who achieved the pass rate and Certificates of Attendance were issue to all trainees.

Generally, these results indicate that the course contents was unfamiliar to the trainees after so many years in the field or workshop. Most trainees were motivated to learn more (especially ET); however, this did not necessarily manifest in high post-training test results, which indicates that they may have forgotten some of the skills learned previously (apprenticeship years). The trainer commented that the trainees either lack the ability to retain information, or have never been taught or have never applied the information covered in the course.

3.7 Recommendations

The trainer recommended that trainees who did not achieve the pass rate (indicated with NYC) to practice the knowledge acquired in the training and to re-read the training textbooks. The trainer also recommended that trainees first be trained in how to operate a computer keyboard and mouse, and be taught the principles of databases before training them with ET or SIS.

Regarding further training, the trainer recommended that trainees be re-assessed against NATTB standards to identify appropriate levels of training and required areas of knowledge.

4 Trainee list

Table 4 — List of trainees

Province	Name / Position	Photo	Remarks
DOW East Sepik PTD	Mr Savenat Butinga Provincial Plant Manager		He joined DoW in 1987 as an apprentice and he has 29 years' experience. He participated in three months' training in Japan in 2013. He has attended several in-house trainings conducted by DoW, JICA and various training institutions in the country. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 50% → 80% for SIS and 20% → 85% for ET. Trainer comment for hydraulics & ET training: "Savenat worked well during the course and I expected him to achieve higher post test results than he did."
	Mr John Ranga Supervisor - Maintenance Services		He joined DoW in 1982 as an apprentice and he has 34 years' experience. He participated in two weeks' training in Japan in 2016 as part of JICA CDRM. The only trainings he has done were from JICA. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 40% → 80% for SIS and 20% → 70% for ET. **Trainer comment for hydraulics training:** "John was attentive throughout the course and was quite active in practical sessions." Trainer comment for ET training: "John was not familiar with the electronics systems; he found some sections of the course difficult."

DOW Western Highlands PTD	Mr Jerry Lomoto a/Provincial Plant Manager		He joined DoW in 1976 as an apprentice and he has over 40 years' experience. He attended Lae Technical College and has trained at Victoria Roads in Melbourne, Australia; SMEC in Sydney, Australia; Boroko Motors in POM and Hastings Deering in POM. He participated in two weeks' training in Japan in 2015 as part of JICA CDRM. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 50% → 90% for SIS and 10% → 90% for ET. Trainer comment for hydraulics training: "Jerry was keen to learn and studied hard to achieve a good result." Trainer comment for ET training: "Jerry now has a better understanding of the system covered. Excellent result."
	Mr Richard Rodney Senior Technical Officer - Heavy Equipment		He attended Fatima Secondary School from 1984-1988. He has been with DoW for 21 years now having started in 1995. The only trainings he has done were from JICA. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 40% → 100% for SIS and 20% → 80% for ET. Trainer comment for hydraulics training: "Richard was not familiar with the machine's hydraulics systems; he found some sections of the course difficult." Trainer comment for ET training: "Richard was not familiar with the electronics systems; he found some sections of the course difficult."

DOW West New Britain PTD	Mr Davery Tageno Supervisor - Maintenance Services		He joined DoW in 1978 as an apprentice and has over 38 years' experience. He attended Lae Technical College and has done courses in Engine Rebuilding, Chassis Alignment, Auto Air Conditioning, Transmission and Torque. He participated in two weeks' training in Japan in 2016 as part of JICA CDRM. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 50% → 90% for SIS and 20% → 80% for ET. Trainer comment for hydraulics training: "Davery was not familiar with the machine's hydraulics systems; he found some sections of the course difficult." Trainer comment for ET training: "Davery was not familiar with the electronics systems; he found some sections of the course difficult."
	Mr Wilson Tilili Senior Technical Officer - Quality Control		He joined DoW as an apprentice in 1983 after completing his studies at Malaguna Technical College. He has done several block courses with Lae Technical College and during his work with DoW, he has accomplished basic Automotive, Fleet Owners Course and Troubleshooting and Safety. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 50% → 100% for SIS and 30% → 75% for ET. Trainer comment for hydraulics training: "Wilson was not familiar with the machine's hydraulics systems; he found some sections of the course difficult." Trainer comment for ET training: "Wilson was not familiar with the electronics systems; he found some sections of the course difficult."

DOW Morobe PTD	Mr Bernard Popi Senior Technical Officer - Heavy Equipment		He has been with DoW for 25 years now after completing his training with Mt Hagen Technical College in 1990. He joined DoW in 1991 as a HEF apprentice and graduated in 1996. He also attended some short courses with SMEC (Australia) and JICA (Japan). He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 50% → 100% for SIS and 20% → 75% for ET. Trainer comment for hydraulics training: "Bernard worked well during the course and I expected him to achieve a higher post test result than he did." Trainer comment for ET training: "Bernard maintained interest throughout the course and worked very hard to achieve an excellent result."
DOW PTD NRC	Mr Billy Richard Apprentice - Heavy Equipment		He joined DoW as an apprentice after completing his training at Mt Hagen Technical College in 2009. He has 2 years' experience post tradesman at NRC. He has attended some short courses with UMW, Hastings Deering and JICA. He participated in training at Hastings Deering as part of JICA CDRM in December 2016. His pre- and post-training scores were 20% → 100% for SIS and 60% → 100% for ET. Trainer comment for SIS training: "Billy maintained interest throughout the course and worked very hard to achieve an excellent result." Trainer comment for ET training: "Billy achieved an excellent result due to his effort and attitude towards training."

5 Photographs of Training

PTD staff having training at Hastings Deering Training Room, 9th May, 2017.

PTD staff having training at Hastings Deering Training Room, 9th May, 2017.

Figure 1 — Photographs of classroom training session for Fundamentals of Hydraulics

PTD staff having training at Hastings Deering Training Room, 10th May, 2017.

PTD staff having training at Hastings Deering Training Room, 10th May, 2017.

Figure 2 — Photographs of classroom training session for Fundamentals of Hydraulics

PTD staff having practical training on the usage of ET with the 'C' Series Engine at Hastings Deering yard, 12th May, 2017.

PTD staff having practical training on the usage of ET with the 'C' Series Engine at Hastings Deering yard, 12th May, 2017.

Figure 3 — Photographs of practical training session for ET

PTD staff with JICA Experts and HDIT trainer,
12th May, 2017.

Laptops newly procured for use with ET and SIS,
12th May, 2017.

Figure 4 — Photographs of trainees and procured equipment

Presentation of ET / SIS laptop set to WHP representative,
12th May, 2017.

Presentation of ET / SIS laptop set to WNBP representative,
12th May, 2017.

Figure 5 — Photographs of presentation of laptop sets to provincial PTD representatives

Presentation of ET / SIS laptop set to ESP representative,
12th May, 2017.

Presentation of ET / SIS laptop set to MP representative,
12th May, 2017.

Figure 6 — Photographs of presentation of laptop sets to provincial PTD representatives

Trainers Report

Company Name: JICA Consulting Division Ingérosec Corporation
Dates Conducted: 8-11/05/17 and 12/05/17
Notes: Nil
Report Produced by: Kae Karukuru & Andree James

This report is a general outline of the two technical training courses delivered to the staff members of Plant and Transport Division of the Department of Works on 8-12 May, 2017 at Hastings Deering Institute of Technology.

The two courses provided are as follows, Cat Basic Hydraulics (4 days) course and Cat Electronic Technician (ET) (one day) course.

There were eight participants from four different provincial work locations that attended the training. All of the participants had different levels of educational background and occupational skills.

These courses were an eye opener for them as they have not been trained in their working life with the type of training that Hastings Deering provides for its internal and external customers.

They have suggested for the Department of Works through the donor sponsor (JICA) Ingerosec Corporation of Japan to provide more of these types of training to further enhance their skills to be more productive at the respective provincial work locations. I know without a doubt that your intentions are to do exactly that however, I feel it my responsibility that this be executed with a more research into current competence. To explain further….

Both courses, the CAT Basic in Hydraulics and the CAT Electronic Technician (ET) are designed as refresher courses for Post Trade Fitters. You will see from the results of the CAT ET Training there was an increase in skill and knowledge retained however not to the usual scores of 90% plus that we are used to seeing. The result is because some of the learners had no previous exposure to using computers and we spent a great deal of time teaching them mouse skills, keyboard skills, basics in database management and navigation. Had they have had the pre-requisite skill of using a computer their scores would have been significantly higher so practice will be essential to these learners in order to keep them competent or increase competence.

You can also see from the Pre and Post-tests in the CAT Basics in Hydraulics scoring the learners did not move their scores overly. In a few cases some went backwards. This is a result of many of them being out of date in their current knowledge having not used computations or calculations in a very long time. It could also be that the learners are not used to formative assessment situations which can place a huge amount of pressure on the learner to perform which increases anxiety and undermines performance. In normal situations most qualified fitters and/or highly experienced ones use these skills on a daily basis. There was no evidence to support either qualification or experience in Hydraulics or supporting knowledge. As a result we re-introduced many of the basics (apprentice level knowledge) so that they were able to complete class room activities and participate in the program.

General commentary from the management team (2 experts at the back of the room) in attendance was that there is a need to bring more 'up to date skill' into the company and current employee contingent is outdated, but more importantly they realised that most were unable to retain knowledge for any length of time. The learners said they just couldn't remember at post-test as this was a closed book test. Without a very large knowledge base this would always be the case.

All in all it is concerning that this occurred simply because the Post Assessment questions are questions any 4th year apprentice should be able to answer and this confirms that some of your fitters either lack the ability to retain information or have never been given this information or used it previously and it was mostly entirely new information.

Both programs were delivered in full.

Note that most certificates are certificates of attendance not competence as we have a minimum of an 80% pass rate to be deemed competent. No competence was demonstrated against the standards being measured simply because they had to spend time learning about it rather than being able to deploy the skills ordered. Example. Learn how to use a keyboard and mouse and the principles of a database first, then learn SIS. Our Recommendation for attendees who are marked" NYC" is to practice the knowledge acquired and read their workbooks.

On a final note it is my recommendation that all Fitters be re-assessed against NATTB standards in order for you to be assured that your Fitters are Qualified to the current standards and able to fulfil their duties to those standards. This in turn will assist you in identifying appropriate levels of training and courses for their attendance and ensure that your investment is in the hands of appropriate levels of learner.

This is a hefty project to undertake however the alternative is misdiagnosed machines, re-works and more time in the workshop than is necessary. Of course a study would need to be performed to validate this evaluation based on 4 days in a classroom. From comments passed in the classroom by both student and experts, I believe, are inherently aware of the skill gaps. When I asked if they were qualified Fitters (having doubts myself) they all verified that they were and very experienced. As I moved further and further into the program unfortunately the information they gave me simply did not align cognitively or behaviourally.

See below for Pre and Post test results and scores:

Plant and Transport Division Department Of Works					Assessment Results		End Result
	Name	**Province**	**Course**	**Date**	**Pre-Test (60)**	**Post Test (32)**	**Recommendation**
1	Richard Rodney	WHP	Cat Basic Hydraulics	8-11 May 2017	28 (47%)	16 (50%)	NYC
2	Wilson Tilili	WNBP	Cat Basic Hydraulics	8-11 May 2017	28 (47%)	16 (47%)	NYC
3	Bernard Popi	Morobe	Cat Basic Hydraulics	8-11 May 2017	43 (71%)	22 (69%)	NYC
4	Billy Richard	Morobe	Cat Basic Hydraulics	8-11 May 2017	47 (78%)	28 (86%)	COMPETENT
5	Davery Tageno	WNBP	Cat Basic Hydraulics	8-11 May 2017	49 (82%)	14 (44%)	NYC
6	Savenat Butinga	ESP	Cat Basic Hydraulics	8-11 May 2017	30 (50%)	25 (78%)	NYC
7	John Ranga	ESP	Cat Basic Hydraulics	8-11 May 2017	30 (50%)	19 (59%)	NYC
8	Jerry Lomoto	WHP	Cat Basic Hydraulics	8-11 May 2017	39 (65%)	27 (84%)	COMPETENT

Plant and Transport Division Department Of Works					Assessment Results		End Result
	Name	**Province**	**Course**	**Date**	**Pre-Test (10)**	**Post Test (20)**	**Recommendation**
1	Richard Rodney	WHP	Cat Electronic Technician (ET)	12 May 2017	3 (30%)	15 (75%)	NYC
2	Wilson Tilili	WNBP	Cat Electronic Technician (ET)	12 May 2017	2 (20%)	11 (55%)	NYC
3	Bernard Popi	Morobe	Cat Electronic Technician (ET)	12 May 2017	6 (60%)	19 (95%)	COMPETENT
4	Billy Richard	Morobe	Cat Electronic Technician (ET)	12 May 2017	10 (100%)	18 (90%)	COMPETENT
5	Davery Tageno	WNBP	Cat Electronic Technician (ET)	12 May 2017	3 (30%)	6 (30%)	NYC
6	Savenat Butinga	ESP	Cat Electronic Technician (ET)	12 May 2017	5 (50%)	13 (65%)	NYC
7	John Ranga	ESP	Cat Electronic Technician (ET)	12 May 2017	2 (20%)	15 (75%)	NYC
8	Jerry Lomoto	WHP	Cat Electronic Technician (ET)	12 May 2017	5 (50%)	17 (85%)	COMPETENT

Certificates will be printed on Friday and delivered locally (POM) and posted on Monday. For further information please contact myself of Andree James – Learning Manager Hastings Deering on 300 8300.

APPENDIX 2

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Basic Hydraulics 0/01/1900
DATE: 8/05/2017 To 11/05/2017
CUSTOMER/BRANCH: PTD Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Savenat Butinga

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					9
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					9
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					9
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					9
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					10
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					10
		TOTAL			66

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 6.6

FINAL TEST RESULT: 50%

Comments: Savenat worked well during the course and I expected him to achieve a higher post test result than he did.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Basic Hydraulics 0/01/1900
DATE: 8/05/2017 To 11/05/2017
CUSTOMER/BRANCH: PTD Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: John Ranga

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					8
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					9
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					9
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					8
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					8
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					9
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					8
TOTAL					59

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.9

FINAL TEST RESULT: 59%

Comments: John was attentive throughout the course and was quite active in practical sessions.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: *Caterpillar Basic Hydraulics* *0/01/1900*
DATE: *8/05/2017* **To** *11/05/2017*
CUSTOMER/BRANCH: *PTD Department Of Works*
LOCATION: *PNG*
INSTRUCTOR: *Kae Karukuru*
STUDENT: *Jerry Lomoto*

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					10
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					10
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					10
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					10
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					10
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					10
TOTAL					70

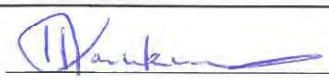
Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 84%

COMMENTS: Jerry was keen to learn and studied hard to achieve a good result.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: *Caterpillar Basic Hydraulics* *0/01/1900*
DATE: *8/05/2017* **To** *11/05/2017*
CUSTOMER/BRANCH: *PTD Department Of Works*
LOCATION: *PNG*
INSTRUCTOR: *Kae Karukuru*
STUDENT: *Richard Rodney*

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					8
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					8
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					8
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					8
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					8
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					8
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					8
TOTAL					56

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.6

FINAL TEST RESULT: 50%

Comments: Richard was not familiar with the machine's hydraulic systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: _____

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Basic Hydraulics 0/01/1900
DATE: 8/05/2017 **To** 11/05/2017
CUSTOMER/BRANCH: PTD Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Davery Tageno

	UNSATISFACTORY 3	SATISFACTORY 6	GOOD 9	VERY GOOD 12	EXCELLENT 15	SCORE
1	Prior Knowledge/Learning					
	a. Understanding of basic Material.					7
	b. Knowledge of Product Principles.					
2	Attitude					
	a. Showed Interest in Subjects.					8
	b. Gave proper effort.					
3	Ability to Learn					
	a. Understood Theory Principles.					7
	b. Retained information once understood.					
4	Communication					
	a. Listened Attentively, Asked Questions.					8
	b. Capable & Willing to Pass on Information to Others.					
5	Participation					
	a. Takes part in discussions.					8
	b. Contributes constructively.					
6	Practical Skills					
	a. Shows desire to be involved in practical work.					8
	b. Demonstrates analytical thinking, uses tools safely and well.					
7	Personal Conduct Score (Mark out of 10)					7
				TOTAL		53

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.3

FINAL TEST RESULT: 44%

Comments: Davery was not familiar with the machine's hydraulic systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: Karukuru

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Basic Hydraulics 0/01/1900
DATE: 8/05/2017 To 11/05/2017
CUSTOMER/BRANCH: PTD Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Wilson Tilil

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					8
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					8
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					8
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					8
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					8
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					8
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					8
TOTAL					56

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.6

FINAL TEST RESULT: 50%

Comments: Wilson was not familiar with the machine's hydraulic systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Basic Hydraulics 0/01/1900
DATE: 8/05/2017 **To** 11/05/2017
CUSTOMER/BRANCH: PTD Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Bernard Popi

	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
	3	6	9	12	15	
1	Prior Knowledge/Learning					
	a. Understanding of basic Material.					10
	b. Knowledge of Product Principles.					
2	Attitude					
	a. Showed Interest in Subjects.					10
	b. Gave proper effort.					
3	Ability to Learn					
	a. Understood Theory Principles.					10
	b. Retained information once understood.					
4	Communication					
	a. Listened Attentively, Asked Questions.					10
	b. Capable & Willing to Pass on Information to Others.					
5	Participation					
	a. Takes part in discussions.					10
	b. Contributes constructively.					
6	Practical Skills					
	a. Shows desire to be involved in practical work.					10
	b. Demonstrates analytical thinking, uses tools safely and well.					
7	Personal Conduct Score (Mark out of 10)					10
				TOTAL		70

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 69%

Comments: Bernard worked well during the course and I expected him to achieve a higher post test result than he did.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE:	Caterpillar Basic Hydraulics			0/01/1900
DATE:	8/05/2017	To	11/05/2017	
CUSTOMER/BRANCH:	PTD Department Of Works			
LOCATION:	PNG			
INSTRUCTOR:	Kae Karukuru			
STUDENT:	Billy Richard			

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					10
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					10
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					10
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					10
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					10
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					10
		TOTAL			70

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 86%

Comments: Billy maintained interest throughout the course and worked very hard to achieve an excellent result.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Electronic Technician (ET) 0/01/1900
DATE: 12/05/2017 To 12/05/2017
CUSTOMER/BRANCH: PTD, Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Savenat Butinga

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					9
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					9
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					9
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					9
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					9
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					9
		TOTAL			64

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 6.4

FINAL TEST RESULT: 75%

Comments: Savenat worked well during the course and I expected him to achieve a higher post test result than he did.

Additional Comments:

SIGNED:

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Electronic Technician (ET) 0/01/1900
DATE: 12/05/2017 To 12/05/2017
CUSTOMER/BRANCH: PTD, Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: John Ranga

	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
	3	6	9	12	15	
1	Prior Knowledge/Learning					
	a. Understanding of basic Material.					8
	b. Knowledge of Product Principles.					
2	Attitude					
	a. Showed Interest in Subjects.					8
	b. Gave proper effort.					
3	Ability to Learn					
	a. Understood Theory Principles.					8
	b. Retained information once understood.					
4	Communication					
	a. Listened Attentively, Asked Questions.					8
	b. Capable & Willing to Pass on Information to Others.					
5	Participation					
	a. Takes part in discussions.					8
	b. Contributes constructively.					
6	Practical Skills					
	a. Shows desire to be involved in practical work.					8
	b. Demonstrates analytical thinking, uses tools safely and well.					
7	Personal Conduct Score (Mark out of 10)					8
				TOTAL		56

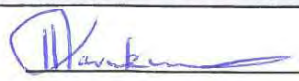
Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.6

FINAL TEST RESULT: 75%

Comments: John was not familiar with the electronic's systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

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COURSE: *Caterpillar Electronic Technician (ET)* *0/01/1900*
DATE: *12/05/2017* **To** *12/05/2017*
CUSTOMER/BRANCH: *PTD, Department Of Works*
LOCATION: *PNG*
INSTRUCTOR: *Kae Karukuru*
STUDENT: *Jerry Iomoto*

	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
	3	6	9	12	15	
1	Prior Knowledge/Learning					
	a. Understanding of basic Material.					10
	b. Knowledge of Product Principles.					
2	Attitude					
	a. Showed Interest in Subjects.					10
	b. Gave proper effort.					
3	Ability to Learn					
	a. Understood Theory Principles.					10
	b. Retained information once understood.					
4	Communication					
	a. Listened Attentively, Asked Questions.					10
	b. Capable & Willing to Pass on Information to Others.					
5	Participation					
	a. Takes part in discussions.					10
	b. Contributes constructively.					
6	Practical Skills					
	a. Shows desire to be involved in practical work.					10
	b. Demonstrates analytical thinking, uses tools safely and well.					
7	Personal Conduct Score (Mark out of 10)					10
			TOTAL			70

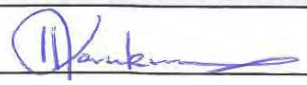
Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 85%

COMMENTS: Jerry now has a better understanding of the system covered. Excellent result.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: *Caterpillar Electronic Technician (ET)* *0/01/1900*
DATE: *12/05/2017* **To** *12/05/2017*
CUSTOMER/BRANCH: *PTD, Department Of Works*
LOCATION: *PNG*
INSTRUCTOR: *Kae Karukuru*
STUDENT: *Richard Rodney*

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					8
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					8
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					9
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					8
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					9
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					8
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					8
TOTAL					58

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.8

FINAL TEST RESULT: 75%

Comments: Richard was not familiar with the electronic's systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: Karukuru

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Electronic Technician (ET) 0/01/1900
DATE: 12/05/2017 **To** 12/05/2017
CUSTOMER/BRANCH: PTD, Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Davery Tageno

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					8
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					8
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					8
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					8
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					8
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					9
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					8
			TOTAL		57

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.7

FINAL TEST RESULT: 30%

Comments: Davery was not familiar with the electronic's systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Electronic Technician (ET) 0/01/1900
DATE: 12/05/2017 To 12/05/2017
CUSTOMER/BRANCH: PTD, Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Wilson Tilili

	UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
	3	6	9	12	15	
1	Prior Knowledge/Learning					
	a. Understanding of basic Material.					8
	b. Knowledge of Product Principles.					
2	Attitude					
	a. Showed Interest in Subjects.					8
	b. Gave proper effort.					
3	Ability to Learn					
	a. Understood Theory Principles.					8
	b. Retained information once understood.					
4	Communication					
	a. Listened Attentively, Asked Questions.					8
	b. Capable & Willing to Pass on Information to Others.					
5	Participation					
	a. Takes part in discussions.					8
	b. Contributes constructively.					
6	Practical Skills					
	a. Shows desire to be involved in practical work.					8
	b. Demonstrates analytical thinking, uses tools safely and well.					
7	Personal Conduct Score (Mark out of 10)					8
			TOTAL			56

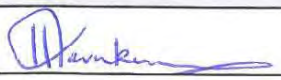
Rating Based on perfect ten (10)

Student Rating = Total x .10 = 5.6

FINAL TEST RESULT: 55%

Comments: Wilson was not familiar with the electronic's systems, he found some sections of the course difficult.

Additional Comments:

SIGNED: 

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE: Caterpillar Electronic Technician (ET) 0/01/1900
DATE: 12/05/2017 **To** 12/05/2017
CUSTOMER/BRANCH: PTD, Department Of Works
LOCATION: PNG
INSTRUCTOR: Kae Karukuru
STUDENT: Bernard Popi

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					10
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					10
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					10
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					10
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					10
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					10
TOTAL					70

Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 95%

Comments: Bernard maintained interest throughout the course and worked very hard to achieve an excellent result.

Additional Comments:

SIGNED:

TRAINING STUDENT RATING

The student rating report is based upon the overall ability of the student as demonstrated throughout the course. The instructor's ratings are based on personal conduct, for the duration of this course, and applies to this course only. As soon as possible, the student should be given additional experience on equipment included in the course content. This serves to reinforce knowledge and skills acquired during the course.

COURSE:	Caterpillar Electronic Technician (ET)			0/01/1900
DATE:	12/05/2017	To	12/05/2017	
CUSTOMER/BRANCH:	PTD, Department Of Works			
LOCATION:	PNG			
INSTRUCTOR:	Kae Karukuru			
STUDENT:	Billy Richard			

UNSATISFACTORY	SATISFACTORY	GOOD	VERY GOOD	EXCELLENT	SCORE
3	6	9	12	15	
1 Prior Knowledge/Learning					
a. Understanding of basic Material.					10
b. Knowledge of Product Principles.					
2 Attitude					
a. Showed Interest in Subjects.					10
b. Gave proper effort.					
3 Ability to Learn					
a. Understood Theory Principles.					10
b. Retained information once understood.					
4 Communication					
a. Listened Attentively, Asked Questions.					10
b. Capable & Willing to Pass on Information to Others.					
5 Participation					
a. Takes part in discussions.					10
b. Contributes constructively.					
6 Practical Skills					
a. Shows desire to be involved in practical work.					10
b. Demonstrates analytical thinking, uses tools safely and well.					
7 Personal Conduct Score (Mark out of 10)					10
			TOTAL		70

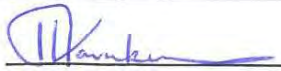
Rating Based on perfect ten (10)

Student Rating = Total x .10 = 7

FINAL TEST RESULT: 90%

Comments: Billy achieved an excellent result due to his effort and attitude towards training.

Additional Comments:

SIGNED: 

Evaluations from Participants

Company Name: JICA Consulting Division Ingérosec Corporation
Dates Conducted: 8-11/05/17 and 12/05/17
Notes: Nil
Report Produced by: Andree James

The following report is feedback provided by the participants back to the trainer on the two courses given Basics in Hydraulics and Electronic Technician. Overall no surprises. It is common for students that do not have the experience or exposure to topics wanting more time. Students like being in training where it is relevant and want it all. Papua New Guineas like to try and master the topics before the classroom not understanding that mastery comes with practice and integration in the workplace with a strong operational leader.

Basics In Hydraulics – 4 days (Normal Program length 5 days)

Criteria									Total	Agreement	Average
Pace	3	4	4	4	4	4	4	4	31	92%	3.88
Length	4	3	4	4	3	4	3	4	29	88%	3.63
Clear and Understandable	3	4	4	4	4	4	4	4	31	96%	3.88
Content	4	4	4	4	3	4	4	4	31	94%	3.88
Value of concepts	4	4	4	4	5	5	4	5	35	94%	4.38
Enjoyable	4	4	4	4	4	4	4	5	33	94%	4.13
Effectiveness	4	4	4	4	4	5	4	5	34	91%	4.25
Would you recommend to others?	4	4	4	4	5	4	4	5	34	94%	4.25
Course leader knowledge	4	4	4	4	5	4	4	4	33	93%	4.13
Learning Environment	4	4	4	4	5	4	4	4	33	92%	4.13
Courser leader genuinely cared about your learning	4	4	4	4	5	4	4	4	33	93%	4.13
Explained Activities and gave direction	4	4	4	4	4	4	4	5	33	93%	4.13
Asked questions	4	4	4	4	4	4	4	5	33	92%	4.13
Conducted meaningful discussions	4	4	4	4	5	5	4	5	35	95%	4.38
Helped to see job application	4	4	4	4	4	5	4	5	34	94%	4.25
Well prepared	4	4	4	4	5	5	4	5	35	95%	4.38

Two comments from Mr Richard Rodney “Could extend the program” and “Learnt more new things”.
Mr Davery Tageno said “Good but rushed through due to time factors, too short, not enough practical”

Electronic Technician and SIS

Criteria									Total	Agreement	Average
Pace	2	5	4	4	4	4	4	3	30	92%	3.86
Length	2	3	3	3	4	4	3	3	25	88%	3.14
Clear and Understandable	2	4	4	4	4	4	4	3	29	96%	3.71
Content	2	4	4	4	4	4	4	4	30	94%	3.71
Value of concepts	2	4	5	4	4	4	5	4	32	94%	4.00
Enjoyable	2	4	4	4	4	4	5	4	31	94%	3.86
Effectiveness	2	4	4	4	4	5	5	4	32	91%	4.00
Would you recommend to others?	2	4	5	4	5	5	5	4	34	94%	4.29
Course leader knowledge	3	4	4	4	5	5	4	4	33	93%	4.14
Learning Environment	3	4	4	4	5	5	4	4	33	92%	4.14
Courser leader genuinely cared about your learning	2	4	5	4	5	5	5	4	34	93%	4.29
Explained Activities and gave direction	2	4	5	4	5	5	4	4	33	93%	4.14
Asked questions	2	4	5	4	5	5	4	4	33	92%	4.14
Conducted meaningful discussions	2	4	4	4	5	5	4	4	32	95%	4.00
Helped to see job application	2	4	5	4	5	5	4	4	33	94%	4.14
Well prepared	3	4	5	4	5	4	5	4	34	95%	4.29

Mr Bernard Popis said "Too short, needs more practical, Not really understood use of laptop for 'Pace', 'Length' and 'Clear and Understandable'. But then went to say "Good, yes, yes, yes, yes" to most other questions. So the information conflicts between score and commentary. By his own admission it suggests he simply did not understand the program which would have been very frustrating for him however his results were the highest. It is common for people to think 1 and 2 are the higher scores so perhaps he got them muddled up, but didn't in Basics in Hydraulics. I am unable to interpret this evaluation.

3	Bernard Popi	Morobe	Cat Electronic Technician (ET)	12 May 2017	6 (60%)	19 (95%)	COMPETENT

For further information please contact myself of Andree James – Learning Manager Hastings Deering on 300 8300.

Hastings Deering CAT

APPENDIX 4

OPERATIONAL SAFETY INDUCTION
Operational Employee/Contractor

Product ... Commitment

Employee Name: ANDREW PAT	**Position Title:** LEGAL ASSISTANT ENGINEER
Branch:	**Department:** [redacted] TRAINING
Start Date: 08 - MAY - 2017	**Reports To:** [redacted] KAE KARUKURU

Discussion Item	Confirm(✓)
Operational Work Area	
Overview of work area layout and orientation	✓
PPE Requirements in operational areas	✓
Contraband Items (Only applicable to Expanded Mining Products – Underground)	✓
Hazard Identification and Management	
Take 5 and JHA (explain that Take 5's are mandatory for every job task and training will be provided)	✓
Identify the significant Work area hazards and hazard controls (i.e. Working @ height, hot work, chemical storage, situational awareness)	✓
Reporting of hazards, incidents injuries, faulty tooling and equipment. (Explain obligations and procedures/paperwork encourage reporting)	✓
Permits and Authority to Operate	
Hot work procedures and permits, hot work map local hot work and prohibited areas	✓
Special Permit Requirements: Confined Space Entry, Working at Heights, Forklift/Crane operation etc.	✓
Isolation and tagging procedures (explain that they are mandatory and are part of the Life Saving Commitments. Explain the procedure and ask the employee to demonstrate their understanding of the procedure)	✓
Movement of plant and authority to operate system. Explain the procedure	✓
Operating Procedures	
Safe movement of components according to procedures. Explain the procedure	✓
Safe manual handling practices for the work done in the section. Identify risky manual handling tasks and equipment used to reduce manual handling tasks. Get the employee to demonstrate the use of such equipment	✓
Safe operation of plant / equipment used (not operator training). Safe operation of plant can include forklift movement, press operation, crane movements, hammers etc.)	✓
Tooling	
Use of correct tooling for the task involved and explain the process for drawing and returning tools from the toolstore.	✓
Safe operation of tooling used. Explain SWI and get employee to demonstrate safe operation of tooling. (i.e. lathes, grinders, presses and other tooling)	✓
Audit of employee toolbox for non-approved/ fabricated tooling. I.e. chicken bars, homemade drifts and punches, steel hammers over 1 kg, non-certified lifting equipment, C spanners	✓
Housekeeping	
Contamination Control (CC) and housekeeping requirements (confirm that training will be needed)	✓
Environmental aspects and impacts (e.g. spill procedures, spill kit location and use)	✓
Operational Safety Systems	
Pre-shift START meetings (when held, obligation to attend, notice boards, timings and how often they are run)	✓
First Aiders and Health and Safety Representatives (identification / introduction)	✓
Explanation of Safe Act Observations / Safety Interactions (explain who performs them and why they are performed, engagement is encouraged)	✓

Note:
Safety training for operation staff is mandatory and must be attended as soon as possible following the Operational Safety Induction and your commencement. Operational employees are considered those employees who are required to perform their duties in a workplace which has numerous hazards. For example: workshops; warehouses and mines etc. Please completed the Area/Section Induction checklist available on company documents or for further information, please contact your SQM representative

Induction Confirmation

Confirmation of Operational Safety Induction Completion (Employee sign-off)
I confirm I have completed the operational safety induction with my manager, supervisor and/or other delegated staff member.

Inductee Name:
Signature : _____ 8/4/17

Inductors Name (Manager/ Supervisor or delegated authority Name):
I confirm that the induction has been provided and certify that the above mentioned employee has completed the operational safety induction.

Signature : _____ __/__/__

Please forward this form to your local training coordinator, who will enter the data in to Intuition.

Once entered in to Intuition, please forward completed forms to Group Human Resources, Fairfield Road Brisbane

APPENDIX 5

Consequence Ranking Table

Ranking	Health & Safety	Environment	Plant & Property Damage
5. Catastrophic	Fatality	Long Term environmental impact causing significant harm to the surrounding ecosystem.	Major damage to plant or a facility resulting in potential costs >$1m.
4. Major	LTI > Permanent Disabling Injury	Serious medium term environmental effects having an impact on the surrounding ecosystem.	Serious damage to major plant or a facility costing between $100,000 to $1m.
3. Moderate	Restricted Work Injury	Moderate short term impact not affecting surrounding ecosystem function.	Significant damage to plant equipment or a facility costing between $10,000 to $100,000.
2. Minor	First Aid/ Medical Treatment Injury	Low short term impact with limited damage to minimal area of low significance.	Minor plant and equipment damage requiring repairs or replacement costing $1,000 to $10,000.
1. Insignificant	No injury or no medical treatment	Minimal impact to immediate surrounds and no ongoing impacts.	<$1,000 damage to plant and equipment.

Likelihood Ranking Table

Score	Rating	Probability of Occurrence	Chances of Risk Happening
5	Almost Certain	>75%	Is expected to occur in most cases
4	Likely	>50% - 75%	Will probably occur in most circumstances
3	Possible	>25% - 50%	Might occur at some time
2	Unlikely	>5% - 25%	Could occur at some time
1	Rare	>5%	May occur only in exceptional circumstances

Risk Ranking Matrix

Likelihood	1	2	3	4	5
5	M	H	H	E	E
4	M	M	H	H	E
3	L	L	M	H	H
2	L	L	L	M	H
1	L	L	L	M	H

Consequence

Take 5 Record

065051

Work Order #: ..... Date: 7/12/2016

Task Description: Demonstrate ET Function to Customers

Have You Read & Understood The Disassembly & Assembly (D&A) Procedure For This Job Tas

☐ IF YES - Continue ☐ IF N/A - Continue ☐ IF NO - STOP - Read and understand the D&A procedure before proceedi with the job task

	Tick if applicable YES	NO		Can I manage this haza YES
1.		✓	**Could anyone be caught in, on or between anything?**	
2.		✓	Can I strain or over exert myself?	
3.		✓	**Does anything need to be isolated & tested for dead?**	
4.		✓	Could anyone/I come into contact with something that may harm them like heat, gas, fumes, electricity, chemicals, or stored energy (water or gas under pressure)?	
5.		✓	**Can I damage any equipment?**	
6.	✓		Can I fall from any height?	✓
7.		✓	**Can I slip or trip on anything?**	
8.		✓	Is the tooling correct for the job/task?	
9.		✓	**Is there a chance I could spill or pollute something?**	
10.		✓	Am I concerned that something may fall on anyone/me or strike them?	
11.	✓		**Do I need to communicate to my surrounding workmates the risks associated with the task?**	✓
12.	✗	✓	Could there be any uncontrolled movement?	
13.		✓	**Is my PPE fit for purpose and appropriate for the task?**	

If you ticked Yes to managing a hazard, the controls must be listed below and residual risk score recorded.
If you ticked No to managing a hazard a JSEA MUST be completed.

Question Number	Control measures put in place	Residual Risk Scor
6	Use 3 point of contact	L3
10	Positive communication with all team member	VL2
12		

Print Name: KAE KARUKURU Date: 7/12/2016

Is a JSEA available for this job? Y ☐ N ✓

A risk score of medium (M) or more, may require further control and a JSEA must be developed and approved before commencing the activity

HDAL-SHEQ-1
P# 1