



Building Design Authority (P) Ltd

in joint Venture with

B.N. Consultancy Pvt. Ltd and

PLUSH Engineering & architects (P) Ltd Kathmandu.

Monthly Progress Report

Regional Urban Development Project (RUDP)

Project Implementation Unit

Biratnagar, Nepal



April 2018

Biratnagar Metropolitan City (BMC), Nepal

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1. EXECUTIVE SUMMARY

This Project Monitoring Report mainly covers the Progress achieved in the component of Regional Urban Development Project (RUDP) in Biratnagar Metropolitan City, Nepal. The information has been provided by following Chapters as mentioned below.

1. **Introduction/ Background-** It provides brief Account of the Project and its Background stating why, how and when the Project was started in Biratnagar Metropolitan City.
2. **Salient Feature of Contract Package: RUDP/ICB/BRT/2-** It provides brief Account of Contract Data with Major components of works to be carried out.
3. **Sub Project Components-** It provides brief Account of various Sectors of the Project component summarizing the respective Progress such as Sewer Line, Storm Water Drain, Road side Drain, Roads and Lanes and Electrification Work if any. This Chapter further covers Environment Mitigation Measures and Social Safeguard measures.
4. **Objective and Scope of Works-** This Chapter briefly describes the expected output of the Project and Scope of Consultant regarding execution of Work.
5. **Progress of Sub – Project Components-** This Chapter comprises the status of Work stating what kind of work is being under Progress and how much Progress has been achieved till date. It further elaborates on the status of actual achievement versus the Targeted achievement till date. Having said that, the Progress may get affected by unpredicted events frequently occurring in case of our Country Nepal so such events are also enlisted for viewing the reasons behind affected Progress.
6. **Details of Pre Cast Activities-** Details of Precast activities are also provided in this Chapter in order to demonstrate the Progress by the Contractor. Since in Urban Sector the Work is required to conduct in speedy manner, Precast work is best alternate to be provided. Hence, the details of Precast activities have been provided in order to determine whether the Contractor is able to meet the Schedule or not.
7. **Contractor's Manpower and Contractor's Equipment-** Chapter 8 and Chapter 9 deal with summary of Manpower and Equipment stating whether Resources owned by the Contractor are sufficient for the execution of Contract. The Resource owned by the Contractor has met 100% expectancy with respect to its targeted schedule for the month of April 2018 whether it is in the case of usage of Labour or Equipment. However, the Contractor seemed unable to manage the Resources in order to achieve the Target this month.



2. PROJECT DESCRIPTION

2.1 INTRODUCTION/BACKGROUND

GoN has negotiated loan with Asian Development Bank for the Regional Urban Development Project (RUDP) in Nepal. The RUDP, in the line with ADB's water and urban operation plans, will construct and upgrade urban infrastructure in eight towns in the Terai Region of Nepal, improve operational effectiveness of these eight municipalities. The project will also build institutional capacity of DUDBC for urban planning, project planning and project preparation in order to proactively shape urbanization in Nepal and implement the National Urban development strategy. Biratnagar is one of the eight municipal towns included in the RUDP. The subcomponent of the RUDP covers the construction and improvement of sewerage, drainage and roads and design of Integrated Solid Waste Management System for Biratnagar Municipality. Building Design Authority (P) Ltd (Nepal), B.N. Consultancy Pvt.ltd and PLUS Engineers & Architects (P) Ltd Kathmandu and have entered for a Contract of Consulting Services with Regional Urban Development Project (RUDP), Project Implementation Unit(PIU), Biratnagar Metropolitan City on 28th August 2017.

Regional Urban Development Project (RUDP the Department of Urban Development and Building Construction (DUDBC), under the Ministry of Urban Development(MUD) through the Government of Nepal (GoN) has received the loan from Asian Development Bank (ADB) Loan 47252-NEP.

In line with ADB's Strategy 2020 and based on Nepal's fundamental long term needs and on the GoN's priority, the ADB is continuing to support the Government in (i) improving urban infrastructure; improving access to water supply and sanitation (ii) supporting urban environmental improvement(iii) strengthening the operation and management skills of local governments. The Regional Urban Development Project (RUDP) is forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.



3. CONTRACT data: - RUDP/ICB/BRT/2

General Features	
Name of Project	Regional Urban Development Project(RUDP)
Executing Agency	Government of Nepal,
	Ministry of Urban Development
	Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Construction and Completion of Sewerage, Drainage, Road, Footpath and Road furniture works
Contract No.	RUDP/ICB/BRT/2
Location	Biratnagar Metropolitan City, Biratnagar
Consultant	Building Design Authority (P) LTD in Joint Venture With B.N. consultancy Pvt and PLUS Engineers and Architects (P) Ltd Kathmandu.
Date of Sign of Design and Supervision Consulting Service	28th August 2017
Date of Commencement of Design and Supervision Consulting Service	6th September 2017
Date of Completion	5th September 2020
Contractor	ZHONGHENG Construction Group International Engineering co Ltd. Beijing, China.
Date of Agreement Made	10 th October 2017
Date of Commencement	2 nd November 2017
Date of Completion	1 st November 2019
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Progress	
Road Improvement (Asphalt)	6.86%
Sewer Line	20.14%
Storm Drain	63.56%
Road Side Drain	33.84%
Physical Progress up to date	Planned : 19.71% , Actual : 17.50%; Lag by 2.21% S curve attached



4. Summary of Progress Status of all major components

S.No	Description	Unit	BoQ Quantity	Progress up to date	Remarks
1	Sewer Line				
a	HDPE/RCC	m	20082	4045	20.14%
b	Manhole	No.	656	136	20.73%
2	Storm Water Drain				
a	RCC Drain	m	652	415	63.65%
b	Piles	No.	132	138	100%
3	Road				
a	Subgrade	m	73086	18862	25.81%
b	Subbase	m	73086	17199	23.53%
c	Base	m	73086	18576	25.42%
d	Prime	m	73086	5547	7.59%
e	Asphalt	m	73086	5017	6.86%
4	Road Side Drain	m	26050	8814	33.83%



5. SUB PROJECT COMPONENTS

5.1 SEWER LINES

Surveying works going on after identifying the all sewer lines i.e. T1, T2, T3, and T4. Production of manhole cover, precast are also going on. Laying of RCC Hume pipe as well as HDPE are going on at T3 Trunk line, T3 line 6A, T3 line 11 etc

Table 1: PROPOSED SEWER LINES

S. NO.	Description	Unit	Original Quantity
1	Sewerage Pipe Supply and Installation	m	20,082.00
	Reinforced Concrete Pipe laying and jointing		2241.00
	Line T2 (Secondary)	m	206.00
	Line T3 (Trunk)	m	1905.00
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	17,841.00
	Line T1 (Secondary)	m	1,825.00
	Line T2 (Secondary)	m	3,927.00
	Line T3 (Secondary)	m	9,997.00
	Line T4 (Secondary)	m	2,902.00
2	Manhole (Brick / RCC)	no.	685.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	73.86
6	Road side Drain	Km	26.05
7	Storm Water Drain	m	652.8



Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till April, 2018

SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	
1	Hume pipe(T2)	206	6							
2	Hume pipe(T3)	1905	58			172		172		
3	Hume Pipe (T4)	130	4	326	11	0	0	326	11	
	Subtotal in (m)	2241	68	326	11	172	0	498	11	
1	HDPE(T1)	1825	57			208	6	208	6	
2	HDPE(T2)	3927	147	919	31	648	24	1567	55	
3	HDPE(T3)	9997	316	665	25	541	19	1206	44	
4	HDPE(T4)	2092	68	566	14	0	0	566	14	
	Subtotal in (m)	17841	588	2150	76	1397	49	3547	119	
	Total	20082	656	2476	87	1569	49	4045	136	20.14%
	Sewer Inlet	BoQ(no)		Up to Pre Month		This month		Total to date		Progress %
1	Sewer inlet	1010								
2	House connection	3784								



5.2 STORM WATER DRAIN

The storm water drain CN2, and CN3 has been provisioned in Regional Urban Development Project (RUDP). The Contractor has already started construction of storm water drain. The construction of drain works is going on and piling works have been completed. The detail of the progress is shown in the table below:

Table:-3 PROPOSED and PHYSICAL PROGRESS in STORM WATER DRAINS TILL April, 2018.

SN	Location	Proposed Length in (m)	Progress		Total till date (m)	Progress %
			Up to previous month in (m)	This month in (m)		
1	Chyangbari Nala	652.89	325	90	415	Construction of drain works going on (63.56% completed)
2	Chyangbari Nala	132 nos piles	138	-	138 nos	Piling works completed

5.3 ROADS AND LANES

Most of the roads/lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement where as some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. The Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads length 73.86 km. The Contractor has started detail survey work for upgrading the deteriorated pavement surface.

Table No:-4 PROPOSED and PHYSICAL PROGRESS of pavement works till April, 2018

SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
1	R3A	Madhumara Marg	600	600	0	600	(100%)Sub grade,
2	R42	Bhagwati Marg	218	218	0	218	(100%)Sub grade,
3	R104	VIP Marg	273	273	0	273	(100%)Sub grade
4	Rani site	Rani	4023	1702	0	1702	(42.30%)Sub grade,
5	R37	Banglamukhi Marg	420	471	0	471	(100%)Sub grade,
6	R5	College Road	970	970	0	970	(100%)Sub grade,
7	R16	Satya Marg	604	575	29	604	(95.2%)Sub grade,
8	R21	Pratibha Marg	1320	1320	0	1320	(71.96%)Sub grade,
9	R25	Devi Marg	599	580	0	580	(96.82%)Sub grade,
10	R24	Prabhat Marg	384.41	380	0	380	(98.71%)Sub grade,
11	R28	Pustakalaya Marg	635	586	49	635	(100%)Sub grade,
12	R27	Peepal Marg	810	810	0	810	(100%)Sub grade,



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
13	R26	Pasang Marg	617	617	37	617	(100%)Sub grade
14	B1	Kanchan-Kesalya Marg	1172.94	1173	0	1173	(100%)Sub grade,
15	B2	Chadani Marga/Shiromani Patha/Shiva-Gauri Shankar Marg	2777.83	2152	0	2152	(77.5%)Sub grade,
16	B3	Keshaliya Marg	1574	1574	0	1574	(100%)Sub Grade ,
17	S11	Samrat Marg	660	660	0	660	(100%)Sub Grade,
18	S13	Sumarga/Puspa Marga	1617	1417	0	1417	(87.63%)Sub Grade,
19	R114	Dharanidhar Marg	320	320	0	320	(100.00%) Sub Grade,
20	R12	Kanchha Dai Marg/Sukra Patha	1192	837	0	837	(70.21%)Sub Grade
21	R5a	Satya narayan Marga	370	370	0	370	(100%)Sub Grade
22	R113	Kavi Lekhnath Marg	420	420	0	420	(100%)Sub Grade
23	R65	Satgumti Marga	282	320	0	320	(100%)Sub Grade
24	R107	Samudhaya Patha	170	170	0	170	(100%)Sub Grade
25	R107 a		50	50	0	50	(100%)Sub Grade
26	R24	Prabhat Marg	384.41	380	0	380	(99.00%)Sub Base
27	R25	Devi Marg	599	580	0	580	(96.83%)Sub Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
28	R26	Pasang Marg	617	580	37	617	(100%)Sub Base
29	R27	Peepal Marg	810	580	230	810	(100%)Sub Base
30	R28	Wachanalaya Marga	635	343	0	343	(54.00%)Sub Base
31	Rani site	PrajantraMarga/Rajabirat Marga/Manda Marga/Taxi Stand Marga/Panchawati/New Mahendra Marga	4023	1702	0	1702	(42.3%)Sub Base
32	R37	Banglamukhi Marg	420	471	0	471	(100%)Sub Base
33	R65	Satgumti Marga	282	320	0	320	(100%)Sub Base
34	R42	Bhagwati Marg	218	218	0	218	(100%)Sub Base
35	R104	VIP Marg	273	273	0	273	(100%)Sub Base
36	B1	Kanchan-Kesalya Marg	1172.94	1150	23	1173	(100%) subbase
37	B2	Chadani Marga/Shiromani Patha/Shiva-Gauri Shankar Marg	2777.83	1448	0	1448	(77.47%) Sub Base
38	S11	Samrat Marg	660	660	0	660	(100%) Sub Base
39	S13	Sumarga/Puspa Marga	1616.26	1417	0	1417	(187.63%)Subbase
41	R12	Kanchha Dai Marg	1192	837	0	837	(70.22%)Sub Base
43	R5	College Road	970	970	0	970	(100.00%)Sub Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
44	R16	Shiv Marg	604	575	29	604	(100%)Sub Base
45	R21	Pratibha Marg	1320	950	0	950	(71.96%)Sub Base
46	B3	Keshaliya Marg	1574	1574	0	1574	(100%)Sub Base
47	R3A	Madhumara Marg	600	600	0	600	(100%)Sub Base
48	R107	Samudhaya Patha	170	170	0	170	(100%)Sub Base
49	R107a		50	50	0	50	(100%)Sub Base
50	R5a	Satyanarayan Marga	370	370	0	370	(100%)Sub Base
46	B1	Kanchan-Kesalya Marg	1172.94	1150	23	1173	(98.04%) Base
47	B2	Chadani Marga/Shiromani Patha/Shiva-Gauri Shankar Marg	2777.83	2152	0	2152	(100%) Base
48	B3	Keshaliya Marg	1574	1574	0	1574	(100%) Base
49	S11	Samrat Marg	660	660	0	660	(100%) Base
50	S13	Sumarga/Puspa Marga	1617	1417	0	1417	(87.63%) Base
51	R114	Dharanidhar Marg	320	320	0	320	(100.00%) Base
52	R12	Kanchha Dai Marg	1192	660	177	837	(70.22%) Base
53	R113	Kavi Lekhnath Marg	420	420	0	420	(100%) Base
54	R5	Purano College Road	970	603	367	970	(100%) Base
55	R16	Satya Marg	604	604	0	604	(100%) Base



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total till date	Progress %
				Upto previous month	This month		
56	R21	Pratibha Marg	1320	1320	0	1320	(100%)Base
57	R24	Prabhat Marg	384.41	380	0	380	(100%) Base
58	R25	Devi Marg	599	580	0	580	(96.82%) Base
59	R26	Pasang Marg	617	580	0	580	(94%) Base
60	R27	Peepal Marg	810	580	0	580	(71.61%) Base
61	R28	Wachanalaya Marg	635	635	0	635	(54.44%) Base
65	R37	Banglamukhi Marg	477	471	0	471	(100%) Base
66	R3A	Madhumara Marg	600	600	0	600	(100%) Base
67	R42	Bhagwati Marg	218	196	22	218	(100%) Base
68	R104	VIP Marg	273	273	0	273	(100%) Base
69	Rani	Rani	4023	1702	0	1702	(42.30%) Base

Table No:-4.1 Road improvement Works (Work Progress till the date)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73086	18747	115	18862	25.8%
2	Sub Base	m	73086	16880	319	17199	23.53%
3	Base	m	73086	18010	566	18576	25.41%
4	Prime	m	73086	2177	3370	5547	7.59%
5	Asphalt	m	73086	1070	3947	5017	6.86%



5.4 ROAD SIDE DRAIN

The Road side drain at various location has been provisioned in Regional Urban Development Project (RUDP). The proposed length of Side drain works is 26.05 Km among which the contractor has already completed **8.814 Km**.

Table No:-4a PROPOSED and PHYSICAL PROGRESS of Road side drain works till April 2018.

SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
1	B1	Kanchan-Kesalya Marg	-	90	-	90	100.00%
2	R29	Shanti Marg	620	540	-	540	87.10%
3	N36		-	316	-	316	100.00%
4	R8	APF	540	460	-	460	100.00%
5	R7	Manakamana Marg	480	180	137	317	66.04%
6	R9	Fanindra Marg	240	208	-	208	86.67%
7	S13	Sumarga/Puspaga Marg	110	110	-	110	100.00%
8	N33		-	70	-	70	
9	R28	Pustakalaya Marg	640	270	-	270	42.18.00%
10	R90	Shakti Marg	620	620	-	620	100.00%
11	R114	Dharanidhar Marg	530	530	-	530	100.00%
12	R18		762	762	-	762	100.00%
13	R17		680	340	-	340	50.00%
14	R113	Kavi Lekhnath Marg	-	200	-	200	
15	R77	Arniko Marg	160	160	-	160	100.00%
16	R76	Mitra Marg	540	540	-	540	100.00%
17	N9	Fanindra Marg	480	240	340	580	100.00%
18	N4		250	125	-	125	50.00%
19	R33	Tarun Marg	354	177	-	177	50.00%
20	R36	Gaurav Marg	450	225	-	225	50.00%
21	R86	Janpath Marg	400	200	172	372	93.00%
22	R183	Nava Jyoti Marg	328	164	236	400	100.00%
23	R7(A)	Manakamana Marg	150	75	-	75	50.00%
24	Rani site	Rani	340	170	-	170	50.00%



SN	Road Number	Road Name	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
25	Rani site	Rani	200	100	-	100	50.00%
26	N3		450		225	225	50.00%
27	N5		76		81	81	100.00%
28	R21	Prativa Marga	207		205	205	100.00%
29	Xenial Front	Nava Jyoti Marg	440		220	220	50.00%
30	R75	Tintoliya Marga	135		226	226	100.00%
31	R122	Amar Marga	268		100	100	37.31%
32	Remaining		15600				
	Total		26050	6872	1,942	8814	33.83%

5.5 ENVIRONMENTAL ASPECT

The environment has been defined to mean surrounding area including human and natural resources to be affected by execution and after completion of works. the Contractor shall take all precautions for safeguarding the environment during the course of the construction of the works. He shall abide by all prevalent laws, rules and regulations governing pollution and environmental protection mitigation measure specified in the latest publication of “Environmental Management Guidelines” published by the GoN and Projects Environmental management plan.

The Contractor shall prohibit employees from unauthorized use of explosives, poaching wildlife and cutting trees. The contractor shall be responsible for the action of his employees. Environmental protection works, among others, shall also include the following.

Borrow/ quarry sites.

The engineer shall have the power to disallow the method of construction and / or the use of borrow or quarry area, if in this opinion, the stability and safety of the works or any adjacent structure is endangered, or there is undue interference with the natural or artificial drainage or the method or use of area will promote undue erosion.

Disposal of Spoil and Construction Waste.

Material excess of the requirements for permanent works and unsuitable materials shall be disposed off in location and in the manner as agreed with the Engineer. The location of disposal site shall be such as not to promote instability, destruction of properties and public service system. Exposed area of such disposal site shall be suitably dressed and be planted with suitable vegetation.

Provision and maintenance of Camps/Office/Stores/Equipment.

Various works defined under this item are related to provision a maintenance camps for work person and employees, Contractor’s site office, stores equipment yards and workshops. The camps must be adequate rain roof, Spacious, airy, and hygienic with proper lighting and



material storage facilities. The area shall be kept neat and clean etc.

Provision and maintenance of Toilets.

Provision of toilets for labour and employees shall be made to avoid public nuisance as well as pollution of water courses and air. The Contractor shall construct suitable septic tanks and soak pit along with rooms of pit type latrines. Sufficient water must be provided and maintained in the toilets.

Crushing plants.

Crushing plants shall be located away from the population centers, water intakes, and should not disturb the sensitive echo system. Suitable dust control device shall be fitted to the crusher to control emission of dust from the plant etc.

Hot mix plants and Batching plants.

Hot mix plant and batching plant shall be located away from the population centers. The Contractor shall take every precaution to reduce levels of noise, vibration, dust and emission from his plants. No Bituminous material shall be discharged in to drains, nearby trees vegetation, property shall be protected during spray of bitumen etc.

Occupational Health and Safety Measures

The contractor shall provide personnel protective equipment (PPE) (Helmet, Boots, masks, gloves, jacket, protective glasses etc.) to use. Public notification, safety and warning signs and informative signboards in working sites for work safety shall be provided. The DSC engineer and DSC Environmental safeguard expert supervise and monitor the use of PPEs and other necessary safety measures regularly.

The project is environmental improvement project and mainly constitutes works on sewerage and drainage improvement works in BMC besides others. As per ADB guide lines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Regulation, 2054 BS, First Revised (2055 BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule3). The final report on IEE was submitted and MoUD had approved the IEE on May14, 2013.

Installation of functioning sewers and functioning drainage system including roads/lanes improvement in BMC does not possess any adverse environmental impacts to its surrounding. In fact, these will greatly enhance the living conditions/hygiene of the inhabitants and facilitate transportation. Nevertheless, it is imperative to look into positive as well as negative impacts of such infrastructure development works in the urban area.

Training and awareness program regarding health, safety and disease at labour camps and yards on 3 and 4 March 2018 by Safety Prevention Officer Er. Dhiraj Sardar.

A regular monitoring visit by DSC was carried out regularly and a standard site specific environmental monitoring checklist was used to record the present status of the project and verified whether or not the EMP is compiled. A sample of environmental checklist is attached herewith as Annex.



5.6 SOCIAL ASPECT

Regional Urban development Project (RUDP) in Biratnagar has implemented to improve the quality of life and help to achieve higher and more socially inclusive economic growth of people through effective, efficient, and reliable delivery of improved and affordable municipal services. Infrastructure development of drainage and sewerage system as well as roads and lane improvement are the major components of RUDP in Biratnagar Metropolitan City (BMC). Establishment and functioning of Social Safeguard Desk in PIU is a major milestone of social development aspect which has been effective to address all social/ community development issues and concerns with active initiation of the DSC. Local labours have been deployed in civil construction works (i.e. in Road side drain / Sub grading works). The Engineer has issued the format of Social Safeguard Monitoring plan which is attached here with.

Status of Social and Environmental Safeguard Measures

The implementation of Social and Environmental safeguard measures is improving and found satisfactory in this month.

The Social safeguard Desk is fully functioning. No such severe problems have been registered till date.

5.7 FINANCIAL PLAN

The Sub-project cost will be disbursed in three years starting from FY2074/2075 to 2076/2077

6. DISBURSEMENT RECORDS IN CONSTRUCTION

SN	Description of Payment	Total Bill Amount with VAT & PS	Remark
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Table:-5 DISBURSEMENT RECORDS in CONSTRUCTION

1	IPC 01	339,106,000.00	Mobilization Advance.
	IPC 02	265,347,611.64	Up to March 2018 excluding mobilization advance
	Total	265,347,611.64	
	Grand Total =	604,453,611.64	

7. OBJECTIVES AND SCOPE OF WORKS

7.1 OBJECTIVES

The following are the expected physical infrastructure improvement outputs of the project in Biratnagar:

- Drainage and sewerage systems improvement.
- Urban roads and lanes improvement.

Reference to the deliverables identified in the Project, indicates that there are a number of deliverables related specifically to the design aspects of the above infrastructure improvements with construction works.



7.2 SCOPE OF WORKS

The scope of works for consultant's services is fairly detailed in the TOR attached with contract Agreement. The main points are summarized below:

- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental / Social safeguard monitoring report, assets.
- Detailed draft final report for our puts, including status of all supervision and construction works issues, all deliverables under the contacts.
- Sub project completion report, and summary of all other reports, progress and issues under the project.

8. PROGRESS OF SUB – PROJECT COMPONENTS

8.1 CONSTRUCTION MATERIALS.

As per Clause 1.8.2 Engineer has given early notice to the contractor for identification and sample of all construction material before starting any kind of works. Contractor has identified and submitted their requisition for sampling of materials. Sampling works of all construction materials have completed. Team leader has recommended their letter for required tests for authorized organizations. Some test reports have been submitted by the Contractor which have been tested from outside of authorized organization. Engineer has emphasized production of the pre-cast item like (kerb stone, drain cover slab, manhole etc) for better work progress of the project. The Contractor has established two production yards for pre-cast item (kerb stone, drain cover slab, man whole etc.) and production is going on.

The Contractor has informed to borrow RCC NP-3 pipes from Itahari Hume pipe factory or other location and also requested for three Edge bearing test. It will be tested very soon in presence of consultant TL/PIU and contractor representative.

5.2 TL discussed during monthly progress meeting and given guidance for making certain modification and review on submitted work program and QAP. Contractor agreed for review/modification and and has already submitted work program / QAP.

8.2 DETAILS OF PRECAST ACTIVITIES

Table 6: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS at till, April, 2018

Physical Progress till April 2018							
S.N.	Description	Unit	Progress			Total to Date (RM.)	Remarks
			BoQ	Up to Previous month (RM.)	This Month (RM.)		
1	Precast Slab	No		9,935	5,269	15,204	Under progress
2	Kerb Stone	Rm	147,729.68	10,100	12,360	22,460	15.20%

Table 10: PHYSICAL PROGRESS in PRODUCTION OF RCC PIPES at ITAHARI till April, 2018

Physical Progress till April- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	RCC Pipe	300	336	336	0	336	Under process
2	RCC Pipe	450	681	340	0	340	
3	RCC Pipe	500	842	421	120	541	
4	RCC Pipe	600	382	230	152	382	
	Total						

Physical Progress till April- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	HDPE Pipe	110	1987.2	1,987.2	0	1987.2	Under process
2	HDPE Pipe	200	16656	6,000	2,000	8,000	
3	HDPE Pipe	250	115	115	60	175	
	Total						

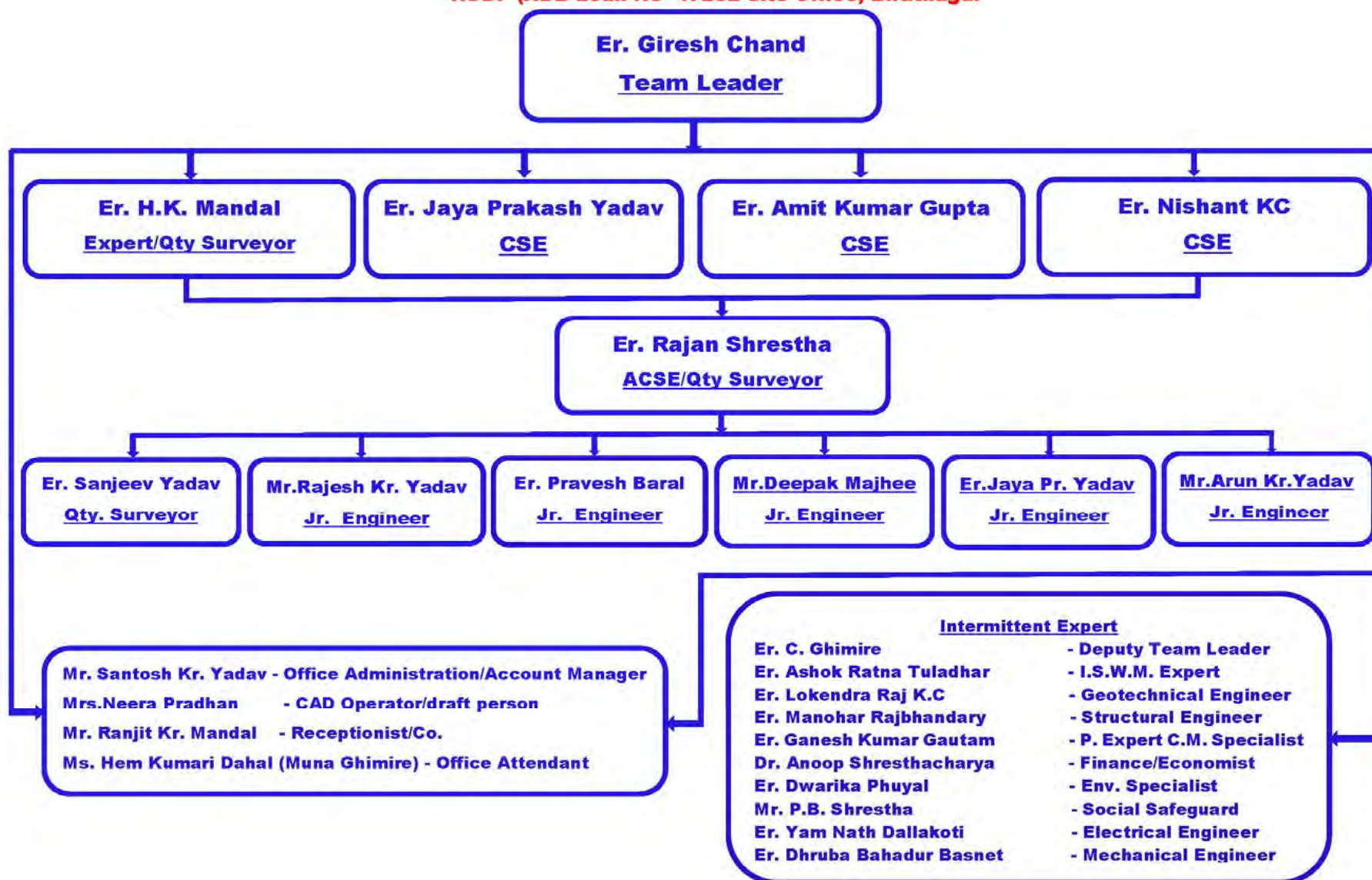
Physical Progress till April- 2018							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM)	This Month (RM.)		
1	UPVC Pipe	160	5050				

9. CONSULTANT

9.1 ORGANIZATION AND STAFFING

Attached



ORGANIZATION CHART**RUDP (ADB Loan No- 47252 Site Office, Biratnagar**

9.2 CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

The current staffing of the consultant at project site is as follows:

Table 7: CONSULTANT'S STAFF at Project Site, Biratnagar

SN	Name	Designation	Joining date	Remarks
1	Giresh Chand	Team Leader	6 th Sep 2017	
2	Ashok Ratna Tuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Dwarika Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
6	J.P Yadav	Construction Supervision Engineer	1 st March 2018	
7	A.K Gupta	Construction Supervision Engineer	1 st March 2018	
8	Nishant K.C.	Construction Supervision Engineer	2 nd April 2018	
9	Rajan Shrestha	ACSE/Quantity Surveyor	7 th Nov 2017	
10	Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
11	Sanjeev Yadav	Qty Surveyor	5 th Nov 2017	
12	Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
13	Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
14	Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
15	Pravesh Baral	Junior Engineer-2	10 th Dec 2017	
16	J.P Yadav	Junior Engineer-3	1 st March 2018	
17	Deepak Majhi	Junior Engineer-4	1 st March 2018	
18	Arun Kumar Yadav	Junior Engineer-5	16 th March 2018	
19	Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
20	Ramji Ghimire	Driver	1st Dec-2017	



The consultant has been constantly supervising the contractor's work in daily basis. The consultant is mainly focusing in construction management, contract administration and the following activities but not limited as listed below:

- i. Daily Construction supervision/Surveying works etc.
- ii. Quality control, cost control and time control
- iii. Measurement and Certification of Interim Payment Certificates (IPC)
- iv. Modification and design of Road side drain, storm drainage and sewer lines, manholes etc. as per site condition and approve working drawings as discussed/advised by employer.
- v. Supervise construction material testing and sampling
- vi. Monitor Environment Management Plan and its compliance
- vii. Monitor Social safeguard and Resettlement Plan and its compliance
- viii. Prepare Due Diligence Report of the Project
- ix. Maintain correspondences with the Employer and the Contractor
- x. Assist to PIU

9.3 Key Events

The consultant has noted the following key dates for the month of April, 2018.

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
1	Thursday, April 5, 2018	Activities Disturbed due to Heavy Rainfall	
2	Monday, April 9, 2018	Activities Disturbed due to Heavy Rainfall	
3	Tuesday, April 10, 2018	Site visited by DPD, TL (PMSC) etc	
4	Wednesday, April 11, 2018	RUDP Launching Program conducted by Employer	
5	Saturday, April 28, 2018	Activities Disturbed due to Heavy Rainfall	
6	Sunday, April 29, 2018	Activities Disturbed due to Heavy Rainfall	

- ❖ Among the above mentioned events, the unpredictable rainfall has disturbed the contractor's activities at site.



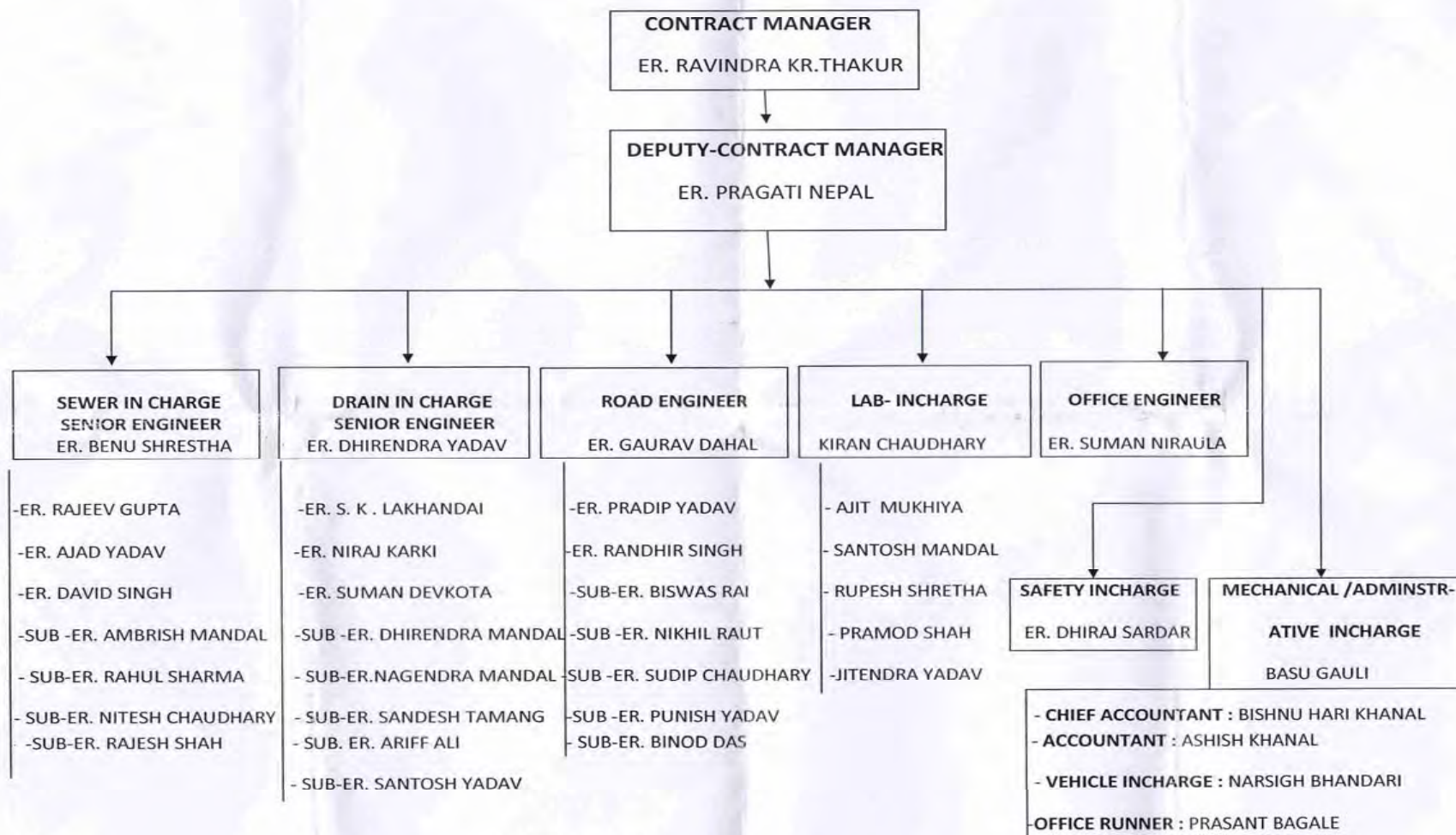
10. CONTRACTOR'S MANPOWER

Table 9: CONTRACTOR'S KEY STAFFS in April, 2018

S.No	Position	Minimum Number Required as Per contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Project/Contract Manager (1 No) 15/10 Yrs (Total/Similar Exp.)	1	1	
2	Civil Engineer-10/6	2	2	
3	Sanitary Engineer- (1no.)-12/8	1	0	
4	Road Engineer-(1no.)- 12/8	1	1	
5	Electromechanical Engineer-(1no)-10/5	1	0	
6	Safety Engineer	0	1	
7	Site Engineer	0	8	
8	Sub- Engineer	0	18	
9	Accountant	0	2	
10	Lab Technician	0	1	
11	Store Keeper	0	2	
12	Vehicle Incharge	0	2	



**ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD-BIRATNAGAR
SITE ORGANIZATION CHART(RUDP-BIRATNAGAR)**



10. CONTRACTOR'S EQUIPMENT

Table 10: CONTRACTOR'S EQUIPMENT

S.No	Equipment Type and Characteristics	Min Number Required as per contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	2	Backhoe loader-6 nos.
2	Crane (10 ton capacity)	3	0	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	3	
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	1	
9	Track Dozer (120 to 180 HP)	1	0	
10	Bitumen distributor (4 to 6 Kilo litre)-	1	1	
11	Water browser (minimum 5000 Litres)	3	8	
12	Chips spreader	1	0	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
14	Air compressor	2	2	
15	Tipping Trucks	15	30	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Thedolite	2	0	
19	Levelling	5	5	
20	Mobile Generator 15-20 Kva	3	2	
21	Mixer Machine	6	7	
22	Concrete Batching Plant	1	0	
23	Concrete pump	1	0	
24	Drain cleaner/ Nala cleaner	2	0	
25	Broomer	0	2	
26	Motor Bike	0	10	
27	Plate Compacter	0	4	
28	Water Pump	0	3	



11. WORK PLAN FOR THE NEXT MONTH

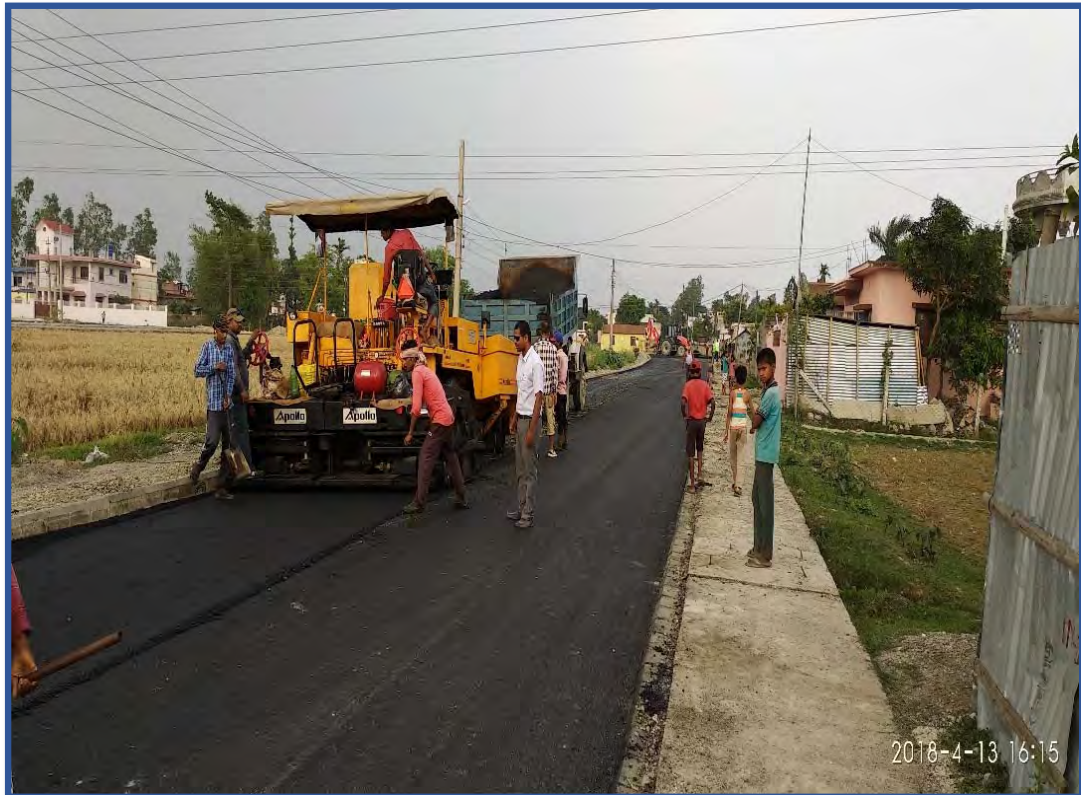
Following are the Contractor's works in the next month program.

- Detail Surveying works at various Road sections.
- Asphalt Concrete in Road section B2/B3/S13/R21/R25/R5.
- Storm water drainage (CN2-CN3).
- Laying of HDPE pipe for sewer line of T1/T2/T3/T4 secondary.
- Precast production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone and cover slab.
- Sewer Line works



12. ANNEX-1: PHOTOGRAPHS OF APRIL, 2018





Asphalt concrete works at R16



Drain works at Rani site



Sewer line works at T4 Line



Implementation of safety at site



Formwork at Storm water drain (Chyangbari Nala)



Kerb stone production at DDC Yard



Kerb stone works at Rani



Field Density Test at R21 Road



Survey works for sewer line



Slab production at Yard



Interaction with public



RUDP Launching Program

13. ANNEX-2: MINUTES OF MEETING APRIL, 2018
Attached



MINUTES OF MEETING-10

Contract: Secondary Town Integrated Urban Environment Improvement (STIUEIP) & Regional Urban Development Project (RUDP), Biratnagar

Date: 22 April 2018

Time: 11:00 AM

Venue: PIU Office, Biratnagar

Attendance

Employer:		
1	Mr. Bhim prajuli	Mayor, BMC
2	Mrs. Indira Karki	Deputy Mayor, BMC
3	Mr. Pradeep Kumar Niraula	Chief Administrative Officer (CAO), BMC
4	Mr. Bharat Kumar Nuepane	Project Manager (PM), PIU
5	Mr. Ghanshyam Kafley	Engineer, BMC
6	Mr. Anil Singh	Project Engineer, PIU
7	Mr. Ghanendra Katuwal	Project Engineer, PIU
8	Mr. Prakash Narayan Chaudhary	Project Engineer, PIU
9	Mr. Poonam Kumar Dahal	Social Development Officer, PIU
10	Mr. Mister K. C.	Account Officer, PIU
11	Mr. Purushottam Lamichhane	Pa. Pr. Sa., PIU
Contractor:		
1	Mr. Mahesh Subedi	Engineer, CTCE-Kalika J/V
2	Mr. Bishesh Prasai	Engineer, CTCE-Kalika J/V
3	Mr. Ravindra Thakur	Contract Manager (CM), Zhongheng Construction Group Co. Ltd.
4	Mr. Pragati Nepal	Engineer, Zhongheng Construction Group International Engineering Co. Ltd.
Consultant:		
1	Mr. Giresch Chand	Team Leader, DSC
2	Mr. Hare Krishna Mandal	Quantity Surveyor Expert, DSC
3	Mr. Amit Kumar Gupta	Construction Supervision Engineer, DSC

The meeting was chaired by Mayor, Mr. Bhim prajuli, Biratnagar Metropolitan City. Mr Pradeep kr Niraula, CAO and Mr. Bharat Kumar Nuepane, PM welcomed all the participants in the meeting. Following matters were discussed and decided:



Page 1 of Pages 3



S. NO.	Minutes	Action by
1	<p>Mr Bharat Kr Nuepane, PM briefed about the present status of the STIUEIP and RUDP. Mr Nuepane as well as Mr Chand, TL asked about the progress in STIUEIP, Biratnagar, mainly focused on cleansing of sewer lines & drainage system outstanding works at WWTP, R6 and Dedicated electricity feeder line.</p> <p>The Contractor's Engineer, Mr. Subedi informed that the physical progress has been achieved by 97%. Regarding cleaning the sewer line & drainages, they were arranging the skilled manpower from neighbouring country India and they will start the cleansing work from 26th April 2018.</p> <p>He added that all the outstanding works at WWTP are going on but due to unpredictable monsoon, some components are lagging, the work program has been already submitted to DSC. He also admitted that the sub base work of R6, R29 & R73 are going to be completed before 15 May 2018. Dedicated feeder electricity line for WWTP is under procurement process and some civil works are under construction at Rani sub-station to install the accessories.</p>	The employer, contractor & consultant
2	<p>Mayor, PM, and TL together emphasized that the further EOT will not be entertained for STIUEIP, Biratnagar if required the liquidated damage (LD) will be invoked as per CoC for further extension of time. Mr Subedi assured to complete the outstanding work before June 2018.</p>	The employer, contractor & consultant
3	<p>PM, Mr. Nuepane emphasized that at some stretches the houses were at low land rather than that of drain invert level so asked DSC to provide the outlet for those by any mean to solve the stagnant water problem which they were facing in every monsoon.</p> <p>TL, Mr. Chand included that the work of drain was carried out according to approved design and to overcome from the above mentioned issues isolated pipe lines will be required to be provided which ultimately would be going to fall at the nearest deeper drain.</p>	The employer, contractor & consultant
4	<p>Mayor, Mr. Parajuli and PM, Mr. Nuepane focused that during construction of drain and sewerage by the RUDP, Biratnagar, construction materials are placed in scattered manners, the safety signs are in adequate and the sufficient diversions (alternate way/bypass) were not provided for smooth traffic movements. Also, advised/instructed either to finish one stretch completely before commencement of another stretch's works or provide proper access or bypass to the traffic.</p> <p>The Contract Manager, Mr. Thakur admitted that now the works are going on inside the core city area (urban area) where the movement of traffic is very dense so, getting difficulties but onward they will arrange everything as advised/instructed. Also he admitted that execution of work is delaying due to delay in relocation of electrical & telephone poles, thus requested to sort out the issues by co-ordinating with concerned authorities.</p>	The employer, contractor & consultant



S. NO.	Minutes	Action by
5	Mayor, Mr Prajuli asked to complete all the ongoing works before monsoon if required, work in both shift (Day/Night) and he further instructed to give the alternate way (by pass) before commencement of any new construction works for smooth movability of the traffic. He also added to address and implement the grievances of local stakeholder as far as possible. He instructed to prepare the revised work schedule for further works keeping in mind of above mentioned instructions. It was further instructed to organize the weekly joint meeting in order to discuss the project monitoring & grievances arisen during construction at PIU Office, Biratnagar. Both the contractor admitted that they'll try to work in both day & night shift to complete the project on time and try to minimize the traffic movement issues.	The employer, contractor & consultant
6	Regarding S11 (Storm water drain), Mayor, Mr. Parajuli instructed PIU & DSC to start the drain work under RUDP as soon as possible. TL, Mr. Chand informed that there is no any provision for this work in the contract so in order to start further work of above mentioned stretch which certainly would increase the financial burdening. Mayor, Mr. Parajuli emphasized that he has already co-ordinated with higher authority to this regard and he assured that no such type of financial problem would be arisen. He instructed to PM, Mr. Nuepane to write the letter to DSC for further action and given the assurance for payment to the contractor. The next meeting will be 29 April 2018 at PIU office.	The employer, contractor & consultant



6:17 PM

for

Prakash

Handwritten signature and initials.

Note: Regarding sales paragraph-2, "sewer cleaning", Ref: letter SRS-C



14.ANNEX-3: LABORATORY TEST RESULTS OF APRIL, 2018
Attached



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:- B3-3

[illegible]

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Location:-B3-3



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:- R28

[illegible]

Contractor

**ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTD**

Checked By
Engineer

Submitted By
Contract Manager

Consultant

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL

Verified By
QTY Engineer/CSE

Approved By
Team Leader

Summary Sheet of Field Density Test

Location:-R-28



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:- B3-2

Month	April
Year	2018
Type of Material	Base

S.N.	Lab. Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.E.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	B3-2.0+100	Chisang Khola	3-Apr-18	100	89.03	73.15	52.73	39.27	30.42	18.62	8.94	2.246	5.60	NP	31.78	20.24/13.47	24.22	88.80	
2	RUDP-B-02	B3-3.0+200	Chisang Khola	3-Apr-18	100	89.09	72.29	50.52	36.21	28.98	17.51	7.22			NP	32.04	19.57/15.91	24.13		
3	RUDP-B-03	B3-3.0+300	Chisang Khola	6-Apr-18	100	87.46	71.66	53.85	38.89	28.94	15.89	7.30	2.242	5.00	NP	30.24	20.72/17.96	23.75	86.80	
4	RUDP-B-04	B3-3.0+400	Chisang Khola	6-Apr-18	100	87.98	72.80	52.57	38.05	27.44	13.64	5.78			NP	32.10	21.98/15.14	21.62		
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				<45	<35	<35	>80	

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTDBUILDING DESIGN AUTHORITY (P) LTD IN JOINT
VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS
ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPALChecked By
EngineerSubmitted By
Contract ManagerVerified By
QTY Engineer/CSEApproved By
Team Leader

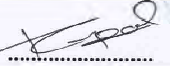


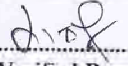

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report


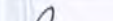


Location:- R26

S.N.	Lab Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PT%	Type of Material		A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075				L.A.A. %	Fl and El %			
1	RUDP-B-01	R26, 0+100	Chisang Khola	5-Apr-18	100	94.71	69.45	53.95	35.36	28.13	13.87	3.56			NP	31.62	21.46/19.27	21.15		
2	RUDP-B-02	R26, 0+200	Chisang Khola	5-Apr-18	100	94.34	70.45	57.49	40.88	31.90	20.44	5.39	2.240	5.55	NP	31.58	22.59/20.55	20.64	85.20	
3	RUDP-B-03	R26, 0+200	Chisang Khola	5-Apr-18	100	88.72	74.37	51.12	31.39	24.10	18.24	3.78			NP	30.42	22.83/17.07	20.40		
4	RUDP-B-04	R26, 0+400	Chisang Khola	7-Apr-18	100	90.95	76.54	50.17	37.13	27.29	19.81	4.31	2.244	5.40	NP	29.78	21.08/19.92	20.66	85.90	
5	RUDP-B-05	R26, 0+500	Chisang Khola	7-Apr-18	100	89.13	75.01	50.97	35.74	31.20	19.49	4.67			NP	30.22	20.14/18.85	20.34		
6	RUDP-B-06	R26, 0+600	Chisang Khola	7-Apr-18	100	88.35	68.82	44.99	30.19	26.33	16.08	4.13	2.249	5.60	NP	32.40	19.59/19.34	20.30	85.00	
Spec. Limit :					100	85-100	62-92	40-70	26-55	21-53	12-28	2-10				<45	<35	<35	>80	
Contractor										Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD										BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
 Checked By Engineer										 Submitted By Contract Manager										
										 Verified By QTY Engineer/CSE										
										 Approved By Team Leader										



Summary Sheet of Field Density Test

Month	April
Year	2018
Type of Material	Base

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHIMANDU, NEPAL	
 Checked By Engineer	 Submitted By Contract Manager	 Verified By Qty Enginner/CSE	 Approved By Team Leader

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report


Month	April
Year	2018
Type of Material	Base


Location:- R21(East of Sombare hatiya)

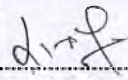
S.N.	Lab. Ref. no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight								MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CBR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075								
1	RUDP-B-01	R21, 0-600	Chisang Khola	13-Apr-18	100	89.61	71.72	55.74	38.60	28.63	14.95	5.62			NP	29.12	22.23/16.16	23.13	✓	
2	RUDP-B-02	R21, 0-700	Chisang Khola	13-Apr-18	100	88.16	68.78	51.89	34.37	24.28	14.44	6.53	2.241	5.55	NP	30.16	27.51/21.98	21.44	84.0	
3	RUDP-B-03	R21, 0-850	Chisang Khola	13-Apr-18	100	87.05	67.38	50.53	35.05	24.76	14.73	6.66			NP	30.30	25.46/17.64	22.13	✓	
4	RUDP-B-04	R21, 0-950	Chisang Khola	13-Apr-18	100	89.91	73.88	52.70	39.60	29.21	17.06	7.65			NP	34.24	23.53/16.52	20.00		

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTDBUILDING DESIGN AUTHORITY (P) LTD IN JOINT
VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS
ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL

 Checked By
Engineer


 Submitted By
Contract Manager


 Verified By
QTY Engineer/CSE


 Approved By
Team Leader


Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Location:-R-21(Sombare hatiya)



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

General:- 7.5 mm							Month		April		
							Year		2018		
							Description of Sample		Brick Wall		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm2		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
1	R-113	MR-115	Salimar	OPC	Chisang Khola	5-Mar-18	12-Mar-18	2-Apr-18		8.27	7.5
2	R-76	MR-116	Salimar	OPC	Chisang Khola	6-Mar-18	13-Mar-18	3-Apr-18		7.60	7.5
3	R-76	MR-117	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18		8.14	7.5
4	R-7	MR-118	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18		8.00	7.5
5	R-9	MR-119	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18		9.20	7.5
6	R-113	MR-120	Salimar	OPC	Chisang Khola	7-Mar-18	14-Mar-18	4-Apr-18		8.27	7.5
7	R-18	MR-121	Salimar	OPC	Chisang Khola	8-Mar-18	15-Mar-18	5-Apr-18		8.67	7.5
8	Rani-site	MR-122	Salimar	OPC	Chisang Khola	10-Mar-18	17-Mar-18	7-Apr-18		8.14	7.5
9	R-76	MR-123	Salimar	OPC	Chisang Khola	10-Mar-18	17-Mar-18	7-Apr-18		7.60	7.5
10	R-88	MR-124	Salimar	OPC	Chisang Khola	12-Mar-18	19-Mar-18	9-Apr-18		7.74	7.5
11	Rani-site	MR-125	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18		8.54	7.5
12	R-76	MR-126	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18		7.60	7.5
13	R-17	MR-127	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18		8.54	7.5
14	Rani-site	MR-128	Salimar	OPC	Chisang Khola	20-Mar-18	27-Mar-18	17-Apr-18		8.14	7.5
15	R-17	MR-129	Salimar	OPC	Chisang Khola	20-Mar-18	27-Mar-18	17-Apr-18		8.14	7.5
16	N-4	MR-130	Salimar	OPC	Chisang Khola	21-Mar-18	28-Mar-18	18-Apr-18		8.00	7.5
17	R-7	MR-131	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18		7.74	7.5
18	R-9	MR-132	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18		8.80	7.5
19	R-40	MR-133	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18		8.40	7.5
20	N-4	MR-134	Salimar	OPC	Chisang Khola	23-Mar-18	30-Mar-18	20-Apr-18		8.14	7.5
21	Rani-site	MR-135	Arghakhachi	OPC	Chisang Khola	25-Mar-18	1-Apr-18	22-Apr-18	5.87	8.54	7.5
22	R-7	MR-136	Arghakhachi	OPC	Chisang Khola	25-Mar-18	1-Apr-18	22-Apr-18	6.14	8.14	7.5
23	N-3	MR-137	Arghakhachi	OPC	Chisang Khola	26-Mar-18	2-Apr-18	23-Apr-18	5.47	8.14	7.5
24	R-86	MR-138	Arghakhachi	OPC	Chisang Khola	26-Mar-18	2-Apr-18	23-Apr-18	6.14	8.27	7.5
25	N-5	MR-139	Arghakhachi	OPC	Chisang Khola	27-Mar-18	3-Apr-18	24-Apr-18	6.00	8.14	7.5
26	R-183	MR-140	Arghakhachi	OPC	Chisang Khola	27-Mar-18	3-Apr-18	24-Apr-18	5.74	7.60	7.5
27	R-36	MR-141	Arghakhachi	OPC	Chisang Khola	27-Mar-18	3-Apr-18	24-Apr-18	5.87	8.80	7.5
28	R-36	MR-142	Arghakhachi	OPC	Chisang Khola	28-Mar-18	4-Apr-18	25-Apr-18	5.87	8.80	7.5
29	R-9	MR-143	Arghakhachi	OPC	Chisang Khola	28-Mar-18	4-Apr-18	25-Apr-18	5.74	8.40	7.5
30	R-122	MR-144	Arghakhachi	OPC	Chisang Khola	28-Mar-18	4-Apr-18	25-Apr-18	6.40	9.20	7.5
31	R-21	MR-145	Arghakhachi	OPC	Chisang Khola	28-Mar-18	4-Apr-18	25-Apr-18	6.27	8.54	7.5
32	Xenial Hotel	MR-146	Arghakhachi	OPC	Chisang Khola	29-Mar-18	5-Apr-18	26-Apr-18	5.87	8.40	7.5
33	Rani Site (Hadtali Hatt)	MR-147	Arghakhachi	OPC	Chisang Khola	29-Mar-18	5-Apr-18	26-Apr-18	5.47	8.27	7.5
34	Rani Site (Mahendra Chowk)	MR-148	Arghakhachi	OPC	Chisang Khola	29-Mar-18	5-Apr-18	26-Apr-18	5.60	8.14	7.5

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
Checked By Engineer	Submitted By Contract Manager	Verified By Qty Engineer/CSE	Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

Cmbs:- 7.5 N/mm ²							Month		April			
							Year		2018			
							Description of Sample				Brick Wall	
							Date of Testing		Strength, N/mm2		Type of Grade	
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	7 Days	28 Days	7 Days	28 Days		
35	R-7	MR-149	Arghakhachi	OPC	Chisang Khola	30-Mar-18	6-Apr-18	27-Apr-18	5.87	7.60	7.5	
36	R-9	MR-150	Arghakhachi	OPC	Chisang Khola	30-Mar-18	6-Apr-18	27-Apr-18	5.87	8.54	7.5	
37	N-3	MR-151	Arghakhachi	OPC	Chisang Khola	1-Apr-18	8-Apr-18	29-Apr-18	5.60	7.87	7.5	
38	R-7	MR-152	Arghakhachi	OPC	Chisang Khola	1-Apr-18	8-Apr-18	29-Apr-18	5.60	7.87	7.5	
39	R-186	MR-153	Arghakhachi	OPC	Chisang Khola	1-Apr-18	8-Apr-18	29-Apr-18	6.14	8.94	7.5	
40	N-5	MR-154	Arghakhachi	OPC	Chisang Khola	1-Apr-18	8-Apr-18	29-Apr-18	5.60	8.27	7.5	
41	R-36	MR-155	Arghakhachi	OPC	Chisang Khola	1-Apr-18	8-Apr-18	29-Apr-18	6.14	9.20	7.5	
42	R-122	MR-156	Arghakhachi	OPC	Chisang Khola	2-Apr-18	9-Apr-18	30-Apr-18	6.27	8.14	7.5	
43	R-122	MR-157	Arghakhachi	OPC	Chisang Khola	2-Apr-18	9-Apr-18	30-Apr-18	6.27	8.14	7.5	
44	R-21	MR-158	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	5.33		7.5	
45	Rani Site(Hadtali Hatt)	MR-159	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	5.74		7.5	
46	Rani Site(Hadtali Hatt)	MR-160	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	5.74		7.5	
47	R-33	MR-161	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	6.40		7.5	
48	Rani Site (Mahendra Chowk)	MR-162	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	6.54		7.5	
49	Rani Site (Mahendra Chowk)	MR-163	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	6.54		7.5	
50	Rani Site	MR-164	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	5.60		7.5	
51	R-186	MR-165	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	6.40		7.5	
52	N-5	MR-166	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	5.74		7.5	
53	N-9	MR-167	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	6.14		7.5	
54	R-21	MR-168	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	5.87		7.5	
55	Rani Site(Hadtali Hatt)	MR-169	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	5.74		7.5	
56	R-33	MR-170	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	6.40		7.5	
57	Rani Site (Mahendra Chowk)	MR-171	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	5.60		7.5	
58	R-75	MR-172	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	5.74		7.5	
59	R-86	MR-173	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	8.07		7.5	
60	R-75	MR-174	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	5.33		7.5	
61	R-9	MR-175	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	8.00		7.5	
62	R-86	MR-176	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	5.60		7.5	
63	Rani Site (Mahendra Chowk)	MR-177	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	6.40		7.5	
64	R-75	MR-178	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18	5.74		7.5	
65	Rani Site(Hadtali Hatt)	MR-179	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18	6.08		7.5	
66	R-86	MR-180	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18	6.27		7.5	
67	R-36	MR-181	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18	6.40		7.5	
68	R-9	MR-182	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18	5.87		7.5	

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
Checked By Engineer	Submitted By Contract Manager	Verified By Qty Engineer/CSE	Approved By Team Leader



Summary Sheet of Mortar Test Report



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.

									Month	April			
									Year	2018			
									Type of Material	20 mm Agg			
S.n.	Lab. Ref. no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by				L.A.A.%	Fl and Fl %	A.I.V.%	Remarks	
					40	20	10	4.75					
1	RUDP-CA-40	1-Apr-18	N-3	Chisang Khola	100.00	97.21	32.25	2.59	26.10	21.25/18.97	22.64		
2	RUDP-CA-41	2-Apr-18	N-5	Chisang Khola	100.00	97.41	33.64	1.88	30.10	22.76/21.67	20.25		
3	RUDP-CA-42	5-Apr-18	Koshi-Yard	Chisang Khola	100.00	95.95	33.82	2.47	29.62	22.08/20.87	21.13		
4	RUDP-CA-43	6-Apr-18	R-7	Chisang Khola	100.00	96.47	34.62	2.82	29.64	20.12/19.36	20.85		
5	RUDP-CA-44	7-Apr-18	R-86	Chisang Khola	100.00	95.82	31.60	3.65	30.40	20.10/18.75	21.17		
6	RUDP-CA-45	8-Apr-18	R-183	Chisang Khola	100.00	97.07	32.81	3.80	27.64	21.26/17.52	21.86		
7	RUDP-CA-46	8-Apr-18	DDC-Yard	Chisang Khola	100.00	95.93	34.25	2.00	30.20	21.83/18.48	20.59		
8	RUDP-CA-47	11-Apr-18	CN2CN3	Chisang Khola	100.00	96.78	33.93	1.54	29.68	20.35/18.56	21.73		
9	RUDP-CA-48	11-Apr-18	B2-5	Chisang Khola	100.00	96.78	34.00	1.54	30.04	19.64/16.50	20.90		
10	RUDP-CA-49	13-Apr-18	N-9	Chisang Khola	100.00	97.09	34.93	2.77	32.22	21.67/19.82	21.55		
11	RUDP-CA-50	16-Apr-18	Madhumara-Yard	Chisang Khola	100.00	97.24	34.98	3.03	30.98	21.47/17.71	22.44		
12	RUDP-CA-51	17-Apr-18	B-75	Chisang Khola	100.00	97.11	34.76	2.77	30.98	21.97/20.95	19.98		
13	RUDP-CA-52	22-Apr-18	Madhumara-Yard	Chisang Khola	100.00	97.47	33.79	2.32	29.68	20.84/18.65	22.27		
14	RUDP-CA-53	22-Apr-18	R-111	Chisang Khola	100.00	97.02	31.52	2.20	30.98	21.91/17.34	21.86		
15	RUDP-CA-54	23-Apr-18	DDC-Yard	Chisang Khola	100.00	97.22	30.38	2.05	29.42	19.36/18.14	20.04		
16	RUDP-CA-55	24-Apr-18	Rani-Site	Chisang Khola	100.00	97.15	36.25	2.45	30.84	19.83/15.86	20.74		
17	RUDP-CA-56	24-Apr-18	R-21(Somare hatiya)	Chisang Khola	100.00	97.86	32.11	2.14	30.84	20.10/19.59	21.13		
18	RUDP-CA-57	25-Apr-18	CN2CN3	Chisang Khola	100.00	96.96	29.88	3.04	29.56	22.30/21.17	21.57		
19	RUDP-CA-58	25-Apr-18	DDC-Yard	Chisang Khola	100.00	96.76	35.49	2.33	30.30	20.03/15.77	21.26		
Spec. Limit :					100	95-100	25-35	0-10	<35	<25	<25		
Contractor					Consultant								
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL								
Checked By Engineer					Submitted By Contract Manager				Verified By Qty Engineer/CSE				Approved By Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.



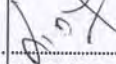

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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		April	
							Year		2018	
							Type of Material		Conc. Cube	
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2	Concrete Grade
							7 Days	28 Days		
1	DDC-yard	RUDP-137	Salimar	OPC	Chisang Khola	4-Mar-18	11-Mar-18	1-Apr-18	22.65	M20
2	R-114	RUDP-138	Salimar	OPC	Chisang Khola	4-Mar-18	11-Mar-18	1-Apr-18	23.18	M20
3	Koshi-yard	RUDP-139	Salimar	OPC	Chisang Khola	6-Mar-18	13-Mar-18	3-Apr-18	22.73	M20
4	R-76	RUDP-140	Salimar	OPC	Chisang Khola	8-Mar-18	15-Mar-18	5-Apr-18	22.73	M20
5	Koshi-yard	RUDP-141	Salimar	OPC	Chisang Khola	9-Mar-18	16-Mar-18	6-Apr-18	22.80	M20
6	CN2CN3	RUDP-142	Salimar	OPC	Chisang Khola	9-Mar-18	16-Mar-18	6-Apr-18	18.00	M15
7	Koshi-yard	RUDP-143	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	22.41	M20
8	CN2CN3	RUDP-144	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	22.73	M20
9	DDC-yard	RUDP-145	Salimar	OPC	Chisang Khola	11-Mar-18	18-Mar-18	8-Apr-18	22.58	M20
10	Koshi-yard	RUDP-146	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	23.33	M20
11	Koshi-yard	RUDP-147	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	22.95	M30
12	R-76	RUDP-148	Salimar	OPC	Chisang Khola	13-Mar-18	20-Mar-18	10-Apr-18	23.03	M20
13	DDC-yard	RUDP-149	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	22.65	M20
14	Rani-Site	RUDP-150	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	22.67	M20
15	CN2CN3	RUDP-151	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	22.19	M25
16	R-88	RUDP-152	Salimar	OPC	Chisang Khola	14-Mar-18	21-Mar-18	11-Apr-18	23.41	M20
17	R-17	RUDP-153	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	23.63	M20
18	R-76	RUDP-154	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	22.58	M20
19	R-88	RUDP-155	Salimar	OPC	Chisang Khola	15-Mar-18	22-Mar-18	12-Apr-18	22.73	M20
20	R-40	RUDP-156	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	22.80	M20
21	R-18	RUDP-157	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	23.10	M20
22	B-1	RUDP-158	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	23.41	M20
23	Rani-Site	RUDP-159	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	23.03	M20
24	DDC-yard	RUDP-160	Salimar	OPC	Chisang Khola	16-Feb-18	23-Feb-18	16-Mar-18	22.73	M20
25	CN2CN3	RUDP-161	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	16.41	M15
26	DDC-yard	RUDP-162	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	33.79	M30
27	CN2CN3	RUDP-163	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	23.18	M20
28	Koshi-yard	RUDP-164	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	22.73	M20
29	Rani-Site	RUDP-165	Salimar	OPC	Chisang Khola	16-Mar-18	23-Mar-18	13-Apr-18	22.73	M20
30	CN2CN3	RUDP-166	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18	22.95	M20
31	R-17	RUDP-167	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18	23.71	M20
32	R-76	RUDP-168	Salimar	OPC	Chisang Khola	17-Mar-18	24-Mar-18	14-Apr-18	22.73	M20
33	CN2CN3	RUDP-169	Salimar	OPC	Chisang Khola	18-Mar-18	25-Mar-18	15-Apr-18	16.93	M15
34	CN2CN3	RUDP-170	Salimar	OPC	Chisang Khola	18-Mar-18	25-Mar-18	15-Apr-18	23.10	M20
35	DDC-yard	RUDP-171	Salimar	OPC	Chisang Khola	18-Mar-18	25-Mar-18	15-Apr-18	32.20	M30
36	Koshi-yard	RUDP-172	Salimar	OPC	Chisang Khola	19-Mar-18	26-Mar-18	16-Apr-18	22.73	M20
Contractor							Consultant			
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD							BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD.			
 Checked By Engineer							 Submitted By Contract Manager			
 Verified By Qty Engineer/CSE							 Approved By Team Leader			



Summary Sheet of Concrete Cube Test Report



Summary Sheet of Concrete Cube Test Report



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		April		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
83	DDC-Yard	RUDP-219	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	14.92		M20
84	DDC-Yard	RUDP-220	Arghakhachi	OPC	Chisang Khola	3-Apr-18	3-Apr-18	1-May-18	14.55		M20
85	Rani Site (Hadtali Hatt)	RUDP-221	Arghakhachi	OPC	Chisang Khola	3-Apr-18	10-Apr-18	1-May-18	14.62		M20
86	R-75	RUDP-222	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	14.55		M20
87	R-7(A)	RUDP-223	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	14.69		M20
88	N-9	RUDP-224	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	14.4		M20
89	R-86	RUDP-225	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	15.14		M20
90	Rani Site	RUDP-226	Arghakhachi	OPC	Chisang Khola	4-Apr-18	11-Apr-18	2-May-18	14.25		M20
91	CN2CN3	RUDP-227	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	15.22		M20
92	Koshi-yard	RUDP-228	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	14.47		M20
93	N-9	RUDP-229	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	14.47		M20
94	R-86	RUDP-230	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	14.10		M20
95	CN2CN3	RUDP-231	Arghakhachi	OPC	Chisang Khola	5-Apr-18	12-Apr-18	3-May-18	14.25		M20
96	Koshi-yard	RUDP-232	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	15.22		M20
97	Rani Site	RUDP-233	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	14.99		M20
98	N-9	RUDP-234	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	14.92		M20
99	R-75	RUDP-235	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	15.37		M20
100	R-86	RUDP-236	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	15.66		M20
101	DDC-Yard	RUDP-237	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	14.77		M20
102	Rani Site (Mahendra Chowk)	RUDP-238	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	14.55		M20
103	CN2CN3	RUDP-239	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	15.29		M20
104	R-75	RUDP-240	Arghakhachi	OPC	Chisang Khola	6-Apr-18	13-Apr-18	4-May-18	14.17		M20
105	DDC-Yard	RUDP-241	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.10		M20
106	DDC-Yard	RUDP-242	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	20.96		M30
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
											
Checked By Engineer						Submitted By Contract Manager					
						Verified By Qty Engineer/CSE					
						Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		April		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
107	CN2CN3	RUDP-243	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.55		M20
108	Koshi Yard	RUDP-244	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	15.74		M20
109	N-9	RUDP-245	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.84		M20
110	R-86	RUDP-246	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.32		M20
111	R-75	RUDP-247	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.99		M20
112	R-7(A)	RUDP-248	Arghakhachi	OPC	Chisang Khola	7-Apr-18	14-Apr-18	5-May-18	14.84		M20
113	R-183	RUDP-249	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.44		M20
114	CN2CN3	RUDP-250	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	14.47		M20
115	Koshi Yard	RUDP-251	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	14.84		M20
116	DDC-yard	RUDP-252	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	14.99		M20
117	N-9	RUDP-253	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	14.92		M20
118	R-86	RUDP-254	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.37		M20
119	Rani Site	RUDP-255	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.44		M20
120	R-86	RUDP-256	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.07		M20
121	Xenial Hotel	RUDP-257	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.44		M20
122	CN2CN3	RUDP-258	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.52		M20
123	CN2CN3	RUDP-259	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	14.99		M20
124	R-86	RUDP-260	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.29		M20
125	R-7 (A)	RUDP-261	Arghakhachi	OPC	Chisang Khola	8-Apr-18	15-Apr-18	6-May-18	15.74		M20
126	CN2CN3	RUDP-262	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	15.07		M20
127	DDC-yard	RUDP-263	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	15.07		M20
128	N-5	RUDP-264	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	14.69		M20
129	Rani Site (Mahendra Chowk)	RUDP-265	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	14.99		M20
130	Rani Site	RUDP-266	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	14.69		M20
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL						
											
Checked By Engineer					Submitted By Contract Manager		Verified By Qty Engineer/CSE		Approved By Team Leader		



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		April		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm ²		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
131	R-86	RUDP-267	Arghakhachi	OPC	Chisang Khola	9-Apr-18	16-Apr-18	7-May-18	14.25		M20
132	R-122	RUDP-268	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	15.29		M20
133	N-9	RUDP-269	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	14.25		M20
134	Rani Site (Hadtali Hatt)	RUDP-270	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	15.29		M20
135	CN2CN3	RUDP-271	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	14.55		M20
136	DDC-yard	RUDP-272	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	15.14		M20
137	R-36	RUDP-273	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	15.81		M20
138	N-5	RUDP-274	Arghakhachi	OPC	Chisang Khola	10-Apr-18	17-Apr-18	8-May-18	14.47		M20
139	Xenial Hotel	RUDP-275	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	14.55		M20
140	R-21	RUDP-276	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	15.14		M20
141	R-21	RUDP-277	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	15.14		M20
142	R-75	RUDP-278	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	14.84		M20
143	CN2CN3	RUDP-279	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	15.07		M20
144	DDC-yard	RUDP-280	Arghakhachi	OPC	Chisang Khola	11-Apr-18	18-Apr-18	9-May-18	14.4		M20
145	Rani Site (Mahendra chwok)	RUDP-281	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	14.84		M20
146	R-86	RUDP-282	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	14.47		M20
147	R-122	RUDP-283	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	14.84		M20
148	CN2CN3	RUDP-284	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	14.17		M20
149	N-9	RUDP-285	Arghakhachi	OPC	Chisang Khola	12-Apr-18	19-Apr-18	10-May-18	14.69		M20
150	R-86	RUDP-286	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	14.92		M20
151	Rani Site (Mahendra chwok)	RUDP-287	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	14.99		M20
152	N-9	RUDP-288	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	14.84		M20
153	R-122	RUDP-289	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	15.14		M20
154	DDC-yard	RUDP-290	Arghakhachi	OPC	Chisang Khola	13-Apr-18	20-Apr-18	11-May-18	16.04		M30

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD  Checked By Engineer	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL  Submitted By Contract Manager	 Verified By Qty Engineer/CSE	 Approved By Team Leader
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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report


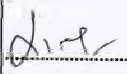
							Month		April		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
155	DDC-yard	RUDP-291	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	16.04		M20
156	Rani Site (Hadtali Hatt)	RUDP-292	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	15.22		M20
157	Rani Site	RUDP-293	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	16.11		M20
158	N-9	RUDP-294	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	15.52		M20
159	R-86	RUDP-295	Arghakhachi	OPC	Chisang Khola	14-Apr-18	21-Apr-18	12-May-18	15.74		M20
160	Rani Site (Mahendra chwok)	RUDP-296	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18	15.44		M20
161	Rani Site (Mahendra chwok)	RUDP-297	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18	15.44		M20
162	CN2CN3	RUDP-298	Arghakhachi	OPC	Chisang Khola	15-Apr-18	22-Apr-18	13-May-18	14.62		M20
163	R-75	RUDP-299	Arghakhachi	OPC	Chisang Khola	16-Apr-18	23-Apr-18	14-May-18	14.84		M20
164	R-33	RUDP-300	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18	14.69		M20
165	R-36	RUDP-301	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18	15.14		M20
166	R-21	RUDP-302	Arghakhachi	OPC	Chisang Khola	17-Apr-18	24-Apr-18	15-May-18	15.37		M20
167	Rani Site (Hadtali Hatt)	RUDP-303	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18	14.17		M20
168	R-75	RUDP-304	Arghakhachi	OPC	Chisang Khola	18-Apr-18	25-Apr-18	16-May-18	15.14		M20
169	DDC-yard	RUDP-305	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18	15.37		M20
170	DDC-yard	RUDP-306	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18	15.37		M20
171	CN2CN3	RUDP-307	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18	14.40		M20
172	R-36	RUDP-308	Arghakhachi	OPC	Chisang Khola	19-Apr-18	26-Apr-18	17-May-18	14.4		M20
173	R-21	RUDP-309	Arghakhachi	OPC	Chisang Khola	20-Apr-18	27-Apr-18	18-May-18	15.14		M20
174	N-5	RUDP-310	Arghakhachi	OPC	Chisang Khola	20-Apr-18	27-Apr-18	18-May-18	14.99		M20
175	R-33	RUDP-311	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18	14.99		M20
176	R-36	RUDP-312	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18	14.32		M20
175	N-5	RUDP-313	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18	15.29		M20
176	R-86	RUDP-314	Arghakhachi	OPC	Chisang Khola	21-Apr-18	28-Apr-18	19-May-18	14.69		M20
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
 Checked By Engineer						 Submitted By Contract Manager					
						 Verified By Qty Engineer/CSE					
						 Approved By Team Leader					



Summary Sheet of Concrete Cube Test Report



Project: Regional Urban Development Project (RUDP)																
SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE																
FOR THE MONTH OF MARCH /APRIL 2018																
Test Result BY MARSHALL METHOD (AASHTO T 245-78)																
Contract Package: RUDP-DSC/BRT/02																
S.No	Lab Ref. No.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm						Shrinkage Content From Extraction Test %	Max Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm	
				20	16	9.5	4.75	2.36	0.6							0.075
1	1	26/3/2018	Sample From B2-1, 1+235 to 1+120	100	100	82.07	57.46	34.75	16.19	7.28	5.74	2.372	3.24	16.52	10871	2.55
2	2	28/3/2018	Sample From B2-1, 0+745 to 0+290	100	100	82.41	58.04	35.58	16.30	7.93	5.62	2.381	3.05	16.1	10742	2.53
3	3	31/3/2018	Sample From B1, 1+106 to 0+740	100	100	82.18	58.01	35.74	16.22	7.85	5.7	2.378	3.03	16.26	10737	2.42
4	4	4/4/2018	Sample From B2-3, 0+600 to 0+740 443	100	100	93.38	59.78	38.58	15.68	6.77	5.67	2.373	3.28	16.41	10619	2.28
5	5	12/4/2018	Sample From R-16, 0+558 to 0+350	100	100	80.91	56.72	33.81	15.78	6.87	5.73	2.371	3.27	16.52	11091	2.48
6	6	13/4/2018	Sample From R-16, 0+380 to 0+000	100	100	80.70	56.73	34.04	16.01	6.89	5.71	2.375	3.16	16.39	11109	2.53
7	7	15/4/2018	Sample From R-28, 0+639 to 0+302	100	100	79.96	56.31	33.51	15.69	6.79	5.70	2.376	3.10	16.32	11217	2.48
8	8	26/4/2018	Sample from B3-3 Line 0+600 to 0+704	100	100	81.36	57.42	35.17	17.37	6.78	5.60	2.378	3.19	16.18	13473	2.22
9	9	26/4/2018	Sample from S13-C Line 0+320 to 0+660	100	100	81.44	57.25	35.19	17.58	7.18	5.73	2.375	3.10	16.38	13594	2.40
Specifications				100	100-100	76-82	54-59	33-37	16-19	6 to 9	5.703	Min 2.158	3-6%	≥ 15	≥ 8500	2-3
Job Mix Tolerances from RUDP Specification Table 2-4-18				±5%	Null	±5%	±3%	±2%	±1%	Null	±0.3%	For (25-51)mm Thickness W/C Course				
REMARKS:																
<div style="display: flex; justify-content: space-between;"> <div> <p>Contractor Reps</p> <p>Test Conducted / Report Prepared by:</p> <p>Sr. Lab Technician</p> <p>Lab Technician</p> <p>Kalika Construction</p> <p>Bratnagar, Site Lab JUDI</p> </div> <div> <p>Submitted By:</p> <p>Contract Manager</p> <p>Zhongheng Construction Group</p> <p>International Engineering Co. Ltd</p> </div> <div> <p>Consultant Rep</p> <p>Verified by/ Checked by:</p> <p>BUILDING DESIGN AUTHORITY (P) LTD IN Joint Venture</p> <p>With B.N. Consultancy PVT. LTD AND PLUS Engineers</p> <p>AND Architects (P) LTD Kathmandu NEPAL</p> </div> </div>																

REGIONAL URBAN DEVELOPMENT PROJECT															
Biratnagar Metropolitan City															
Contract No:- RUDP/ICB/BRT-02															
Summary Sheet of Monthly Test Report of Concrete Sand															
												Month	April		
												Year	2018		
												Type of Material	Concrete Sand		
S.no	Lab.Ref.No.	Date of Test	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks		
					10	4.75	2.36	1.18	0.600	0.300	0.150				
1	RUDP-CS-40	3-Apr-18	N-5	Chisang Khola	100.00	95.56	72.29	41.71	24.75	9.69	3.38	1.63			
2	RUDP-CS-41	3-Apr-18	N-5	Chisang Khola	100.00	94.11	69.09	33.85	19.68	8.83	3.61	1.31			
3	RUDP-CS-42	3-Apr-18	Kosh-yard	Chisang Khola	100.00	92.96	68.22	41.55	23.68	10.84	4.22	1.13			
4	RUDP-CS-43	3-Apr-18	R-7	Chisang Khola	100.00	95.59	63.03	40.80	21.26	10.15	4.62	1.32			
5	RUDP-CS-44	5-Apr-18	R-86	Chisang Khola	100.00	95.63	64.5	38.75	18.10	8.04	3.71	1.56			
6	RUDP-CS-45	6-Apr-18	DDC-Yard	Chisang Khola	100.00	93.49	63	36.80	22.82	12.37	4.42	1.61			
7	RUDP-CS-46	8-Apr-18	R-33	Chisang Khola	100.00	95.38	64.34	41.26	24.31	15.36	4.99	1.45			
8	RUDP-CS-47	11-Apr-18	CN2CN3	Chisang Khola	100.00	93.53	64.22	39.22	21.57	13.48	3.92	1.59			
9	RUDP-CS-48	11-Apr-18	N-9	Chisang Khola	100.0	93.7	64.55	41.46	21.88	12.64	3.08	1.38			
10	RUDP-CS-49	12-Apr-18	Madhumara-Yard	Chisang Khola	100.0	93.15	68.26	50.10	24.12	13.85	3.42	1.18			
11	RUDP-CS-50	15-Apr-18	R-75	Chisang Khola	100.00	92.34	66.83	41.68	25.36	16.57	6.21	2.12			
12	RUDP-CS-51	15-Apr-18	R-183	Chisang Khola	100.00	92.92	65.09	42.47	28.24	16.79	5.55	1.29			
13	RUDP-CS-52	19-Apr-18	R-2	Chisang Khola	100.00	91.43	63.23	36.77	18.33	14.38	7.48	1.11			
14	RUDP-CS-53	22-Apr-18	R-111	Chisang Khola	100.00	93.48	61.53	37.09	18.23	13.35	6.14	1.35			
15	RUDP-CS-54	23-Apr-18	Kosh-yard	Chisang Khola	100.0	93.47	61.11	36.55	17.26	12.52	5.39	1.03			
16	RUDP-CS-55	23-Apr-18	DDC-Yard	Chisang Khola	100.00	92.16	67.89	42.40	17.40	9.46	4.31	1.76			
Spec. Limit :					100	90~100	85~100	75~100	60~75	12~40	0~10	<5%			
Contractor					Consultant										
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL										
															
Checked By					Submitted By					Verified By				Approved By	
Engineer					Contract Manager					Qty Engineer/CSE				Team Leader	


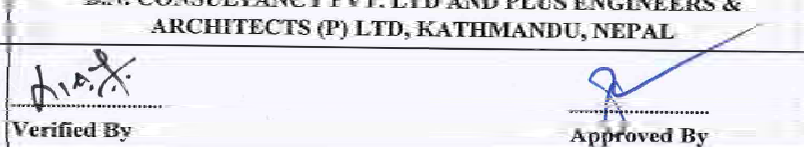


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of Concrete Sand

		Month	April ✓										
		Year	2018 ✓										
		Type of Material	Concrete Sand										
S.n.	Lab. Ref no.	Date of Test	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks
					10	4.75	2.36	1.18	0.600	0.300	0.150		
17	RUDP-CS-56	23-Apr-18	Rani- Site	Chisang Khola	100.00	92.59	78.57	44.51	19.67	9.25	4.86	1.51	
18	RUDP-CS-57	24-Apr-18	Koshi-yard	Chisang Khola	100.00	95.52	79.29	41.42	20.71	8.35	4.25	0.75	
19	RUDP-CS-58	24-Apr-18	CN2CN3	Chisang Khola	100.00	94.89	77.23	46.95	22.21	7.89	3.35	1.08	
20	RUDP-CS-59	25-Apr-18	R-21 (Sembare hatra)	Chisang Khola	100.00	95.19	70.78	41.52	20.48	8.63	3.90	1.69	
21	RUDP-CS-60	25-Apr-18	R-33	Chisang Khola	100.00	96.06	67.06	41.41	22.08	9.81	3.79	1.35	
22	RUDP-CS-61	26-Apr-18	R-122	Chisang Khola	100.00	95.69	72.78	54.20	26.98	13.67	3.63	1.22	
23	RUDP-CS-62	26-Apr-18	R-2	Chisang Khola	100.00	94.42	69.13	52.40	23.50	11.33	2.87	1.44	
Spec. Limit :					100	90-100	85-100	75-100	60-75	12-40	0-10	<5%	
Contractor					Consultant								
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL								
													
Checked By					Verified By								
Engineer					Qty Engineer/CSE								
Submitted By					Approved By								
Contract Manager					Team Leader								




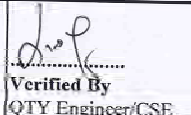


REGIONAL URBAN DEVELOPMENT PROJECT
Biratnagar Metropolitan City
Contract No: RUDP/ICB/BRT-02
Daily Application Rate Check for Priming work

Type of Bitumen: 80/100 P.G
 Cutter Percentage: MC 70:MC30






SUMMARY FOR THE MONTH OF APRIL 2018

SN NO	Location	Date of Priming	Station From	to	Side of Priming	Area of Priming	Intersection Area m2	Total Area M2	Bitumen Consumption (litr)	Application Rate By Deep Lit/m2	Application Rate Bt Tray Test Lit/m2
1	S13-A	01-Apr-18	0+000	0+350	Both Side	2520	0	2520	2700	1.07	1.06
2	S13-C	01-Apr-18	0+000	0+175	Both Side	1067.5	0	1067.5	1100	1.03	1.05
3	B3-3	02-Apr-18	0+600	0+310	Both Side	2755	0	2755	2800	1.02	1.03
4	B3-3	03-Apr-18	0+310	0+000	Both Side	2945	0	2945	3150	1.07	1.03
5	B2-3	03-Apr-18	0+230	0+000	Both Side	1104	0	1104	1200	1.09	1.06
6	R-16	08-Apr-18	0+558	0+210	Both Side	3114.6	0	3114.6	3300	1.06	1.04
7	R-16	11-Apr-18	0+210	0+000	Both Side	2262	0	2262	2400	1.06	1.050
8	R-28	13-Apr-18	0+639	0+302	Both Side	1364.85	0	1364.85	1400	1.03	1.060



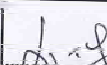

Required specification for Prime coat 1.0 Lit/M2 \pm 5% Specific Gravity of Bitumen 1.025

Contractor	Consultant
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
 Checked By Engineer	 Submitted By Contract Manager
	 Verified By QTY Engineer/CSE
	 Approved By Team Leader

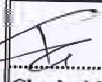


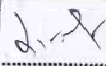



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No: RUDP/ICB/BRT-02											
Daily Application Rate Check for Priming work											
SUMMARY FOR THE MONTH OF APRIL 2018											
Type of Bitumen: 80/100 P.G											
Cutter Percentage: MC 70:MC30											
SN NO	Location	Date of Priming	Station From	to	Side of Priming	Area of Priming	Intersection Area m2	Total Area M2	Bitumen Consumption (ltr)	Application Rate By Deep Lit/m2	Application Rate By Tray Test Lit/m2
9	R-26	16-Apr-18	0+300	0+000	Both Side	1200	0	1200	1250	1.04	1.05
10	S13-C	17-Apr-18	0+175	0+460	Both Side	1895.25	0	1895.25	2000	1.06	1.04
11	S13-C	18-Apr-18	0+460	0+660	Both Side	1340	0	1340	1400	1.04	1.05
13	B3-3	24-Apr-18	0+705	0+600	Both Side	1029	0	1029	1050	1.02	1.04
14	R-21	26-Apr-18	0+740	0+970	Both Side	1587	0	1587	1650	1.04	1.05
Total									25400		
Required specification for Prime coat 1.0 Lit/M2 \pm 5% Specific Gravity of Bitumen 1.025											
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
 Checked By Engineer						 Submitted By Contract Manager					
						 Verified By QTY Engineer/CSE					
						 Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No: RUDP/ICB/BRT-02											
Daily Application Rate Check for TACK COAT											
SUMMARY FOR THE MONTH OF APRIL 2018											
Type of Bitumen: 80/100 P.G											
S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m ²	Total Area M ²	Bitumen Consumption	Application Rate	
			From	to						By Dip Lt/m ²	By Tray Test Lt/m ²
1	B-1	1-Apr-18	0+740	0+480	LHS	260*4.75	0	1235.00	1750	0.73	0.73
			0+690	0+480	RHS	210*4.75	0	997.50			
			0+470	0+435	LHS	35*4.75	0	166.25			
			Total					2398.75			
2	B-1	2-Apr-18	0+375	0+240	BHS	135*9.5	0	1282.50	925	0.72	0.73
3	B-1	3-Apr-18	0+170	0+060	RHS	110*4.75	0	522.50	575	0.73	0.73
			0+240	0+185	RHS	55*4.75	0	261.25			
			Total					783.75			
			4	B-1	4-Apr-18	0+060	0+000	LHS			
			0+170	0+000	RHS	170*4.9		833.00			
			Total					1418.00			
Required tack coat is 0.40 to 0.60 Lit/M ² According to Road Note -3, Section 711.2											
✓ Specific Gravity of Bitumen 1.025											
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
											
Checked By Engineer						Submitted By Contract Manager					
											
						Verified By QTY Engineer/CSE					
											
						Approved By Team Leader					



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No: RUDP/ICB/BRT-02											
Daily Application Rate Check for TACK COAT											
SUMMARY FOR THE MONTH OF APRIL 2018											
Type of Bitumen: 80/100 P.G											
S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate	
			From	to						By Dip Lit/m2	By Tray Test Lit/m2
5	B3-3	6-Apr-18	0+600	0+443	BHS	157*9.6	0	1507.20	1625	0.72	0.73
			0+443	0+290	LHS	153*4.8	0	734.40			
			Total				2241.60				
6	B3-3	7-Apr-18	0+443	0+290	RHS	163*4.8	0	782.40	2550	0.72	0.73
			0+290	0+000	BHS	290*9.6		2784.00			
			Total				3566.40				
7	B3-3	8-Apr-18	0+230	0+000	BHS	230*4.8	0	1104.00	800	0.72	0.72
8	B-1	10-Apr-18	0+470	0+380	BHS	90*9.5	0	570.00	410	0.72	0.73
9	R-16	12-Apr-18	0+558	0+350	BHS	208*8.95	0	1861.60	1350	0.73	0.73
Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2											
Specific Gravity of Bitumen 1.025											
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
 Checked By Engineer						 Submitted By Contract Manager					
						 Verified By QTY Engineer/CSE					
 Approved By Team Leader											



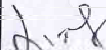

REGIONAL URBAN DEVELOPMENT PROJECT
Biratnagar Metropolitan City
Contract No: RUDP/ICB/BRT-02
Daily Application Rate Check for TACK COAT
SUMMARY FOR THE MONTH OF APRIL 2018

Type of Bitumen: 80/100 P.G

S.N.	Location	Date of Tack coat	Station From	Station to	Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate By Dip Lit/m2	Application Rate By Tray Test Lit/m2
10	R-16	13-Apr-18	0+350	0+400	BHS	350*6.5	0	2275.00	1650	0.73	0.72
11	R-28	15-Apr-18	0+639	0+302	BHS	337*4.05	0	1364.85	1000	0.73	0.73
12	B3-3	24-Apr-18	0+705	0+600	BHS	105*9.8	0	1029.00	750	0.73	0.73
13	S13-C	27-Apr-18	0+660	0+320	BHS	340*6.7	0	2278.00	1650	0.72	0.73
Total									11785		

Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2

✓ Specific Gravity of Bitumen 1.025

Contractor		Consultant	
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
 Checked By Engineer	 Submitted By Contract Manager	 Verified By QTY Engineer/CSE	 Approved By Team Leader



15. ANNEX-4: SOCIAL SAFEGUARD MONITORING
ENVIRONMENTAL MONITORING FORMATS
Attached



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

1. General information

Subproject: -RUDP/ICB/BRT/2

Month/Year: April-2018

Name of Contractor: -ZHONGGHENG

Construction Group/International Engineering Co Contract Package: RUDP/ICB/BRT/2

6. Sources and legal status of firewood used in labour camp and its legal status (use code)

Source & Status	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a.Source1											
b.Legal Status2											

Code

1.Source: Community Forest-1, Government Forest-2, Private Fores

2.Legal Status: Legal Agreement-1, Verbal Agreement -2,

7. Type and Ownership of labour camp (use code)

Type & Owners	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a.Type1	2	2	1	2	1	1	1	1	2	1	(tentative with tin/shanty)
b.Ownership2	1	1	1	1	1	1	1	1	1	1	puta)

Code

1.Camp Type: Hired House-1, Tented-2

2.Ownership: Private-1, Public-2, Government-3

8. Availability of first aid and safety (tick mark for first aid and number for safety)

First Aid & Safety	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. First-Aid Kit	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Some camps
b.Helmet	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	are added first
c. Gloves	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	aid box will be
d.Boots	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	provided such
e.Masks										✓	safety accessories
f.							✓		✓	✓	are provided but not fully used by labor

9.Number of locally employed labour involved in construction works (number)

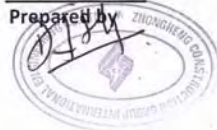
Sex	Brahmin	Chhetri	Janajati	Dalits	Remarks
Male	2	3	165	2	72	178					
Female											

11.Note of remarks

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Prepared by



Verified by

Monitored by



Regional Urban Development Project (RUDP)
Social Safeguard Monitoring
Status of Key Social Issues Compliance

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: April- 2018.

Name of Contractor :-ZHONGGHENG Construction
 GroupInternational Engineering Co pvt Beijing Chaina.

Contract Package: RUDP/ICB/BRT/2

S.N	Key Social Issue	Compliance Status			Implementing Agency	Note of Remarks	Deadline
		Full	Partial	None			
1	Availability of drinking water services	✓					
2	Availability of toilet facility in campsite	✓					
3	Legal source of fuel wood use			✓			
4	Legal document of fuel wood source			✓			
5	Use of safety accessories	✓					
6	Availability of first aid facility	✓					
7	Basic wage rate to construction workers	✓					
8	Equal wage rate to male and female workers		✓				
9	Compensation of temporarily occupied land	✓					
10	Compensation of temporarily occupied buildings	✓					
11	Legal document of temporarily occupied assets	✓					
12	use of child labour in construction activities			✓			

Prepared by:

Verified by:

Monitored by:



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

1. General information

Subproject: -RUDP/ICB/BRT/2

Month/Year: February- 2018.

Group/International Engineering Co pvt Beijing
China.

Contract Package: RUDP/ICB/BRT/2

2.Total numbers of contractor workers involved in road construction(write down the number)												
Type of Workers		Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
Local	Male											10 (91)
	Female											people / 146,44
Non-Local	Male	5	21	38	18	29	19	17	11	17	12	1145
	Female	2	1									17+141
Child Labour	Male											0-14 home
	Female											

3. Source and adequacy of drinking water facility in the labour camp(use code)

Sources	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Piped water			2			2	2	2	2		Handpump
b. Handpump	2	2	2	2	2					2	8 pipe bore
c. Tanker											used 14
d.											47 P3
Code:											
Insufficient-1	Sufficient-2	Plenty-3									

4. Type and number of toilets in the labour camp (write down the number)

Type	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Pit Latrine					1					1	
b. Pan	2	2	4	1		1	1	3	1		
c. Open											
d.											

5. Energy used in labour camp (tick mark)

Sources of E	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Firewood											no use of fire wood
b. Kerosene											and kerosene
c. L.P Gas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Prepared by:-

verified by:-

Monitored by:-



Environmental Monitoring Format
Regional Urban Development Project(RUDP)/Biratnagar



Name of Sub Project :RUDP/ Biratnagar

Contract Package: RUDP/ICB/BRT/02

Sub-project Component: Road Lanes Improvement/ Sewerage Drainage

Month: April 2018

Checklist

SN	Activity	Description/Present Status (Compliance/Partially Compliance/Non Compliance)	Remarks/ Corrective actions for Non- Compliance
1	Training		
1.1	Health, Safety and EMP trainings and awareness	Yes	Conducted last month (reference March 2018 check list)
1.2	Others awareness and skill trainings	Yes	Conducted last month (reference March 2018 check list)
2	Occupational health and safety		
2.1	Insurance for workers	Yes	
2.2	Personal Protective Equipment (PPE) provided to labour and are using (helmet, facemasks, muffs, gloves, boots, jacket, goggles etc.)	Yes (distributed to labour but partially used)	Orient or award to labour
2.3	Public notification Safety and warning signs and informative signboards in working sites for work safety	Yes	Provided at the working site immediately before work starts

Signature



2.4	Use of barricades, caution tape and flag	Yes	Provided at the working site immediately before work starts
3	Camp site management		
3.1	Location	DDC, Koshi Project, CN, Rani, Shantichowk,	Provided to all the camps
3.2	First aid facilities available at camp and worksites	Yes	
3.3	Drinking water supply and sanitation facilities/ pit latrines	Yes (Water quality not tested)	
3.4	Waste Disposal and Management facilities	Yes	Decaying and Non- decaying dustbin provided at the camp sites
3.5	Type of fuel used for cooking	LP Gas	
4	Spoil and Construction material Management		
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Reused in Backfilling	
4.2	Use of safe spoil disposal locations	Yes	
4.3	Disturbance to Pedestrian and traffic movement	Yes (Diversion are created)	
4.4	Use of private land and agreement with land owners	Yes	
5	Air ,Noise and Water Pollution		
5.1	Dust emission and Noise pollution sites	Water has been sprinkled to minimize dust pollution	
5.2	Water quality monitoring result and locations	No water quality test	Contractor instructed to test immediately

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5.3	Blockage of natural drainages, waterlogging, drain water discharge into farmland/ risky areas	No	
6	Quarrying of construction materials and Plants Installment		
6.1	Quarry/borrow operation sites	No	
6.2	Crusher plant and Asphalt plant operation restoration	Yes (Asphalt plant is operated)	
7	Impact/Disruption of Private properties		
7.1	Building structures	No	
7.2	Other utilities	No	
8	Impact/disruption of public infrastructures		
8.1	Irrigation canal	No	
8.2	Water supply pipe	Disturbed but repair as required	Repairing immediately from provisional sum
8.3	Access road	No (Traffic diversion with sign board)	
8.4	Electric/Telephone pole	Poles within RoW	Some are relocated and some are in the process of relocating
8.5	Others		
9	Sites for cultural and religious values		
9.1	Cultural and religious sensitive spots (if any)	N/A	

2.5



10	Forest and vegetation	N/A	
10.1	Number of trees removal	N/A	
10.2	No of tree plantation(Roadside)		
11	Accident cases and records	Yes	<p>One of the labours from B2-2 named Mohmmad Raja from Forbesgunj, india was hit by Roller during work. The victim was immediately taken to Novel medical College. No serious injury and victim was discharged providing simple treatment.</p> <p>One of the Engineers from Contracto Er. Ajad Yadav was encountered with Bike accident while visiting to site with local person, Anjan Bhattarai . He was immediately taken to Life Guard Hospital. No serious injury was found by X-ray report . Now he is at site.</p>
12	Employment to local people		Record of labour maintained
12.1	Men and women	Men 219-, Women -12	
12.2	Child labour (if any)	No	Immediate action against child labour
13	Establishment of Safeguard desk and meeting	Yes	
14	Grievances from local people and addressed	Yes	GRM recorded and addressed

Prepared By:

Er. Dhiraj Sardar(Safety In charge RUDP Biratnagar)



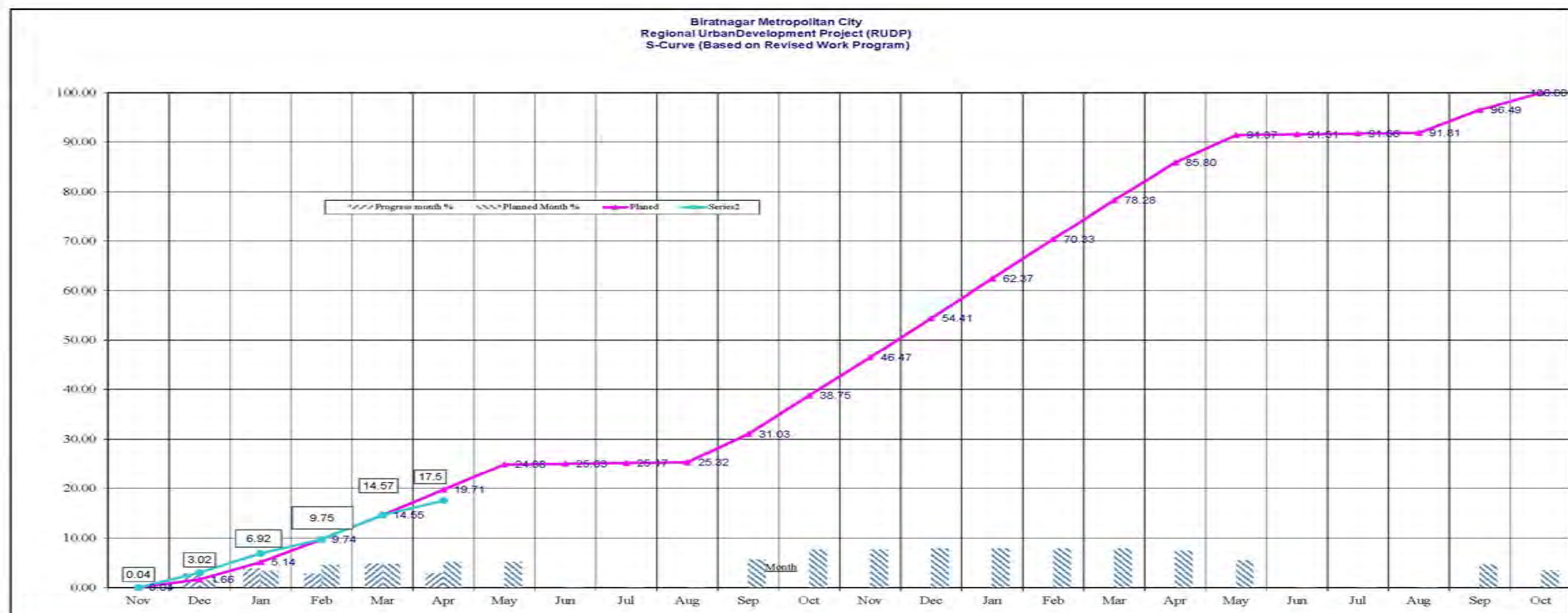
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16. ANNEX-5: S-CURVE

Attached





Year/Month	2017						2018												2019					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Planned Month %	0.04	1.63	3.48	4.60	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	3.51
Progress month %	0.04	2.98	3.90	2.83	4.82	2.93																		
Planned Cum %	0.04	1.66	5.14	9.74	14.55	19.71	24.88	25.03	25.17	25.32	31.03	38.75	46.47	54.41	62.37	70.33	78.28	85.80	91.37	91.51	91.66	91.81	96.49	100.00
Progress Cum%	0.04	3.02	6.92	9.75	14.57	17.50																		
planned month Amount in 100000	8.63	375.58	803.89	1063.54	1109.65	1193.63	1194.23	33.70	33.70	33.70	1320.43	1782.81	1783.51	1836.66	1838.96	1838.26	1838.32	1736.00	1286.85	34.01	34.00	34.00	1082.59	810.36
Achieved Month Amount in 100000	10.44	778.11	1018.33	738.94	625.12	311.53																		
planned Cum Amount in 100000	8.63	384.21	1188.10	2251.64	3361.29	4554.92	5749.15	5782.85	5816.55	5850.25	7170.68	8953.49	10737.00	12573.66	14412.62	16250.88	18089.20	19825.20	21112.06	21146.06	21180.06	21214.07	22296.65	23107.01
Achieved Cum Amount in 100000	10.44	788.55	1806.88	2545.81	3170.94	3482.46																		



17. ANNEX- 6: MASTER PLAN OF RUDP PROJECT
Attached



RUDP PROJECT (Road)

