



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



December 2019

Biratnagar Metropolitan City (BMC), Nepal

Table of Contents

EXECUTIVE SUMMARY	I
1. PROJECT DESCRIPTION	5
1.1. INTRODUCTION/BACKGROUND	5
2. CONTRACT DATA: - RUDP/ICB/BRT/2	6
3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS	7
3.1. SUB PROJECT COMPONENTS	9
3.1.1. SEWER LINES	9
3.1.2. STORM WATER DRAIN	13
3.1.3. ROADS AND LANES	13
3.1.4. ROAD SIDE DRAIN	31
3.2. ENVIRONMENTAL ASPECT	42
3.2.1. BORROW/ QUARRY SITES	42
3.2.2. DISPOSAL OF SPOIL AND CONSTRUCTION WASTE	42
3.2.3. PROVISION AND MAINTENANCE OF TOILETS	43
3.2.4. CRUSHING PLANTS	43
3.2.5. ASPHALT PLANTS AND BATCHING PLANTS	43
3.2.6. OCCUPATIONAL HEALTH AND SAFETY MEASURES	43
3.3. SOCIAL ASPECT	44
3.4. SAFEGUARD/ GESI COMPONENT	44
3.4.1. COMMUNITY AWARENESS:	44
3.4.2. GRIEVANCE REDRESSES MECHANISM:	44
3.4.3. GENDER EQUITY AND SOCIAL INCLUSION (GESI):	44
3.4.4. STATUS OF SOCIAL AND ENVIRONMENTAL SAFEGUARD MEASURES	45
3.4.5. STATUS OF RELOCATION OF SERVICES	45
3.5. FINANCIAL PLAN	46
3.5.1. DISBURSEMENT RECORDS IN CONSTRUCTION	46
4. OBJECTIVES AND SCOPE OF WORKS	48
4.1. OBJECTIVES	48
4.2. SCOPE OF WORKS	48
4.3. ORGANIZATION AND STAFFING	49
4.4. CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE	51
5. PROGRESS OF SUB – PROJECT COMPONENTS	53
5.1. CONSTRUCTION MATERIALS	53
5.2. PROGRESS ACHIEVED TILL DATE	53
5.3. KEYEVENTS	54
6. DETAILS OF PRE CAST ACTIVITIES	55
7. CONTRACTOR'S MANPOWER	58
8. CONTRACTOR'S EQUIPMENT	59

9. WORK PLAN FOR THE NEXT MONTH	60
ANNEX-1: PHOTOGRAPHS OF DECEMBER, 2019	61
ANNEX-2: MINUTES OF MEETING DECEMBER, 2019	65
ANNEX-3: LABORATORY TEST RESULTS OF DECEMBER, 2019	68
ANNEX-4: SOCIAL& ENVIRONMENT SAFEGUARD	142
ANNEX-5: S-CURVE	152
ANNEX-6: MASTER PLAN OF RUDP PROJECT	155

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 in the following Chapters are mentioned below:

1. **Introduction/ Background-** It provide brief Account on 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 a brief Account on the 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 the 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 works are 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. Sometimes, the project gets delayed due to unforeseen obstacles which are rampant in the case of Nepal. Such events are also enlisted to clarify the reason for delay in the project.
6. **Details of Pre Cast Activities-**In the urban area, as ongoing projects creates a lot of disturbances and difficulties in the life of the people living in the project area, the work has to be conducted in the speedy manner to finish it as soon as possible. Precast of the project components are the best alternative to overcome this issue and details of precast activities are provided in this chapter.
7. **Contractor's Manpower and Contractor's Equipment-** Chapter 7 and Chapter 8 deal with summary of Manpower and Equipment respectively stating whether Resources owned by the Contractor are sufficient for the execution of Contract.

1. PROJECT DESCRIPTION

1.1. 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 28thOctober 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.



2. 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 (Scheduled)	1 st November 2019
Date of Completion (after EOT-1)	18 th May 2020
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Contract Amount including PS and VAT (Corrected)	NRs. 2,611,088,390.60
Contract Amount including PS and VAT (after VO-1)	NRs. 2,760,853,674.59
Additional Financing 100% funded by BMC after VO-1 (provisional items)	NRs. 39,999,893.49



General Features	
Progress	after VO-1
Road Rehabilitation (Asphalt)	69.78%
Sewer Line	99.46%
Storm Drain	100.00%
Road Side Drain	89.28%
Integrated Solid Waste Management (ISWM) Design	Inception Report as well as Stakeholder's Analysis, Communication Strategy and Consultation Plan for Integrated Solid Waste Management (ISWM) has already been submitted. Due to Socio Environment Problem, Progress of Integrated Solid Waste Management (ISWM) design has been hindered.
Physical Progress up to date	<p>With respect to Revised Work Program-01 (before VO-01): Planned : 100%, Actual : 85.40%; Lead(+) or Lag(-) by (-) 14.60% Lag</p> <p>With respect to Revised Work Program-02 (after VO-01): Planned: 72.98%, Actual: 73.12%; Lead (+) or Lag (-) by (-) 0.14% Lead.</p>
Financial Progress up to date (<i>on the basis of IPC forwarded for disbursement</i>)	<p>In Percentage: 70.83%, In Figure: NRs. 1,955,384,063.81 (including VAT and PS) up to IPC –14 wrt to VO-1.</p> <p>In Words: NRs. One Billion Nine Hundred Fifty Five Millions Three Hundred Eighty Four Thousand Sixty Three and Eighty One Paisa Only.</p>

3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

S. No.	Description	Unit	Quantity as per VO-1	Progress up to date	Remaining	Progress Status expressed in (%) wrt VO-1	Remarks
1	Sewer Line						
a	HDPE/RCC	m	18,559.80	18,459.80	100.00	99.46%	
b	Manhole	No.	606.00	604.00	2.00	99.67%	
c	Sewer Inlet	No.	1,010.00	627.00	383.00	62.08%	
d	House Connection	No.	3,784.00	1,576.00	2,208.00	41.65%	
2	Storm Water Drain						



S. No.	Description	Unit	Quantity as per VO-1	Progress up to date	Remaining	Progress Status expressed in (%) wrt VO-1	Remarks
a	RCC Drain	m	585.00	585.00	-	100.00%	
b	Piles	No.	138.00	138.00	-	100.00%	
3	Road						
a	Sub grade	m	66,718.00	53,226.93	13,491.07	79.78%	
b	Sub base	m	66,718.00	53,226.93	13,491.07	79.78%	
c	Base	m	66,718.00	48,987.98	17,730.02	73.43%	
d	Prime	m	66,718.00	46,559.11	20,158.89	69.78%	
e	Asphalt	m	66,718.00	46,559.11	20,158.89	69.78%	
4	Road Side Drain	m	35,424.00	31,626.69	3,797.31	89.28%	

3.1. SUB PROJECT COMPONENTS

3.1.1. SEWER LINES

Trunk Line T1 & T2 were already completed in STIUEIP (Secondary Town Integrated Urban Environmental Improvement Project) and remaining part of sewer lines in T4 completed and T3 have been identified and necessary survey and construction works were performed, almost all the lines were completed except 100m length of secondary sewer lines of T3 east of Sanihat chowk.

Details of proposed sewer lines are as below: -



Table 1: PROPOSED ALL MAJOR COMPONENTS OF THE PROJECT

S. No.	Description	Unit	Original Quantity	Quantity after VO-1
1	Sewerage Pipe Supply and Installation	m	20,082.00	18,559.80
	Reinforced Concrete Pipe laying and jointing		2241.00	1,967.50
	Line T2 (Secondary)	m	206.00	205.00
	Line T3 (Trunk)	m	1905.00	1,632.50
	Line T4 (Trunk)	m	130.00	130.00
	HDPE laying and jointing	m	17,841.00	16,592.30
	Line T1 (Secondary)	m	1,825.00	1,743.20
	Line T2 (Secondary)	m	3,927.00	3,153.40
	Line T3 (Secondary)	m	9,997.00	9,643.80
	Line T4 (Secondary)	m	2,092.00	2,051.90
2	Manhole (Brick / RCC)	no.	685.00	606.00
3	Sewer Inlet	no.	1,010.00	1,010.00
4	House Connection	no.	3,784.00	3,784.00
5	Reinstatement of Roads	km	73.86	66.718
6	Road side Drain	Km	26.05	35.424
7	Storm Water Drain	m	652.8	585.00

Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till date

SN	Description	Quantity as per VO-01		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	
Hume Pipe:										
1	Hume pipe (T2)	205.00	6.00	205.00	6.00			205.00	6.00	
2	Hume pipe (T3)	1,632.50	25.00	1,632.50	25.00			1,632.50	25.00	
3	Hume Pipe (T4)	130.00	4.00	130.00	4.00			130.00	4.00	
Subtotal in (m)		1,967.50	35.00	1,967.50	35.00			1,967.50	35.00	
HDPE Pipe:										
1	HDPE (T1)	1,743.20	54.00	1,743.20	54.00			1,743.20	54.00	
2	HDPE (T2)	3,153.40	121.00	3,153.40	121.00			3,153.40	121.00	
3	HDPE (T3)	9,643.80	340.00	9,543.80	333.00		5.00	9,543.80	338.00	
4	HDPE (T4)	2,051.90	56.00	2,051.90	56.00			2,051.90	56.00	
Subtotal in (m)		16,592.30	571.00	16,492.30	564.00		5.00	16,492.30	569.00	



SN	Description	Quantity as per VO-01		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	Length (m)	Manhole (Nos.)	
Total		18,559.80	606.00	18,459.80	599.00	-	5.00	18,459.80	604.00	99.46%

SN	Description	Quantity as per VO-01 (Nos.)	Up to Pre Month	This month	Total to date	Progress %
1	Sewer inlet	1,010.00	604.00	23.00	627.00	62.08
2	House connection	3,784.00	1,491.00	85.00	1,576.00	41.65



3.1.2. STORM WATER DRAIN

The storm water drain CN2, and CN3 has been provisioned in Regional Urban Development Project (RUDP). The Contractor has already completed the works except some minor works at inlet and outlet which have been proceeding soon. The detail of the progress is shown in the table:

Table: 3 PROPOSED and PHYSICAL PROGRESS in STORM WATER DRAINS till date.

S N	Name of Drain	Length in m					Length of Covered Drain in m	Remarks
		Original	Revised after VO-1	Progress		Cumulative		
				Previous	This Month			
1	CN2- CN3(Chyan ghBaariNala)	652.89	585.00	585.00		585.00	585.00	100% Completed
2	CN2- CN3(Chyan ghBaariNala)	132 Nos. of piles	138 Nos. of piles	138 Nos. of piles		138 Nos. of piles		100% Completed

3.1.3. 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. Some of the roads of the project has been completed and some of them are in the process of being upgraded.

Out of 73.86 km. about 53.226 Km. has been attempted for Sub Base but due to start unseasonal monsoon, asphalt work is delaying.

About 46.559 km. asphalt work is completed. The summary of physical progress is presented below: -



Table No:-4 PROPOSED and PHYSICAL PROGRESS of pavement works till date

SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
1	R42	Bhagwati Marg	218.00	11.00	229.00	229.00	229.00	229.00			
2	R5	College Road	650.00		650.00	650.00	544.50	544.50			
3	R5	Chulachuli Road	230.00	(34.00)	196.00	196.00	196.00	196.00			
4	R5			191.60	191.60	191.60	191.60	191.60			
5	B2	Gauri Shankar Marg	2,152.00		2,152.00	2,152.00	2,152.00	2,152.00	210.00		
6	R65	Satghumti Marg	320.00		320.00	320.00	320.00				
7	R107		215.00		215.00	215.00	215.00	174.00			
8	R107 a		50.00		50.00	50.00	49.00	49.00			
9	R104	VIP Marg	273.00	8.15	281.15	281.15	281.15	281.15			
10	R8	Madhumara Marg	600.00	(46.95)	553.05	553.05	553.05	553.05			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
11	B1	Kanchan Marg	1,173.00		1,173.00	1,173.00	1,106.00	1,106.00		1,106.00	
12	R21	Pratibha Marg	1,330.00	37.10	1,367.10	1,367.10	1,367.10	1,367.10		1,012.80	
13	B3	Keshaliya Marg	1,574.00	53.75	1,627.75	1,627.75	1,627.75	1,627.75			
14	S13		1,617.00	70.30	1,687.30	1,687.30	1,687.30	1,687.30		1,812.60	
15	R12		880.00		880.00	880.00	880.00	740.00			
16	R12	Kanchha Dai Marg	900.00		900.00	900.00	900.00	289.50			
17	Rani site	Rani	4,023.00	(727.40)	3,295.60	3,295.60	3,295.60	3,295.60			
18	R16	Satya Marg	604.00		604.00	604.00	604.00	554.90			
19	R26	Pasang Marg	654.00	(56.00)	598.00	598.00	598.00	598.00			
20	R28	Pustakalaya Marg	635.00		635.00	635.00	621.20	539.20			
21	R27	Peepal Marg	734.32	(132.72)	601.60	601.60	601.60	601.60		639.20	



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
22	R25	Devi Marg	580.00		580.00	580.00	580.00	566.80			
23	R24	Prabhat Marg	518.15		518.15	518.15	518.15	518.15			
24	R37	Banglamukhi Marg	477.00		477.00	477.00	477.00	477.00			
25	R7	Manakamana Marg	542.00		542.00	542.00	542.00	542.00			
26	R7	in between R18 to R27	400.00		400.00	400.00	400.00	400.00			
27	R30	Shanti Marg	123.10	106.40	229.50	229.50	229.50	229.50			
28	R9	Fadindra Marg	119.00		119.00	119.00	119.00	119.00			
29	R9		230.00		230.00	230.00	230.00	140.00			
30	S11	Samrat Marg	660.00		660.00	660.00	504.60	504.60		504.60	
31	R22	Amar Marga	367.65		367.65	367.65	367.65	367.65			
32	R29	Shanti Marg				838.70					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
			684.70	154.00	838.70		838.70	838.70		585.60	
33	R36	Gaurav Marg	220.00	2.00	222.00	222.00	222.00	222.00		440.00	
34	R33	Tarun Marg	280.00	3.00	283.00	283.00	283.00	283.00			
35	R64	Satya Narayan Marg	121.00		121.00	121.00	121.00	-			
36	R8		225.00		225.00	225.00	225.00	225.00			
37	N36		190.00		190.00	190.00	186.95	186.95			
38	R188	Shakti Marg	120.00	(4.00)	116.00	116.00	116.00	116.00			
39	R2	Main Road	2,800.00		2,800.00	2,800.00	2,604.70	2,604.70		350.00	
40	T3 Line 6A	Pandit Meghnath Marg	220.00	59.00	279.00	279.00	279.00	279.00			
41	T2 Line 24C	Nava Jyoti Marg	205.00		205.00	205.00					
42	T2 Line 24D	Nava Jyoti Marg	210.00		210.00	210.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
43	R63 (DSP Road)	DSP Road	420.00	4.24	424.24	424.24	424.24	424.24			
44	R90	Shakti Marg	320.00	130.00	450.00	450.00	450.00	450.00		640.00	
45	R77	Arniko Marg	80.00	7.20	87.20	87.20	87.20	87.20			
46	R76	Mitra Marg	270.00		270.00	270.00	270.00	270.00		541.20	
47	R183	Nava Jyoti Marg	240.00		240.00	240.00	220.00	220.00			
48	T1 L16B	Xenial Front	210.00		210.00	210.00	205.00	205.00			
49	T1L16A	Xenial South	180.00		180.00	180.00	180.00	180.00			
50	R114	Dharanidhar Marg	560.00		560.00	560.00	560.00	560.00		560.00	
51	R113	Kavi Lekh Marg	740.00		740.00	740.00	740.00	740.00			
52	R5a		54.70		54.70	54.70	54.70	54.70			
53	R3	Dharamban Marg	2,383.00		2,383.00	2,383.00	2,383.00	2,150.30		2,080.30	



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
54	R3 - under STIUEIP	Tinpaini to Puspallal chowk	-		-					4,000.00	
55	R78	Sombare - Highway	92.00		92.00	92.00	92.00	92.00			
56	R84	West of school	473.20		473.20	473.20	236.00	236.00			
57	R84			93.60	93.60	93.60	93.60	93.60			
58	R85	Machha Line	160.00		160.00	160.00	160.00	160.00			
59	R87	Mahabir Chowk	148.00	6.00	154.00	154.00	154.00	154.00			
60	R86	Petrol pump side -R12	200.00		200.00	200.00	191.00	191.00			
61	R11	R18/R86	281.00		281.00	281.00	205.00	205.00			
62	N3	Jatuwa	117.00	5.00	122.00	122.00	122.00	122.00			
63	N4	Jatuwa	168.00		168.00	168.00	168.00	168.00			
64	R10	Ram Marga				292.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
			292.00		292.00		292.00	292.00		853.20	
65	R10	R35 to R21		393.00	393.00	393.00	393.00	393.00			
66	T2L26F	APF	55.00		55.00	55.00					
67	T2L27		80.00		80.00	80.00	80.00	80.00			
68	R122		265.55		265.55	265.55	265.55	265.55		497.40	
69	N9		220.42		220.42	220.42	220.42	220.42			
70	R17		365.00	8.00	373.00	373.00	373.00	373.00		730.00	
71	R18		370.00	17.00	387.00	387.00	387.00	387.00			
72	N2		105.84		105.84	105.84	105.84				
73	T3L6	Moti marga	170.00		170.00	170.00	170.00	170.00			
74	T3L6	Elite club - CDO Office	107.00		107.00	107.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
75	T3L6	Balmandir - Ganesh Mandir	380.00		380.00	380.00					
76	T3L6	CDO Office front	49.40		49.40	49.40					
77	T3L6A	Golchha Marga	220.00		220.00	220.00	220.00	220.00			
78	T3L23	Madhumara road	541.00		541.00	541.00	541.00	541.00		358.40	
79	R45	Bata road	505.00		505.00	505.00	315.00	315.00			
80	T3L21		400.00		400.00	400.00	400.00	400.00		774.00	
81	N5	R16 to R18	70.00	1.00	71.00	71.00	71.00	71.00		122.00	
82	T3L39		400.00		400.00	400.00	245.80	245.80		491.00	
83	T3L39A		130.00	(41.00)	89.00	89.00	89.00	89.00		179.40	
84	T3L39B		80.00	(20.00)	60.00	60.00	60.00	60.00		117.60	
85	T3L39C					100.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
			100.00		100.00						
86	R68 - T2L24G		220.00		220.00	220.00	220.00	218.00			
87	N10		194.00		194.00	194.00	194.00	194.00			
88	T3L24C		170.00		170.00	170.00					
89	T3L9		278.00		278.00	278.00					
90	R6		1,228.20		1,228.20	1,228.20	1,228.20	1,228.20			
91	N24		136.00	(20.00)	116.00	116.00	116.00	116.00			
92	R31		188.70		188.70	188.70	188.70	188.70			
93	Bindabasini Marga		352.28		352.28	352.28	352.28	352.80			
94	Bhattimode to Hartalihaat		166.50		166.50	166.50	166.50	166.50			
95	R73					217.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
			217.00		217.00		217.00	217.00			
96	R6 (R41-R44)	Bata Galli	269.00		269.00	269.00	269.00	269.00			
97	R6		280.00	1,042.00	1,322.00	1,322.00	1,322.00	1,322.00			
98	R6	Pratibha chowk to N2	510.80		510.80	510.80	510.80	510.80			
99	R9 (R41-R7)		194.80		194.80	194.80	194.80	194.80			
100	R44	Thakurbari Road	482.50		482.50	482.50	482.50	357.50			
101	R102	Main	140.00		140.00	140.00	140.00	140.00			
102	R102	Branch	71.30		71.30	71.30	71.30	71.30			
103	R103		170.40		170.40	170.40	170.40	170.40			
104	R32		188.00		188.00	188.00	188.00	188.00			
105	T2L18Y		116.20		116.20	116.20	116.20	116.20			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
106	R20		108.00		108.00	108.00	108.00	108.00			
107	R82	Everest School	530.00		530.00	530.00	530.00	530.00			
108	T1L5		140.00		140.00	140.00	140.00	140.00			
109	T1L5A		533.50		533.50	533.50	533.50	533.50			
110	T3L23C	Jay Nepal	272.20		272.20	272.20	65.20	65.20			
111	T3L23C	North to Jay Nepal		82.90	82.90	82.90	82.90	82.90			
112	T3L25B		195.00		195.00	195.00					
113	T3L25C		140.00		140.00	140.00					
114	R3	T3 Trunk	465.00		465.00	465.00	370.00				
115	Nagmandir to R3		55.00		55.00	55.00	55.00	55.00			
116	R4		220.00		220.00	220.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
117	R75		130.00	13.50	143.50	143.50	143.50	143.50			
118	R43		250.00	79.40	329.40	329.40	329.40	329.40			
119	T219P		124.80		124.80	124.80	124.80	124.80			
120	T219Q		113.70		113.70	113.70	113.70	113.70			
121	R106		130.00		130.00	130.00	120.90				
122	T3L12		80.00		80.00	80.00	50.90	50.90			
123	R46		340.00		340.00	340.00					
124	T3L11E		180.00	(55.45)	124.55	124.55	124.55	124.55			
125	T3L13D		70.00		70.00	70.00					
126	T3L13C		100.00		100.00	100.00	100.00	100.00			
127	R34		157.00		157.00	157.00	157.00	157.00			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous (Revised)	This Month		m	m	m	m	m	
128	T3L13E		80.00		80.00	80.00	65.00	65.00			
129	T3L13K		154.00		154.00	154.00	75.90	75.90			
130	R19		247.00		247.00	247.00	228.00	228.00			
131	R41		540.00		540.00	540.00	540.00	540.00			
132	R9B		90.00		90.00	90.00	90.00	83.85			
133	R67		119.40		119.40	119.40	119.40	119.40			
134	R74		100.00		100.00	100.00	100.00	100.00			
135	R9A		109.00		109.00	109.00	109.00	109.00			
136	T2L19F		120.00		120.00	120.00	117.20	117.20			
137	T3L7A		190.00		190.00	190.00	158.00	158.00			
	Total		50,971.31	1,441.62	53,226.93	53,226.93	48,987.98	46,559.11	210.00	18,395.30	



Table No:-4.1Footpath (Work Progress till date)

SN	Road Number	Type*	Progress in m			Footpath			Remarks
			Previous	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
1	R2	Precast block	602.00		602.00	602.00	1.10	662.20	RHS
2	R2	Precast block	602.00		602.00	602.00	1.10	662.20	LHS
3	R29	Precast block	330.00		330.00	330.00	0.90	297.00	RHS
4	R29	Precast block	330.00		330.00	330.00	0.90	297.00	LHS
5	R28	Precast block	322.00		322.00	322.00	0.90	289.80	RHS
6	R28	Precast block	335.00		335.00	335.00	0.90	301.50	LHS
7	R28	Precast block	341.00		341.00	341.00	0.90	306.90	RHS
8	R21	Precast block	365.00		365.00	365.00	1.00	365.00	RHS
9	R21	Precast block	765.00		765.00	765.00	1.00	765.00	LHS
10	R78	Precast block	75.00		75.00	75.00	1.20	90.00	RHS
11	R78	Precast block	75.00		75.00	75.00	1.20	90.00	LHS
12	R77	Precast block	115.00		115.00	115.00	0.90	103.50	RHS
13	R77	Precast block	115.00		115.00	115.00	0.90	103.50	LHS
14	R76	Precast block	275.00		275.00	275.00	0.95	261.25	RHS
15	R76	Precast block	275.00		275.00	275.00	0.95	261.25	LHS
16	R75	Precast block	160.00		160.00	160.00	0.95	152.00	RHS
17	R75	Precast block	160.00		160.00	160.00	0.95	152.00	LHS



SN	Road Number	Type*	Progress in m			Footpath			Remarks
			Previous	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
18	R10	Precast block	700.00		700.00	700.00	0.95	665.00	RHS
19	R10	Precast block	700.00		700.00	700.00	0.95	665.00	LHS
20	R31	Precast block	175.00		175.00	175.00	0.95	166.25	RHS
21	R31	Precast block	175.00		175.00	175.00	0.95	166.25	LHS
22	R32	Precast block	185.00		185.00	185.00	0.30	55.50	RHS
23	R32	Precast block	185.00		185.00	185.00	0.30	55.50	LHS
24	R33	Precast block	285.00		285.00	285.00	0.90	256.50	RHS
25	R33	Precast block	170.00		170.00	170.00	0.90	153.00	LHS
26	R16	Precast block	170.00		170.00	170.00	1.20	204.00	RHS
27	R16	Precast block	170.00		170.00	170.00	1.20	204.00	LHS
28	R6	Precast block	700.00		700.00	700.00	1.20	840.00	RHS
29	R6	Precast block	700.00		700.00	700.00	1.20	840.00	LHS
30	B1	Precast block	490.00		490.00	490.00	1.20	588.00	RHS
31	B1	Precast block	490.00		490.00	490.00	3.40	1,666.00	LHS
32	B2 (2)	Precast block	715.00		715.00	715.00	0.59	421.85	RHS
33	B2 (2)	Precast block	715.00		715.00	715.00	1.65	1,179.75	LHS
34	B2 (1)	Precast block	131.00		131.00	131.00	2.60	340.60	RHS
35	B2 (1)	Precast block	131.00		131.00	131.00	0.90	117.90	LHS



SN	Road Number	Type*	Progress in m			Footpath			Remarks
			Previous	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
36	B3	Precast block	670.00		670.00	670.00	0.70	469.00	RHS
37	B3	Precast block	670.00		670.00	670.00	0.70	469.00	LHS
38	S11	Precast block	112.00		112.00	112.00	0.95	106.40	RHS
39	S11	Precast block	75.00		75.00	75.00	1.21	90.75	LHS
40	Rani	Precast block	425.00		425.00	425.00	1.00	425.00	RHS
41	Rani	Precast block	425.00		425.00	425.00	1.00	425.00	LHS
42	R3	Precast block	250.00		250.00	250.00	1.10	275.00	RHS
43	R3	Precast block	1,050.00		1,050.00	1,050.00	1.10	1,155.00	LHS
44	R27	Precast block	400.00		400.00	400.00	1.10	440.00	RHS
45	R27	Precast block	400.00		400.00	400.00	0.85	340.00	LHS
46	R26	Precast block	300.00		300.00	300.00	1.23	369.00	RHS
47	R26	Precast block	285.00		285.00	285.00	1.10	313.50	LHS
48	R25	Precast block	205.00		205.00	205.00	1.00	205.00	RHS
49	R25	Precast block	201.00		201.00	201.00	1.00	201.00	LHS



Table No:-4.2 Road improvement Works (Work Progress till date)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress wrt VO-01
1	Subgrade	m	73,860.00	52,305.31	921.62	53,226.93	79.78%
2	Sub Base	m	73,860.00	52,076.21	1,150.72	53,226.93	79.78%
3	Base	m	73,860.00	47,238.66	1,749.32	48,987.98	73.43%
4	Prime/Tack	m	73,860.00	39,914.40	6,644.71	46,559.11	69.78%
5	Asphalt	m	73,860.00	39,914.40	6,644.71	46,559.11	69.78%



3.1.4. ROAD SIDE DRAIN

Most of the roads under this project for upgrading is without drain or existing drain are in poor condition, on instruction from the employer at various stretches the construction works were ongoing and some of them have been completed. The project has provisioned drain at either sides or one side as per available RoW of the road. The contractor has already started drain works at many locations. The progress for the drain works is listed below:

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

SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
1	B1	Kanchan Marg	90.00		90.00	90.00		
2	R29	Shanti Marg	256.52		256.52	256.52		
3	N36		185.88		185.88	185.88		
4	R8		219.83		219.83	219.83		
5	R7	Devi Marg and Pipal Marg	149.58		149.58	149.58		
6	R63	DSP Road	418.79		418.79	418.79		
7	R9	Baglamukhi path	103.20		103.20	103.20		
8	S13	Udaya Marga	158.10		158.10	158.10		
9	N33		70.00		70.00	70.00		
10	R28	Pustakalaya Marg	278.00		278.00	278.00		
11	R90	Shakti Marg	313.25		313.25	313.25		
12	R114	Dharanidhar Marg	312.33		312.33	312.33		
13	R11	Om Shiv Marg	225.17			225.17		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
					225.17			
14	R18		381.50		381.50	381.50		
15	R17		75.00		75.00	75.00		
16	R113	Kavi Lekhnath Marg	72.45		72.45	72.45		
17	R77	Arniko Marg	80.00		80.00	80.00		
18	R76	Mitra Marg	270.00		270.00	270.00		
19	N9	Devi Marga	22.70		22.70	22.70		
20	N4		146.38		146.38	146.38		
21	R33	Tarun Marg	264.48		264.48	264.48		
22	R36	Gaurav Marg	216.45		216.45	216.45		
23	R86	Janpath Marg	187.55		187.55	187.55		
24	R183	Nava Jyoti Marg	211.05		211.05	211.05		
25	R7a		65.00		65.00	65.00		
26	Rani site	Rani B	530.00		530.00	530.00		
27	Rani site	Rani A	270.00		270.00	270.00		
28	N3		110.00		110.00	110.00		
29	N5		65.00			65.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
					65.00			
30	R21	Binayak Marga	388.25		388.25	388.25		
31	R2	Main Road	2,092.50	90.00	2,182.50	2,182.50		
32	T1L16B	Xenial Front	205.68		205.68	205.68		
33	T1L16A	Xenial South	150.20		150.20	150.20		
34	R75	Tintoliya Marga	127.50		127.50	127.50		
35	R122	Amar Marga	250.48		250.48	250.48		
36	R18 Branch		30.00		30.00	30.00		
37	R7(b) (Neuro to sidhartha chowk)	Siddhartha Marga	330.00		330.00	330.00		
38	R12	Sukra Path	290.00		290.00	290.00		
39	R42	Jahada Marga	171.00		171.00	171.00		
40	R6	Shahi Marg	760.00		760.00	-	760.00	
41	R21(a)	DharamBadh Junction	80.00		80.00	80.00		
42	R78	Binayak Marga	70.00		70.00	70.00		
43	R188	Shakti Marg	115.60		115.60	115.60		
44	R40	Brahma Kumari Marga	350.00		350.00	350.00		
45	Rani Site C		97.50			97.50		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
					97.50			
46	Ranit Site D		131.45		131.45	131.45		
47	T3L21	Moti Marga	385.95		385.95	385.95		
48	T3L39	Gaheli Marga	340.00		340.00	340.00		
49	T3 Line 39A		90.00		90.00	90.00		
50	T3 L39B		90.00		90.00	90.00		
51	T2L27	Bhumi Prashasan Junction	79.50		79.50	79.50		
52	T4 Line 1	Sailesh Marg	100.00		100.00	100.00		
53	N2		95.00		95.00	95.00		
54	T2 Line 26E	College Road	90.00		90.00	90.00		
55	T2 Line 18C	Maisthan Marga	102.00		102.00	102.00		
56	T2Line 18A	Makalu Marga	60.00		60.00	60.00		
57	R6 (T3L11i)		247.50		247.50	247.50		
58	R9 (T3L11k)	Tathasthu Marga	180.00		180.00	180.00		
59	R45 (T3Line10D)	Dadhiram Marga	260.00		260.00	260.00		
60	R9, T2 L19	Fanindra Marga	380.00		380.00	380.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
61	R7c (Neuro to Shanti Chowk)	Siddhartha Marga	305.00		305.00	305.00		
62	R84	School Marga	663.00		663.00	663.00		
63	R85	Lekhanath Marga	150.00		150.00	150.00		
64	R87	Byas Marga	150.00		150.00	150.00		
65	Rani B (Bus park)		90.00		90.00	90.00		
66	R8(a)	Madhumara Marg	285.00		285.00	285.00		
67	T3L23A		280.00		280.00	280.00		
68	Rani E		85.00		85.00	85.00		
69	R102	Hamro Marg	132.50		132.50	132.50		
70	R10/R10a	Ram Marga	940.36		940.36	940.36		
71	N10	APF	150.00		150.00	150.00		
72	R23	Bani Marg	200.00		200.00	200.00		
73	R103	Vibuti Marga	162.50		162.50	162.50		
74	T3L6	Sahid Marga	350.00		350.00	350.00		
75	P1, T3L6A	Pandit Meghnath Marga	260.00		260.00	260.00		
76	T2 L24C & D	Hanuman Das Marga	130.00	35.00	165.00	165.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
77	R99	APF	187.00		187.00	187.00		
78	T2 L25		300.00		300.00	300.00		
79	R20		60.00		60.00	60.00		
80	T2L24F		60.00		60.00	60.00		
81	R105		150.00		150.00	150.00		
82	R34	Prabhu Marg	158.35		158.35	158.35		
83	R35	Garima Marg	138.00		138.00	138.00		
84	R107		160.00		160.00	160.00		
85	T3L13D		70.63		70.63	70.63		
86	T3L13E		62.40		62.40	62.40		
87	T3L11E		110.00		110.00	110.00		
88	B2		76.50		76.50	76.50		
89	R78		35.00		35.00	35.00		
90	R7b	in between R26 & R27	288.50		288.50	288.50		
91	T3L21A		25.00		25.00	25.00		
92	R74		96.00		96.00	96.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
93	R46		120.00	112.00	232.00	232.00		
94	R101		160.00		160.00	160.00		
95	T3L7A		125.00		125.00	125.00		
96	T3L8		75.00		75.00	75.00		
97	R20		100.00		100.00	100.00		
98	R5		200.00	74.00	274.00	274.00		
99	R67		110.00		110.00	110.00		
100	R82		350.00		350.00	350.00		
101	T1L13A		100.00		100.00	100.00		
102	T1L14A		150.00		150.00	150.00		
103	R68		200.00		200.00	200.00		
104	T3L22A		335.00		335.00	335.00		
105	T3L22B		120.00		120.00	120.00		
106	T3L25C		130.00		130.00	130.00		
107	T3L11B		60.00		60.00	60.00		
108	T3L11M		50.00		50.00	50.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
109	R106		70.00		70.00	70.00		
110	R41		520.00		520.00	520.00		
111	T2L19B		110.00		110.00	110.00		
112	R30		180.00		180.00	180.00		
113	T3L13C		225.00		225.00	225.00		
114	T3L13J		72.53		72.53	72.53		
115	T2L18Y		100.00		100.00	100.00		
116	T2L19P		114.38		114.38	114.38		
117	T2L19Q		126.55		126.55	126.55		
118	R9A		208.73		208.73	208.73		
119	R9B		25.00		25.00	25.00		
120	T3L7	Sahid Marga	355.00		355.00	355.00		
121	T2L18K		40.00		40.00	40.00		
122	T3L23C		105.00		105.00	105.00		
123	T2L24E	Mahabir Marga	60.00		60.00	60.00		
124	R44		390.00		390.00	390.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
125	R110		150.00		150.00	150.00		
126	Parichaya Marga		130.00		130.00	130.00		
127	T3L25B		200.00		200.00	200.00		
128	T1L5, 5A		590.00		590.00	590.00		
129	R82		110.00		110.00	110.00		
130	T2L19Y		150.00		150.00	150.00		
131	T3 Trunk	Tinpaini to Devkota Chowk	1,140.00	35.00	1,175.00	1,175.00		
132	T2L19F		55.00		55.00	55.00		
133	T2L18D		20.00		20.00	20.00		
134	R19		175.00		175.00	175.00		
135	R83	Shiva Marga	125.00		125.00	125.00		
136	T310B, T3L7D (R46)	Rangeli Road	400.00		400.00	400.00		
137	T2L19G		60.00		60.00	60.00		
138	R4 (T2 Trunk)	Jatuwa Marga	130.00	56.00	186.00	-	186.00	
139	T3L22	Rangeli Road	70.00		70.00	70.00		
140	T3L25B, Outlet	Madhumara	96.00		96.00	96.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
141	T3L7B	Matrika Marga	75.00		75.00	75.00		
142	T3L5	Sanihat Marga	280.00		280.00	280.00		
143	T2L19X	Parichaya Marga	210.00		210.00	210.00		
144	T2L19H		75.00		75.00	75.00		
145	R181		150.00		150.00	150.00		
146	N38		150.00	15.00	165.00	165.00		
147	T3L10C	Paurakh Marga		110.00	110.00	110.00		
148	T3L10F			135.00	135.00	135.00		
149	T3L10			170.00	170.00	170.00		
150	R47 (T3L10A)	Matrika Marga		125.00	125.00	125.00		
151	R12	Kanchhadai Marga		200.00	200.00	200.00		
152	R8 (b)	Sahayogi Marga		65.00	65.00	65.00		
153	T1L7A	Piyush Marga		40.00	40.00	40.00		
154	R39	Maisthan Marga		50.00	50.00	50.00		
155	N7	Amar Marga		90.00	90.00	90.00		
156	N8	Amar Marga		120.00	120.00	120.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
157	R26	Amar Marga		140.00	140.00	140.00		
158	T3L25A	Bhakti Marga		137.50	137.50	137.50		
	Total		29,827.19	1,799.50	31,626.69	30,680.69	946.00	



3.2. 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.

3.2.1. 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.

Since the contractor has made agreement with the owner of crusher plant for the supply of required materials from the crusher, no approval for quarry and borrow sites are required till date.

3.2.2. 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.

The contractor has already provided the safe tipping sites and the excess materials are dumped as per the approved tipped sites. Spoil and construction wastes are disposed at Madhumara site similarly excess construction materials are stocked at Madhumara site and at the open space of north side of Degree College (Rani Site).

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

This section describes about the works related to maintenance and upgrading of labor camps, contractor's employees camp, contractor's site office, contractor's equipment store yards, contractor's equipment store yards, contractor's precast production yards. The camp should have the proper roofing system. Besides that, it should be spacious, should have proper circulation of the fresh air, should be hygienic, and should have proper electric lightening system & water supply system. It should be neat and clean.

Labor camps are provided at various locations as per requirement and these sites are frequently visited and monitored. The condition is found to be satisfactory. The details of the labor camp is provided in annex.



3.2.3. PROVISION AND MAINTENANCE OF TOILETS

Provision of toilets for labor 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 for pit type latrines. Sufficient water must be provided and maintained in the toilets.

Toilets have been provided at each labor camp. The contractor has been instructed to improve the toilet conditions where required.

Toilets in all the camps are found to be in the acceptable condition.

3.2.4. 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 should be fitted with crusher to control emission of dust from plant. The crusher plant is located at around 42 km north-east of Biratnagar at a place called Chisyang.

Since the contractor has made agreement with the owner of crusher plant for the supply of required materials from the crusher, no approval for quarry and borrow sites are required till date certainly minimize the dust pollution.

3.2.5. ASPHALT 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.

As the concrete quantity of the project is very minimal, there is no need of the separate batch plant for concrete mixing. However, as there are a lot of asphalt concrete works to be done in the project, a separate asphalt plant has been installed, especially for the project, at about 6 Km south of the Biratnagar DSC office at a place called Rani.

3.2.6. 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 the environmental improvement project and mainly constitutes 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-2054BS, 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 was submitted to MoUD on 14th May, 2013 and has already been approved.

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 and a standard site specific environmental monitoring checklist was used to record the present status of the project to verify if work has been done as per EMP Guidelines. A sample of environmental checklist is attached herewith as Annex.

3.3. 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 labors 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.

3.4. SAFEGUARD/ GESI COMPONENT

3.4.1. COMMUNITY AWARENESS:

Conduct regular Community Awareness Consultations within Project Areas to build awareness on Project Objectives, Activities and implementation during site observation, Monitoring and Meetings. Different site visit has been conducted during May, 2018 such as DDC Pre cast yard, Chyangbari Naala Biratnagar-16, Asphalt work at Sai Marg, Sewer Line construction work at Hanumandas Road and Asphalt Plant at Rani Site. Except of Minor, no any major conflict has been found during construction work. The visit was conducted jointly with Environment Safeguard Expert and Social Safeguard Expert. Before commissioning of any works at any stretches, we paste the information templates at certain interval and provide sufficient information to the users regarding it.

3.4.2. GRIEVANCE REDRESSES MECHANISM:

Although many grievances were received verbally, only 9 (Nine) grievances have been registered formally which have immediately been addressed and resolved. This month, some grievances for some stretches were received verbally and were addressed immediately. Refer semi - annual report for details.

3.4.3. GENDER EQUITY AND SOCIAL INCLUSION (GESI):

Activities related to GESI has been monitored and supervised in all Construction sites. During site visit female workers were found in significant minority (7 numbers) at Construction sites, thus Contractor was instructed as follow:

- i. Encourage to Local female Employment as Labor and skilled man power.
- ii. Manage separate Camp and necessary facilities for female workers to encourage of female Employment. Camps and construction sites are regularly been monitored to find the status of



working force.

3.4.4. STATUS OF SOCIAL AND ENVIRONMENTAL SAFEGUARD MEASURES

The present status to this regard has been reported as below:

During the site visit for Socio Environment monitoring by DSC Environmental and Social Safeguard Expert on date 1st, 2nd and 3rd December, 2018 following issues were found. Social Safeguard revisited the site on 29th, 30th and 31st December.

- i. Efforts are being made to control dust emission at construction site by sprinkling water. As personal safety was given prime importance, construction workers were made to use helmet, globe and jacket while on the construction site.
- ii. Besides that, special attentions were given on the placement of safety board and traffic signboards, safety tools, barricades, tapes, etc. and special care were taken to make sign boards big enough to make them visible from distant.
- iii. Taking into consideration of the fact that the involvement of the significant numbers of female as employee in ADB project is the main project objective of ADB, contractor paid especial attention to have a separate toilet and separate labor camp for female that facilitates and encourages female to get work in the construction field.
- iv. Significant improvement was found to be done in health and sanitation issues in the labor camp than in the previous monitoring visit; like, quality and quantity of drinking water was improved and condition of toilet was found to be enhanced. However, to meet the sanitation condition to predetermined level, further instructions were given by contractor to make provision for sufficient water in toilet and soap for hand-wash. Furthermore, yard in charge was suggested to have sufficient medications, bandages and other necessary first aid equipment's.

The implementation of Social and Environmental Safeguard measures during this month were found partially satisfactory.

3.4.5. STATUS OF RELOCATION OF SERVICES

Relocation of water supply pipe lines were ongoing at T3 Line21 and R181, etc. The supply has been providing temporarily as per site condition and where required. Relocation of electric poles in Rangeli road, near Tinpaini chowk in R2 & R3, R45 (Mahabir road) & R43 (Dharma path) are going on.

Table – 5: Status of Labor at Site

Labour class	Labour		Composition		Ethnic composition				
	Skilled	Unskilled	Male	Female	Janjati	Dalit	Muslim	Madhesi	Brahmin/Chhetri
Local	21	72	93	0	5	18	8	62	0
Non local	74	279	328	25	56	58	25	214	0
Indian	2	7	9	0	0	5	4	0	0
TOTAL	97	358	430	25	61	81	37	276	0



3.5. FINANCIAL PLAN

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

3.5.1. DISBURSEMENT RECORDS IN CONSTRUCTION

Table – 6: DISBURSEMENT RECORDS in CONSTRUCTION

S. No.	Description	Submission date	Covering date	Submitted Amount(NRs)	Remarks
1	IPC 01	15 th October 2017		339,105,000.00	Mobilization Advance
2	IPC 02	2 nd April 2018	2 nd November 2017 to 31 st March 2018	261,501,492.21	
3	IPC 03	1 st July 2018	1 st April 2018 to 30 th June 2018	316,582,708.58	
4	IPC 04	1 st October 2018	1 st July 2018 to 31 st September 2019	105,227,887.16	
5	IPC 05	2 nd December 2018	1 st October 2018 to 30 th November 2018	95,951,603.44	
6	IPC 06	31 st January 2019	1 st December 2018 to 31 st January 2019	264,937,394.98	
7	IPC 07	12 th April 2019	1 st February 2019 to 31 st March 2019	308,805,662.97	
8	IPC 08	9 th May 2019	1 st April 2019 to 30 th April 2019	106,210,198.68	
9	IPC 09	10 th June 2019	1 st May 2019 to 31 st May 2019	90,419,375.33	
10	IPC 10	11 th July 2019	1 st June 2019 to 30 th June 2019	67,863,056.59	
11	IPC 11	30 th September 2019	1 st July 2019 to 30 th September 2019	95,296,297.30	
12	IPC 12	3 rd November 2019	1 st October 2019 to 31 st October 2019	53,113,369.86	



S.	Description	Submission date	Covering date	Submitted	Remarks
13	IPC 13	30th November 2019	4th June 2019 to 30th June 2019	125,965,923.87	
14	IPC 14	31 st December 2019	1st December 2019 to 31st December 2019	63,509,092.84	
Total amount excluding PA & Mobilization advance till date =				1,955,384,063.81	



4. OBJECTIVES AND SCOPE OF WORKS

4.1. 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.

4.2. 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 to assist the PIU (Employer), 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.



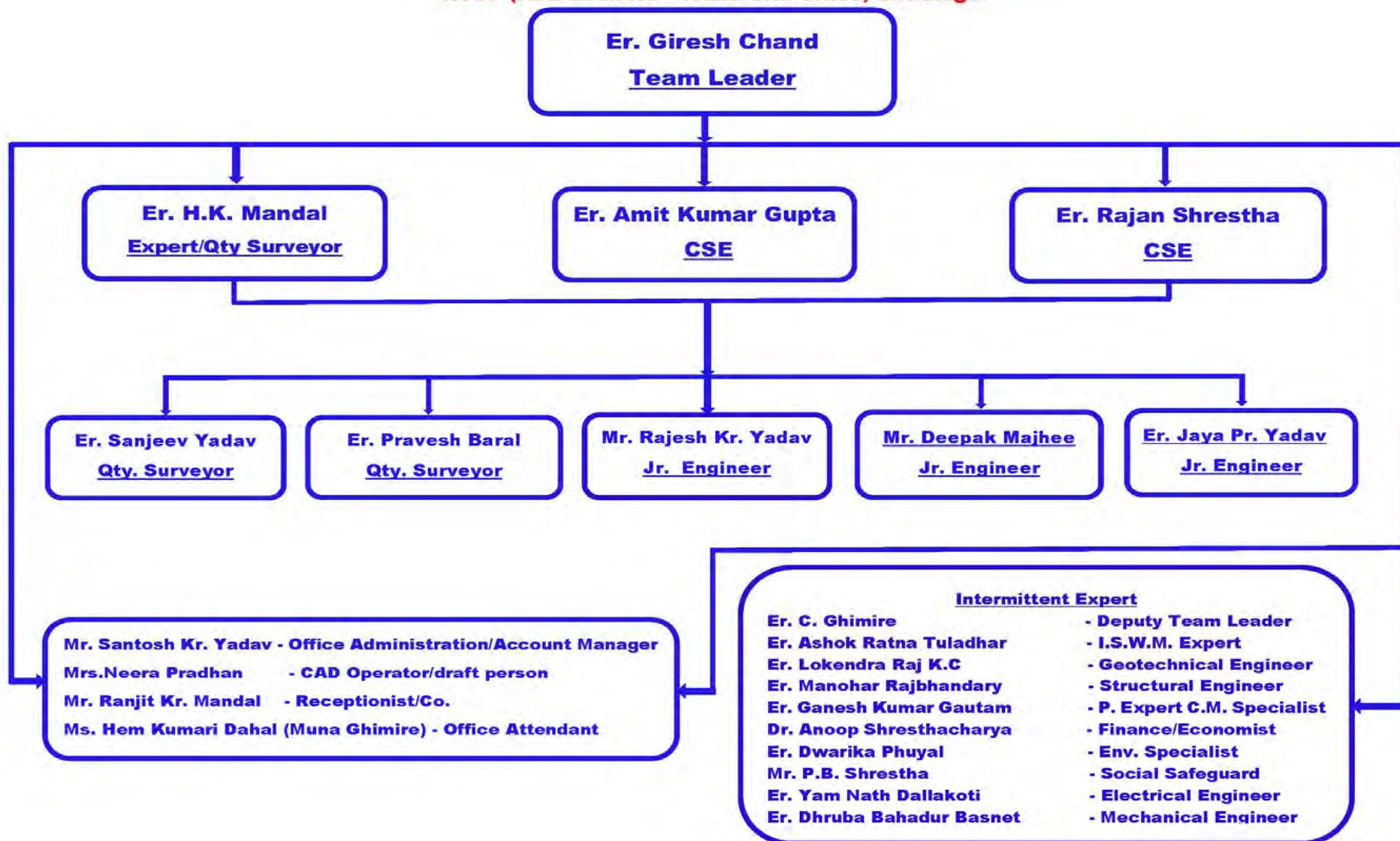
4.3. ORGANIZATION AND STAFFING

Attached



ORGANIZATION CHART

RUDP (ADB Loan No - 47252 Site Office, Biratnagar)



4.4. 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	Mr. Giresh Chand	Team Leader	6 th Sep 2017	
2	Mr. Ashok Ratna Tuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Mr. Dwarka Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Mr. Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Mr. Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
6	Mr. Amit Kumar Gupta	Construction Supervision Engineer	1 st March 2018	
7	Mr. Rajan Shrestha	CSE/Quantity Surveyor	7 th Nov 2017	Working as CSE from 1 st May 2019.
8	Mr. Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
9	Mr. Sanjeev Yadav	Qty. Surveyor	5 th Nov 2017	
10	Mr. Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
11	Mr. Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
12	Mr. Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
13	Mr. Pravesh Baral	Junior Engineer-2	10 th Dec 2017	
14	Mr. J.P Yadav	Junior Engineer-3	1 st March 2018	
15	Mr. Deepak Majhi	Junior Engineer-4	1 st March 2018	
16	Mrs. Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
17	Mr. Yubraj Poudel	Driver	10th Feb-2019	

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. Assisting PIU

5. PROGRESS OF SUB – PROJECT COMPONENTS

5.1. CONSTRUCTION MATERIALS.

Before using any construction material in the project, as per clause 7.3, engineer gave prior notice to contractor for joint inspection of the construction materials and all materials have been jointly checked and verified. Team leader issued letter to contractor to do the lab test of the construction materials from the authorized organizations and lab reports of the tested materials have been submitted by contractor. Engineer has emphasized on the 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 three production yards at Koshi project, Madhumara and Judi contractor camp for pre-cast items like Kerb stone, drain cover slab, sewer precast elements, etc. but as more than 75% work done so that the production yard at Koshi project has been closed and production are 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 has been tested in presence of consultant TL, PIU and contractor representative.

5.2. PROGRESS ACHIEVED TILL DATE

Month	Target This Month		Achievement This Month		Leading		Lagging		Remarks
	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	
July-18	0.15%	25.17%	0.78%	25.18%	0.63%	0.01%			Leading
August-18	0.15%	25.32%	2.32%	27.50%	2.17%	2.18%			Leading
September-18	5.71%	31.03%	1.22%	28.72%				-2.31%	Lagging
October-18	7.72%	38.75%	2.30%	31.03%				-7.72%	Lagging
November-18	7.72%	46.47%	5.20%	36.22%				-10.25%	Lagging
December-18	7.95%	54.41%	3.40%	39.62%				-14.79%	Lagging
January-19	7.96%	62.37%	5.65%	45.27%				-17.10%	Lagging
February-19	7.96%	70.33%	5.11%	50.38%				-19.95%	Lagging
February-19 (after Revision)	5.33%	50.03%	5.11%	50.38%		0.35%			Leading
March -19	7.75%	57.77%	7.84%	58.21%		0.44%			Leading
April-19	6.82%	64.59%	4.53%	62.74%				-1.85%	Lagging
May-19	6.49%	71.08%	4.54%	67.28%				-3.80%	Lagging
June-19	3.95%	75.03%	2.05%	69.33%				-5.70%	Lagging



Month	Target This Month		Achievement This Month		Leading		Lagging		Remarks
	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	
July-19	3.90%	78.93%	2.19%	71.52%				-7.41%	Lagging
August-19	4.97%	83.90%	2.01%	73.53%				-10.37%	Lagging
September-19	7.45%	91.35%	4.97%	78.50%	NA	NA	-2.48%	-12.85%	Lagging
October-19	8.56%	99.91%	1.14%	79.64%	NA	NA	-7.42%	-20.27%	Lagging
November-19	0.09%	100.00%	0.33%	79.97%	0.24%	NA	NA	-20.03%	Lagging
December-2019 (after Revision-2)	5.00%	72.98%	5.14%	73.12%	0.14%	0.14%	NA	NA	Leading

5.3. KEYEVENTS

The consultant has noted the following key dates for this month.

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
1		Frequent visit of sites by the representatives of the employer.	

6. DETAILS OF PRE CAST ACTIVITIES.

Table 9: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS till date,

Physical Progress till date							
S.N.	Description	Unit	Progress			Total to Date (RM.)	Remarks
			BoQ	Up to Previous month (RM.)	This Month (RM.)		
1	Precast Slab	No		81,871.00		81,871.00	Under progress
2	Kerb Stone	Rm	147,729.68	93,293.30	3,000.00	96,293.30	65.18%

Table 10: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF RCC Hume Pipe at Itahari till date,

Physical Progress till date							
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	336.00	336.00	-	336.00	
2	RCC Pipe	450	681.00	681.00	-	681.00	
3	RCC Pipe	500	842.00	842.00	-	842.00	
4	RCC Pipe	600	382.00	382.00	-	382.00	
	Total						

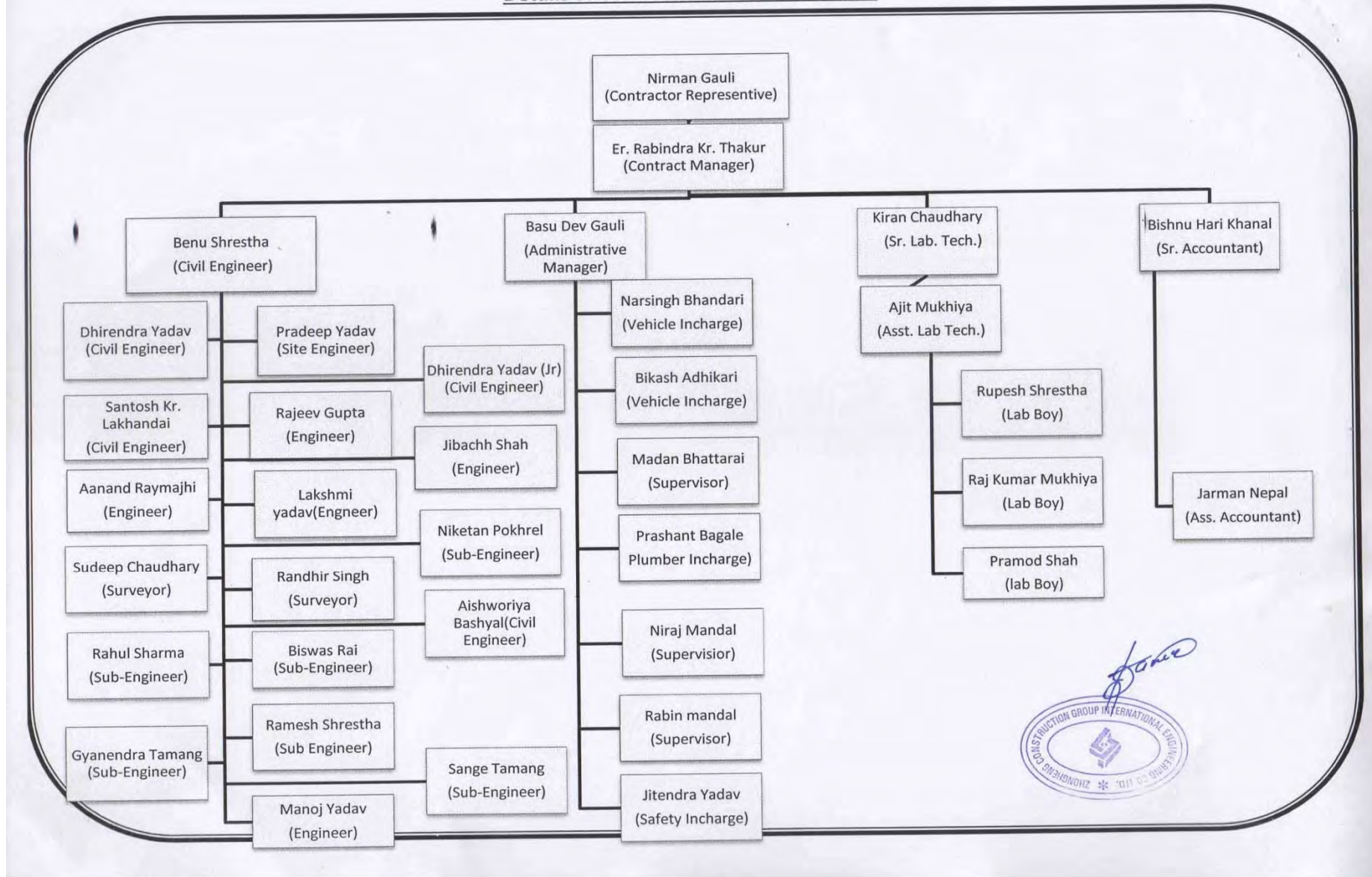
Table 11: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF HDPE Pipe till date.

<i>Physical Progress till date</i>							
<i>S.N.</i>	<i>Description</i>	<i>Diameter (mm)</i>	<i>Progress</i>			<i>Total to Date (RM.)</i>	<i>Remarks</i>
			<i>BoQ (RM)</i>	<i>Up to Previous month (RM.)</i>	<i>This Month (RM.)</i>		
1	HDPE Pipe	110.00	1,987.20	4,487.20	-	4,487.20	Under process
2	HDPE Pipe	200.00	16,656.00	16,500.00	-	16,500.00	
3	HDPE Pipe	250.00	115.00	450.00	-	450.00	
Total							

Table 12: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF UPVC Pipe till date.

<i>Physical Progress till date</i>							
<i>S.N.</i>	<i>Description</i>	<i>Diameter (mm)</i>	<i>Progress</i>			<i>Total to Date (RM.)</i>	<i>Remarks</i>
			<i>BoQ (RM)</i>	<i>Up to Previous month (RM)</i>	<i>This Month (Rm.)</i>		
1	UPVC Pipe	160.00	5,050.00	5,050.00		5,050.00	
2	UPVC Pipe	110.00	5,050.00	5,050.00		5,050.00	

Details of Contractor's Site Personnel's



7. CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS

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	-	
4	Road Engineer-(1no.)-12/8	1	1	
5	Electromechanical Engineer-(1no)- 10/5	1	-	
6	Safety Engineer	-	1	
7	Site Engineer	-	8	
8	Sub- Engineer	-	7	
9	Accountant	-	3	
10	Lab Technician	-	6	
11	Store Keeper	-	1	
12	Vehicle In charge	-	2	
13	Skilled Labors		97	
14	Unskilled Labors		358	

8. CONTRACTOR'S EQUIPMENT

Table 14: CONTRACTOR'S EQUIPMENT

S.No.	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	1	Backhoe loader-9 nos.
2	Crane (10 ton capacity)	3	-	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	4	Among 4nos., 2ton rollers-2nos.
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	3	
9	Track Dozer (120 to 180 HP)	1	-	
10	Bitumen distributor (4 to 6 Kilo Litres)	1	1	
11	Water browser (minimum 5000 Litres)	3	9	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
	Air compressor	2	2	
14	Tipping Trucks	5	2	
15	Service vehicle	15	4	
16	Survey equipment (Total station with accessories)	2	1	



S.No.	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
17	Theodolite	1	-	
18	Levelling	2	27	
19	Mobile Generator 15-20 KVA	5	10	
20	Mixer Machine	3	5	
21	Concrete Batching Plant	1	-	
22	Concrete pump	1	-	
23	Drain cleaner/ Nala cleaner	2	-	
24	Broomer	-	1	
25	Motor Bike	-	11	
26	Plate Compactor	-	5	
27	Water Pump	-	14	

9. WORK PLAN FOR THE NEXT MONTH

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

- Detail Surveying works at various Road sections.
- Road works
- Precast elements production works at contractor's yard.
- Road Side drain works.
- Laying of Kerb Stone, cover slab and interlocking tiles.
- Placement of Sewer inlet and House Connection works.
- Relocation of electric poles and water supply works, etc.

ANNEX-1: Photographs of December, 2019





Road diversion at R2



Brooming work before application of Prime coat at R2



Brick Masonry at N7



R2 Lane – Base laying



RCC Drain at R4 near N2 Junction



Brick Masonry drain at R2

ANNEX-2: Minutes of Meeting December, 2019



Building Design Authority (P) Ltd

in Joint Venture with

B.N.Consultancy Pvt. Ltd and Plus Engineers & architects (P) Ltd, Kathmandu, Nepal

REGIONAL URBAN DEVELOPMENT PROJECT (RUDP), ADB Loan No: 47252

Biratnagar Metropolitan city, Biratnagar

MINUTES OF MEETING NO. – 28

Contract: RUDP/ICB/BRT- 02

Date: 24 December, 2019

Time: 5:00PM

Venue: TL Office, Biratnagar

Attendance

Employer:

1. Mr. EKadevAdhikari, CAO, BMC
2. Mr. Bharat Neupane, Project Manager
3. Mr. Prakash Narayan Chaudhary, DPM
4. Mr. Ghanshyam Kafley, Project Engineer
5. Mr. Anil Singh, Project Engineer
6. Mr. Mister KC, Account Officer

Contractor:

1. Mr. Nirman Gauli, Contractor Representative
2. Mr. Ravindra Kumar Thakur, Contract Manager

Consultant:

1. Mr. Giresh Chand, Team Leader
2. Mr. H K Mandal, Expert/Quantity Surveyor
3. Mr. Rajan Shrestha, CSE

Meeting was chaired by CAO, Mr. Ekadev Adhikari and welcomed by TL, Mr. Giresh Chand. Following matters were discussed and decided:

S.N.	Minutes	Action by
1.	TL, Mr. Chand briefed the present status of the project under RUDP: 1) Road Rehabilitation (Asphalt)- 64.46% 2) Sewer Line – 99.52% 3) Storm Water Drain- 100% 4) Road Side Drain- 87.25% The overall progress till date is 73% wrt Revised work program-02	Consultant/ Contractor
2.	TL emphasized his dissatisfaction on the current work progress as Revised Date of Completion (After EoT-1) is 18 May 2020). None of single road has been completed as per approved design and drawing (i.e., discrepancies in top level of drain, slab and kerbstone, weep holes, backfilling, interlocking, water supply pipes etc.)	Employer/ Consultant/ Contractor

Address: Bargachhi Pipalchowk-05, Biratnagar Email: rudpbdbart@gmail.com

Building Design Authority (P) Ltd

in Joint Venture with

B.N.Consultancy Pvt. Ltd and Plus-Engineers & architects (P) Ltd, Kathmandu, Nepal

REGIONAL URBAN DEVELOPMENT PROJECT (RUDP), ADB Loan No: 47252

Biratnagar Metropolitan city, Biratnagar



	CAO and PM together added to complete remaining works (defects/Outstanding) in all roads as early as possible. The contractor accepted and admitted to accelerate the work for same.	
3.	The contractor informed that they are not in the stage to work further (for Excess quantity not approved) until financial assurance would not be provided. CAO as well as PM instructed to execute the works as per 14.88% VO which has already been approved by BMC Board. The Employer further instructed to submit VO as soon as possible for further action. TL agreed to resubmit VO-2 by 29 December 2019 wrt 14.88% with detail supporting documents.	Employer/ Consultant/ Contractor
4	The Contractor, Mr. Nirman Gauli asked for withheld amount of laying New Water Supply in IPC-11. PM advised to review the IPC-11(PS, laying of New Water supply pipe) and resubmit in coming IPC as per approved VO-01. TL instructed to accelerate the work of New water supply work so that project can be completed in stipulated time.	Employer/ Consultant/ Contractor
5	PM, Mr Bharat neupane requested for the New Design of Himalaya Road (R70 from College Road to Mahendra Chowk) as No Vehicle Zone. TL advised to coordinate with public and requested for concrete decision for the change so that the consultant can review the design as said. PM agreed for the same.	Employer/ Consultant/ Contractor
6.	CAO, Mr EKadev Adhikari advised to complete all the works in stipulated time with quality. The Contractor agreed on the same.	Employer/ Consultant/ Contractor

[Handwritten signatures and initials are present below the table, including a large blue checkmark and several names.]

Address: Bargachhi Pipalchowk-05, Biratnagar. Email: rudpbdbart@gmail.com



ANNEX-3: Laboratory Test Results of December, 2019
ATTACHED



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

Location:-R-7,(T3L10f)





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

Location:-T3L39-A















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

Summary Sheet of Monthly Test Report

[illegible]

Spots

Contractor

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

Consultant

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
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

.....
Verified By

Expert Qty Surveyor/CSE

Expert Qty surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Gireesh Chand



Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Field Density Test

Month	December
Year	2019
Type of Material	Sub-Base

<p align="center">Contractor</p>  <p align="center">ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>	<p align="center">Consultant</p> <p align="center">BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>
<p><i>[Signature]</i></p> <p>.....</p> <p>Checked By Engineer Dhirendra Yadav</p>	<p><i>[Signature]</i></p> <p>.....</p> <p>Submitted By Contract Manager Rabindra Kr. Thakur</p>
<p><i>[Signature]</i></p> <p>.....</p> <p>Verified By Expert Qty Surveyor/CSE H.k. Mandal/Rajan Shrestha</p>	 <p><i>[Signature]</i></p> <p>.....</p> <p>Approved By Team Leader Giresh Chand</p>





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

Location:-R-15






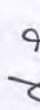





Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Monthly Test Report

Location :-R-83

[illegible]

Contractor	Consultant
<p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> 	<p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>
<p>Checked By  Engineer Dhirendra Yadav</p>	<p>Submitted By  Contract Manager Rabindra Kr. Thakur</p>
	<p>Verified By  Expert Qty Surveyor/CSE H.K. Mandal/Rajen Shrestha</p>
	<p>Approved By  Team Leader Gireesh Chand</p>






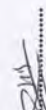



Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location :-T3L10C

[illegible]

Contractor	Consultant
<p>  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD </p> <p>  Checked By Engineer Dhirendra Yadav </p>	<p> BUILDING DESIGN AUTHORITY (P) LTD. A JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL </p> <p>   Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha </p> <p>  Approved By Team Leader Gireesh Chand </p>














Biratnagar Metropolitan City

Contract No: RU DP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-R-83

[illegible]

Contractor	Consultant
<p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> 	<p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>
<p>Submitted By Contract Manager Rabinendra K. Thakur</p> 	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> 
<p>Checked By Engineer Dhirendra Yadav</p> 	<p>Approved By Team Leader Gireesh Chandra</p> 





REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report

Location:-T3L39A

[illegible]

Spec

Consultant

Contractor

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

— INTERNATIONAL JOURNAL OF ENGINEERING

CTION GROUP INTERNATIONAL



Checked By
Engineer
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha



Approved By
Team Leader
Gireesh Chand



[illegible]

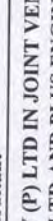
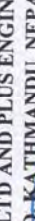




Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Location:-N-2



Summary Sheet of Monthly Test Report

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD</p> 	<p>Consultant</p> <p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD-KATHMANDU, NEPAL</p>
<p>Submitted By Contract Manager Rabindra Kr. Thakur</p> 	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> 
<p>Checked By Engineer Dhirendra Yadav</p> 	<p>Approved By Team Leader Girish Chandra</p>  



Summary Sheet of Field Density Test

Location:-N-3



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No: RUDP/ICB/BRT-02
Summary Sheet of Monthly Test Report

Location:-R-9,(R-37 to R-30)

[illegible]



Summary Sheet of Monthly Test Report

Spec. I	CONTRACTOR
---------	------------



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

Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Gireesh Chand



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

Summary Sheet of Field Density Test

Location:-R-15

[illegible]

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

		Month		December																	
		Year		2019																	
		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	PP%	L.A.A. %	Fl and El %	A.I.V. %	CR %	CHR %	Remarks
					40	31.5	20	10	4.75	2.36	0.6	0.075									
1	RUDP-B-01	R-44,(0+060)	Chisang Khola	6-Dec-19	100	88.60	68.04	50.41	38.48	27.66	15.05	6.51	2.242	5.80	NP	30.70	20.99/19.97	21.47	82.22	82.80	
1	RUDP-B-02	R-44,(0+140)	Chisang Khola	7-Dec-19	100	88.32	65.41	48.47	37.39	27.14	17.87	7.22		NP	36.96	21.89/19.74	21.77	83.45			
<p>Spec. Limit : 100 85-100 62-92 40-70 26-55 21-53 12-28 2-10</p>																					
<p>Contractor: ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD</p>																					
<p>Consultant: BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>																					
<p>Submitted By: <i>[Signature]</i> Contract Manager Expert Qty Surveyor/CSE Ravindra K. Thakur H.K. Mandal/Rajan Shrestha</p>																					
<p>Checked By: <i>[Signature]</i> Engineer Dhirendra Yadav</p>																					
<p>Approved By: <i>[Signature]</i> Team Leader Gireesh Chand</p>																					



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

Summary Sheet of Field Density Test

Location:-R-44

[illegible]

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-R-30

[illegible]

Summary Sheet of Field Density Test

Location:-R-30



Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-T3L21A

[illegible]

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.,LTD

Consultant
 HORITY (P) LTD
 Y PVT. LTD AND
 6 (P) LTD, KATH

**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
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Giresch Chand



Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-T3L10C

[illegible]

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.,LTD

Consultant

**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
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha



Approved By
Team Leader
Gireesh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-T3L24E

[illegible]

Consultant

Contractor	
Spec	

Contractor

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
Dhirenda Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Export Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Gireesh Chand

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

Location:-T2L24E






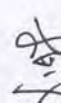


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Contractor	Consultant
<p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> 	<p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL.</p>
<p>Checked By Engineer Dhirendra yadav</p> 	<p>Submitted By Contract Manager Rabindra Kr. Thakur</p> 
	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/rajan Shrestha</p> 
	<p>Approved By Team Leader Girish Chand</p> 
	

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

Summary Sheet of Field Density Test

Location:-Rani Prajatantra Marg -B



Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-R-4

[illegible]

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD.

Consultant

**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
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha





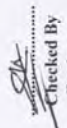

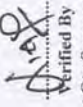

Approved By
Team Leader
Gireesh Chand

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

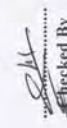



Summary Sheet of Field Density Test

Location:-R-4






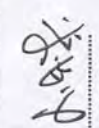

REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for Priming work											
SUMMARY FOR THE MONTH OF DECEMBER 2019											
Type of Bitumen: 80/100 P.G											
Cutter Percentage: MC 70: MC 30											
SN NO	Location	Date of Priming	Station From	Station to	Side of Priming	Area of Priming (m ²)	Intersection Area m ²	Total Area M ²	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m ²	Application Rate Bt Tray Test Ltr/m ²
1	T3L13C	6-Dec-19	0+000	0+102	Both side	316.20	0.00	316.20	325	1.03	1.03
2	R-74	6-Dec-19	0+000	0+095	Both Side	361.00	0.00	361.00	375	1.04	1.04
3	N-10	6-Dec-19	0+000	0+196	Both Side	980.00	0.00	980.00	1050	1.07	1.04
4	R-3	7-Dec-19	6+050	6+300	Both Side	2387.50	0.00	2387.50	2550	1.07	1.06
5	R-2	08-Dec-19	1+360	1+460	Both Side	955.00	0.00	955.00	1000	1.05	1.07
6	R-3	09-Dec-19	5+300	6+545	Both Side	2376.50	0.00	2376.50	2550	1.07	1.05
7	R-3	11-Dec-19	6+545	6+630	Both Side	786.25	0.00	786.25	850	1.08	1.06
8	T3L11E	11-Dec-19	0+000	0+053	Both Side	164.30	0.00	164.30	175	1.07	1.03
9	T3L11E	12-Dec-19	0+053	0+126	Both Side	233.60	0.00	233.60	250	1.07	1.04
Required specification for Prime coat 1.0 Lit/M ² ± 5% Specific Gravity of Bitumen 1.023											
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 Dhirendra Yalav						Submitted By  Contract Manager Rabinendra K. Thakur					
						Verified By  Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha					
						Approved By  Team Leader Giresha Chand					





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 DECEMBER 2019											
Type of Bitumen: 80/100 P.G Cutter Percentage: MC 70:MC 30											
SN NO	Location	Date of Priming	Station From	Station to	Side of Priming	Area of Priming (m ²)	Intersection Area m ²	Total Area M ²	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m ²	Application Rate Bt Tray Test Ltr/m ²
10	T2L19F	12-Dec-19	0+000	0+117	Both side	491.40	0.00	491.40	525	1.07	1.04
11	R-44	13-Dec-19	0+000	0+150	Both Side	1365.00	0.00	1365.00	1450	1.06	1.03
12	Rani Pratantra marg, B	15-Dec-19	0+000	0+180	Both Side	666.00	0.00	666.00	700	1.05	1.05
13	R-9	16-Dec-19	0+000	0+130	Both Side	650.00	0.00	650.00	700	1.08	1.04
14	N-3	16-Dec-19	0+000	0+122	Both Side	527.04	0.00	527.04	550	1.04	1.04
15	R-9	17-Dec-19	0+130	0+220	Both Side	450.00	0.00	450.00	475	1.06	1.05
16	R-30	17-Dec-19	0+000	0+232	Both Side	904.80	0.00	904.80	950	1.05	1.04
17	R-5	28-Dec-19	0+000	0+180	Both Side	1215.00	0.00	1215.00	1300	1.07	1.05
Required specification for Prime coat 1.0 Lit/M ² ± 5% Specific Gravity of Bitumen 1.023											
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 Dharendra Yadav						 Submitted By Contract Manager Rabindra Kr. Thakur					
						 Approved By Team Leader Gireesh Chand					




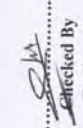



[illegible]

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 DECEMBER 2019											
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 Bt Tray Test Lit/m2
1	R-44	8-Dec-19	0+135	0+320	BHS	1711.25	0	1711.25	1000	0.58	0.52
2	R-74	9-Dec-19	0+000	0+095	BHS	361	0	361	200	0.55	0.51
3	R-2	10-Dec-19	1+360	1+460	BHS	945	0	945.00	550	0.58	0.52
4	R-3	12-Dec-19	6+050	6+400	BHS	3437	0	3437.00	2000	0.58	0.53
5	R-3	13-Dec-19	6+400	6+630	BHS	2185	0	2185.00	1300	0.59	0.56
6	T3L11E	27-Dec-19	0+000	0+126	BHS	385.56	0	385.56	200	0.52	0.49
7	T3L19F	27-Dec-19	0+000	0+120	BHS	504	0	504.00	300	0.60	0.53
Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2											
Specific Gravity of Bitumen 1.023											
Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
Checked By  Dhirendra Yadav						Submitted By  Rubindra Kr. Thakur					
Verified By  H.K. Mandal/Rajun Shrestha						Approved By  Gireesh Chand					



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 DECEMBER 2019									
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	Page no 1 of 2
8	R-30	28-Dec-19	0+000	0+090	BHS	360	0	360.00	Application Rate By Dip Lit/m2 0.56
9	R-9	28-Dec-19	0+000	0+220	BHS	1045	0	1045	Application Rate By Dip Lit/m2 0.57
10	R-30	29-Dec-19	0+090	0+232	BHS	525.4	0	525.40	Application Rate By Dip Lit/m2 0.57
11	R-44	29-Dec-19	0+000	0+150	BHS	1365	0	1365.00	Application Rate By Dip Lit/m2 0.59
12	R-5	30-Dec-19	0+000	0+180	BHS	1170	0	1170.00	Application Rate By Dip Lit/m2 0.56
13	R-43	30-Dec-19	0+000	0+328	BHS	2197.6	0	2197.60	Application Rate By Dip Lit/m2 0.55
Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2									
Specific Gravity of Bitumen 1.023									
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 PVT. LTD, KATHMANDU, NEPAL 				
Checked By Engineer Dharendra Yadav					Submitted By Contract Manager Rabindra Kr. Thakur				
					Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha				
					Approved By Team Leader Girish Choud				



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 DECEMBER 2019										
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	Application Rate By Dip Lit/m2	Application Rate Bt Tray Test Lit/m2
14	R-7	30-Dec-19	0+000	0+065	BHS	633.75	0	633.75	0.55	0.52
15	N-3	30-Dec-19	0+000	0+122	BHS	801.54	0	801.54	0.56	0.55
16	Rani P.M.-B	30-Dec-19	0+000	0+180	BHS	666	0	666.00	0.60	0.53
								Total	10500	
Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2										
Specific Gravity of Bitumen 1.023										
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 Dhirendra Yadav						Verified By  Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha				
Submitted By  Contract Manager Rabinendra K. Thakur						Approved By  Team Leader Gireesh Chand				

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Test Result by MARSHALL METHOD (AASHTO T 245-78)

SUMMARY FOR THE MONTH OF DECEMBER 2019

SUMMARY FOR THE MONTH OF DECEMBER 2019																		P.g No. 1	
S. No.	LAB REF. NO	Date of Laying	Location of Work ch:	Mix Agg Gradation										Bitumen Content From Extraction Test %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm
				% Passing Sieve Sizes mm															
				20	16	9.5	4.75	2.36	0.6	0.075									
1	156	8/12/2019	R-44,(0+135 to 0+320)	100	100	78.68	55.87	35.07	17.57	6.85	5.74	2.361	3.07	16.32	11587	2.42			
2	157	9/12/2019	R-74,(0+000 to 0+095)	100	100	78.24	56.79	36.94	18.79	7.01	5.80	2.357	3.24	16.60	9683	2.37			
3	158	10/12/2019	R-2,(1+360 to 1+460)	100	100	78.40	55.63	34.55	16.76	6.60	5.57	2.367	3.01	15.90	10126	2.52			
4	159	10/12/2019	R-3,(6+050 to 6+400)	100	100	78.46	55.53	34.73	17.01	6.61	5.77	2.361	3.07	16.38	10790	2.60			
5	160	13/12/2019	R-3,(6+400 to 6+630)	100	100	78.03	54.88	33.76	16.35	6.26	5.80	2.357	3.95	17.31	10923	2.30			
6	161	27/12/2019	T3L11E,(0+000 to 0+126)	100	100	77.22	56.89	35.49	17.06	6.89	5.60	2.363	3.21	16.15	11520	2.50			
7	162	27/12/2019	T3L19F,(0+000 to 0+120)	100	100	78.89	56.08	35.28	17.35	6.85	5.74	2.361	3.07	16.33	11487	2.45			
8	163	28/12/2019	R-30,(0+000 to 0+090)	100	100	78.26	56.84	36.80	18.56	7.00	5.70	2.359	3.54	16.69	11454	2.60			
9	164	28/12/2019	R-9,(0+000 to 0+220)	100	100	78.48	56.74	36.92	18.47	7.02	5.68	2.366	3.61	16.74	11399	2.43			
10	165	29/12/2019	R-30,(0+090 to 0+232)	100	100	78.26	55.57	34.37	17.08	6.58	5.69	2.363	3.75	16.90	11421	2.52			
11	166	29/12/2019	R-44,(0+000 to 0+150)	100	100	78.37	55.90	34.91	17.21	6.82	5.67	2.360	3.80	16.88	11244	2.27			
12	167	30/12/2019	R-5,(0+000 to 0+180)	100	100	78.66	56.47	35.34	17.39	6.77	5.82	2.361	3.75	17.18	11155	2.35			
13	168	30/12/2019	R-43,(0+000 to 328)	100	100	78.46	55.43	34.63	16.91	6.61	5.77	2.361	3.03	16.35	11166	2.47			
14	169	30/12/2019	R-7,(0+000 to 0+065)	100	100	77.92	55.52	34.51	17.21	6.27	5.79	2.364	3.30	16.68	11321	2.58			
15	170	30/12/2019	N-3,(0+000 to 0+122)	100	100	78.89	55.98	35.71	16.41	6.01	5.74	2.369	3.48	16.77	11686	2.30			
16	171	30/12/2019	Rani P.M.-B,(0+000 to 0+180)	100	100	79.01	56.22	35.86	16.46	6.18	5.67	2.364	3.70	16.80	11587	2.48			
Specifications				100	100-100	70-82	54-59	33-37	16-21	6 to 9	5.703	Min 2.358	3-8%	≥ 15	≥ 8500	2-3			
Job Mix Tolerances from RUDP Specification Table 2.4-10				±5%	Nil	±5%	±3%	±2%	±1%	Nil	±0.3%								
REMARKS:																			
Job Mix Tolerances from RUDP Specification Table 2.4-10																			
Contractor																			
Consultant																			
For (25-51)mm Thickness W/C Course																			
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD																			
BUILDING DESIGN AUTHORITY (P) LTD IN ASSOCIATION WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS PVT. LTD, KATHMANDU, NEPAL																			
Submitted By Contract Manager Rabinendra K. Thakur																			
Verified By Expert City Surveyor/CSE H.K. Mandal																			
Checked By Engineer Dhirendra yadav																			
Approved By Team Leader Girish Chandra																			



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/CB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.

S.No.	Lab. Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight					Type of Material		Month Year		Remarks
					37.5	20	14	10	5	Lo.A.A. %	Fl and El %	December 2019	20 mm Agg	
1	RUDP-CA-469	2-Dec-19	T3L25A	Chising Khola	100.00	94.03	46.72	4.28	2.38	29.76	18.64/15.01			
2	RUDP-CA-470	2-Dec-19	T3L10A	Chising Khola	100.00	96.75	41.55	3.36	1.67	23.00	21.02/23.02			19.12
3	RUDP-CA-471	3-Dec-19	R-4	Chising Khola	100.00	89.70	37.43	4.78	1.87	28.10	19.21/17.60			21.25
4	RUDP-CA-472	4-Dec-19	R-12	Chising Khola	100.00	88.65	42.72	6.27	3.27	28.78	17.53/16.71			21.81
5	RUDP-CA-473	5-Dec-19	R-12	Chising Khola	100.00	89.03	40.20	6.19	3.25	27.00	17.16/16.00			21.13
6	RUDP-CA-474	6-Dec-19	R-3	Chising Khola	100.00	89.45	46.20	5.78	3.30	25.10	18.71/17.59			20.47
7	RUDP-CA-475	7-Dec-19	Koshi-yard	Chising Khola	100.00	87.28	39.76	6.16	3.55	28.40	18.75/17.62			21.15
8	RUDP-CA-476	8-Dec-19	N-10	Chising Khola	100.00	88.47	43.05	6.30	3.63	23.10	18.06/16.94			22.27
9	RUDP-CA-477	9-Dec-19	R-26	Chising Khola	100.00	89.05	41.47	5.34	2.39	26.30	18.62/16.93			20.91
10	RUDP-CA-478	10-Dec-19	R-46	Chising Khola	100.00	89.45	45.53	4.92	2.18	28.60	21.35/17.24			21.00
11	RUDP-CA-479	11-Dec-19	R-44	Chising Khola	100.00	88.64	43.69	4.02	2.01	26.10	19.02/18.70			20.77
12	RUDP-CA-480	12-Dec-19	N-3	Chising Khola	100.00	94.21	44.45	16.12	2.31	26.90	21.06/19.22			21.63
13	RUDP-CA-481	13-Dec-19	N-2	Chising Khola	100.00	94.43	59.88	17.06	1.69	28.80	18.45/16.27			20.22
14	RUDP-CA-482	14-Dec-19	R-9	Chising Khola	100.00	94.68	63.51	9.22	1.38	27.50	18.52/17.63			22.11
15	RUDP-CA-483	15-Dec-19	R-39	Chising Khola	100.00	97.57	57.13	13.68	2.43	25.04	17.69/18.66			22.94
16	RUDP-CA-484	16-Dec-19	R-5	Chising Khola	100.00	96.44	39.68	5.65	1.30	28.20	20.08/15.79			21.80
17	RUDP-CA-485	16-Dec-19	T2L25D	Chising Khola	100.00	95.58	34.27	4.92	1.91	26.98	17.59/13.10			20.47
18	RUDP-CA-486	17-Dec-19	N-7	Chising Khola	100.00	96.19	31.00	5.15	2.97	29.76	18.74/17.48			19.03
19	RUDP-CA-487	19-Dec-19	Koshi-yard	Chising Khola	100.00	96.05	29.37	3.67	1.79	27.34	20.16/19.95			18.20
														20.82

Spec. Limit :

100

85-100

0-70

0-25

0-5

<35

<25

<25

Consultant

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

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO., LTD

Checked By
Engineer
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra K. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Gireesh Chaud



REGIONAL URBAN DEVELOPMENT PROJECT
Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Monthly Test Report of 20mm Agg.

S.n.	Lab. Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight					Type of Material		Remarks					
					37.5	20	14	10	5	L.A.A. %	Fl and El %						
													20 mm Agg				
19	RUDP-CA-488	20-Dec-19	T3L24B	Chising Khola	100.00	96.81	28.22	2.97	1.11	28.24	17.64/17.17	17.52					
20	RUDP-CA-489	21-Dec-19	T3L10A	Chising Khola	100.00	95.61	30.22	3.36	1.41	24.24	20.07/15.86	21.24					
21	RUDP-CA-490	22-Dec-19	R-83	Chising Khola	100.00	96.39	30.10	3.45	1.16	26.08	19.80/19.60	21.01					
22	RUDP-CA-491	23-Dec-19	T3L7A	Chising Khola	100.00	93.40	41.91	6.10	1.76	28.02	16.80/14.61	17.60					
23	RUDP-CA-492	24-Dec-19	T3L7B	Chising Khola	100.00	96.23	30.24	6.18	1.84	26.96	17.91/17.68	19.00					
24	RUDP-CA-493	25-Dec-19	R-2	Chising Khola	100.00	94.61	33.27	6.52	1.70	29.16	18.45/17.98	16.02					
25	RUDP-CA-494	26-Dec-19	R-2	Chising Khola	100.00	97.33	50.39	15.66	1.63	24.92	19.25/18.04	20.20					
26	RUDP-CA-495	27-Dec-19	N-3	Chising Khola	100.00	94.43	59.88	17.06	1.69	28.80	18.45/16.27	22.11					
27	RUDP-CA-496	27-Dec-19	R-5	Chising Khola	100.00	95.44	43.12	15.07	2.31	24.70	20.26/19.36	21.52					
					Spec. Limit :					100	85-100	0-70	0-25	0-5	<35	<25	<25

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

Checked By
Engineer
Dhirendra Yadav

Consultant

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

Submitted By
Contract Manager
Rabindra K. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Giresch Chand



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of Concrete Sand

S.n.	Lab Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Concrete Sand	
					10	5.0	2.36	1.18	0.600	0.300	0.150	Clay Content%	Remarks
1	RUDP-CS-547	2-Dec-19	Koshi-yard	Chising Khola	100.00	95.31	81.36	53.71	17.11	8.43	3.95	1.57	
2	RUDP-CS-548	3-Dec-19	-R-2	Chising Khola	100.00	92.77	74.80	52.82	29.86	9.89	4.15	1.62	
3	RUDP-CS-549	4-Dec-19	T3L7B	Chising Khola	100.00	92.68	75.54	54.73	32.88	11.75	4.80	1.40	
4	RUDP-CS-550	5-Dec-19	T3L25A	Chising Khola	100.00	95.01	77.47	55.51	31.99	11.45	4.71	1.54	
5	RUDP-CS-551	6-Dec-19	T3L10A	Chising Khola	100.00	94.73	77.28	54.66	31.94	11.58	5.52	1.09	
6	RUDP-CS-552	7-Dec-19	R-4	Chising Khola	100.00	94.88	88.01	62.98	37.51	15.68	6.00	1.27	
7	RUDP-CS-553	8-Dec-19	R-12	Chising Khola	100.00	95.02	86.91	60.78	35.50	13.81	5.71	0.98	
8	RUDP-CS-554	9-Dec-19	R-3	Chising Khola	100.00	94.85	83.06	53.20	33.93	12.93	5.33	1.01	
9	RUDP-CS-555	10-Dec-19	R-5	Chising Khola	100.00	94.70	84.44	57.69	37.59	15.50	5.65	1.27	
10	RUDP-CS-556	10-Dec-19	N-10	Chising Khola	100.00	94.33	83.81	55.35	36.59	15.78	5.79	1.32	
11	RUDP-CS-557	11-Dec-19	R-26	Chising Khola	100.00	94.75	69.92	60.36	29.99	18.84	7.50	1.70	
12	RUDP-CS-558	12-Dec-19	R-46	Chising Khola	100.00	91.04	69.01	56.72	37.84	25.11	7.46	1.79	
13	RUDP-CS-559	13-Dec-19	R-44	Chising Khola	100.00	93.53	81.53	67.41	38.00	21.41	9.41	1.13	
14	RUDP-CS-560	14-Dec-19	N-2	Chising Khola	100.00	95.36	67.37	53.85	34.62	21.88	8.36	1.33	
15	RUDP-CS-561	15-Dec-19	N-2	Chising Khola	100.00	93.46	74.36	52.72	29.28	14.19	4.63	1.58	
16	RUDP-CS-562	16-Dec-19	R-9	Chising Khola	100.00	91.01	79.72	53.34	22.07	13.45	7.06	1.19	
17	RUDP-CS-563	17-Dec-19	T3L25D	Chising Khola	100.00	92.55	80.45	54.93	20.17	11.48	5.34	1.42	
19	RUDP-CS-564	19-Dec-19	R-9	Chising Khola	100.00	92.65	73.36	59.91	24.13	14.80	6.82	1.05	
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

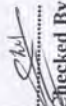

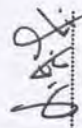

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO., LTD

Consultant

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH
B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &
ARCHITECTS (P) LTD KATHMANDU, NEPALChecked By
Engineer
Dhirendra YadavSubmitted By
Contract Manager
Rabindra K. ThakurVerified By
Expert Qty Surveyor/CSE
H.K. Mandal/Rajan ShresthaApproved By
Team Leader
Gireesh Chand


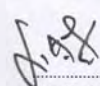


REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of Concrete Sand													
S.n.	Lab. Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Remarks	
					10	5.0	2.36	1.18	0.600	0.300	0.150		Clay Content%
20	RUDP-CS-565	19-Dec-19	T3L10A	Chisang Khola	100.00	93.96	63.31	33.10	23.91	15.24	7.44	1.15	Concrete Sand
21	RUDP-CS-566	20-Dec-19	R-83	Chisang Khola	100.00	93.70	73.37	45.85	30.30	15.95	2.71	1.96	
22	RUDP-CS-567	21-Dec-19	T2L24B	Chisang Khola	100.00	90.76	69.06	40.24	33.73	18.60	6.51	1.05	
23	RUDP-CS-568	22-Dec-19	N-8	Chisang Khola	100.00	95.71	76.70	56.96	34.30	18.93	10.84	1.84	
24	RUDP-CS-569	23-Dec-19	R-39	Chisang Khola	100.00	92.33	66.06	50.64	24.68	14.60	6.70	1.54	
25	RUDP-CS-570	24-Dec-19	R-44	Chisang Khola	100.00	94.98	69.41	59.58	31.49	20.06	8.02	1.79	
26	RUDP-CS-571	25-Dec-19	T3L7A	Chisang Khola	100.00	94.98	65.72	53.96	22.93	11.41	5.20	1.65	
27	RUDP-CS-572	26-Dec-19	T3L25A	Chisang Khola	100.00	94.65	74.11	52.37	21.74	14.23	4.50	1.16	
					Spec. Limit :								
					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

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 Dharendra Yadav	Submitted By  Contract Manager Rabindra K. Thakur	Verified By  Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	Approved By  Team Leader Gireesh Chand



REGIONAL URBAN DEVELOPMENT PROJECT





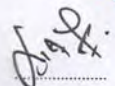

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet Of Monthly Test Report

							Month Year	December 2019
							Type of Material	Brick
S.N.	Lab Ref.N o.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks
1	884	2-Dec-19	T3L10	Dadarbairya	ACC	13.81	12.84	
2	885	2-Dec-19	R-26	Dadarbairya	ACC	14.33	14.11	
3	886	2-Dec-19	R-12	Dadarbairya	ACC	12.97	15.41	
4	887	2-Dec-19	R-26	Dadarbairya	ACC	14.67	14.17	
5	888	3-Dec-19	R-46	Dadarbairya	ACC	11.53	14.33	
6	889	3-Dec-19	R-39	Dadarbairya	ACC	13.67	15.09	
7	890	3-Dec-19	R-5	Dadarbairya	ACC	13.29	15.50	
8	891	3-Dec-19	T2L25D	Dadarbairya	ACC	12.95	15.03	
9	892	4-Dec-19	N-7	Dadarbairya	ACC	11.88	15.47	
10	893	4-Dec-19	N-8	Dadarbairya	ACC	15.32	14.71	
11	894	4-Dec-19	T3L24B	Dadarbairya	ACC	13.27	13.29	
12	895	4-Dec-19	T3L10A	Dadarbairya	ACC	16.40	14.39	
13	896	4-Dec-19	T1L7A	Dadarbairya	ACC	15.17	15.32	
14	897	6-Dec-19	T1L7B	Dadarbairya	ACC	13.57	15.20	
15	898	6-Dec-19	R-2	Dadarbairya	ACC	13.20	14.11	
16	899	7-Dec-19	T2L25D	Dadarbairya	ACC	13.32	15.43	
17	900	8-Dec-19	R-39	Dadarbairya	Anand	13.72	14.11	
18	901	8-Dec-19	R-44	Dadarbairya	ACC	12.53	12.45	
19	902	8-Dec-19	R-46	Dadarbairya	ACC	14.51	14.96	
20	903	9-Dec-19	R-26	Dadarbairya	ACC	14.18	15.45	
21	904	9-Dec-19	R-12	Dadarbairya	ACC	14.66	14.51	
22	905	9-Dec-19	R-44	Dadarbairya	ACC	14.28	14.53	
23	906	9-Dec-19	T3L10	Dadarbairya	ACC	14.74	15.87	
24	907	9-Dec-19	R-2	Dadarbairya	ACC	15.43	15.23	
25	908	11-Dec-19	T2L24B	Dadarbairya	ACC	13.88	14.70	
26	909	11-Dec-19	N-7	Dadarbairya	ACC	13.93	13.90	
27	910	11-Dec-19	T3L10A	Dadarbairya	ACC	12.92	13.58	
28	911	12-Dec-19	T1L7A	Dadarbairya	ACC	13.52	14.93	
29	912	12-Dec-19	T2L25D	Dadarbairya	ACC	12.14	15.14	
30	913	13-Dec-19	T3L10A	Dadarbairya	ACC	16.07	16.03	
31	914	13-Dec-19	N-7	Dadarbairya	ACC	15.24	15.14	
32	915	13-Dec-19	T3L10	Dadarbairya	ACC	13.95	14.44	
33	916	13-Dec-19	R-44	Dadarbairya	ACC	13.53	16.14	
Sp. Limit						<20%	>8 to 10 N/mm ²	
Comments:-								
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 Dhirendra Yadav					 Verified By Expert Qty Surveyor/CSE H.K.Mandal/Rajan Shrestha			
 Submitted By Contract Manager Rabindra Kr. Thakur					 Approved By Team Leader Giresh Chand			



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet Of Monthly Test Report

							Month	December
							Year	2019
							Type of Material	Brick
S.N.	Lab Ref.N o.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks
34	917	13-Dec-19	N-8	Dadarbairya	ACC	15.63	16.06	
35	918	13-Dec-19	T2L25D	Dadarbairya	Anand	12.81	15.71	
36	919	13-Dec-19	T1L7A	Dadarbairya	Anand	13.12	16.33	
37	920	13-Dec-19	R-12	Dadarbairya	Anand	12.74	13.47	
38	921	13-Dec-19	T1L7B	Dadarbairya	Anand	15.36	14.55	
39	922	13-Dec-19	N-7	Dadarbairya	Anand	15.44	15.32	
40	923	15-Dec-19	T3L10A	Dadarbairya	Anand	12.25	14.01	
41	924	15-Dec-19	T3L25A	Dadarbairya	Anand	14.43	14.01	
42	925	15-Dec-19	T3L10	Dadarbairya	Anand	15.00	13.70	
43	926	16-Dec-19	R-44	Dadarbairya	Anand	15.75	13.42	
44	927	16-Dec-19	R-26	Dadarbairya	Anand	13.42	15.67	
45	928	18-Dec-19	R-39	Dadarbairya	Anand	14.81	14.97	
46	929	18-Dec-19	N-8	Dadarbairya	Anand	12.87	14.79	
47	930	17-Dec-19	T3L25A	Dadarbairya	Anand	13.33	15.31	
48	931	17-Dec-19	R-2	Dadarbairya	Anand	13.37	12.27	
49	932	17-Dec-19	T2L24B	Dadarbairya	Anand	13.86	14.42	
50	933	19-Dec-19	R-44	Dadarbairya	Anand	14.50	14.85	
51	934	19-Dec-19	N-7	Dadarbairya	Anand	13.91	14.34	
52	935	19-Dec-19	R-26	Dadarbairya	Anand	14.65	13.42	
53	936	21-Dec-19	N-8	Dadarbairya	Anand	14.65	13.42	
54	937	21-Dec-19	T1L7A	Dadarbairya	Anand	12.58	14.57	
55	938	21-Dec-19	N-7	Dadarbairya	Anand	11.41	16.38	
56	939	21-Dec-19	R-46	Dadarbairya	Anand	15.01	14.04	
57	940	21-Dec-19	T2L25D	Dadarbairya	Anand	13.83	15.40	
58	941	21-Dec-19	R-44	Dadarbairya	Anand	14.99	14.20	
59	942	21-Dec-19	T3L24B	Dadarbairya	Anand	14.42	16.04	
60	943	21-Dec-19	T1L7A	Dadarbairya	Anand	15.73	14.45	
61	944	22-Dec-19	R-3	Dadarbairya	Anand	16.70	14.79	
62	945	22-Dec-19	N-8	Dadarbairya	Anand	15.46	12.87	
63	946	22-Dec-19	N-8	Dadarbairya	Anand	13.36	14.21	
64	947	25-Dec-19	T3L10A	Dadarbairya	Anand	14.77	14.42	
65	948	25-Dec-19	R-12	Dadarbairya	Anand	14.92	15.62	
66	949	25-Dec-19	N-8	Dadarbairya	Anand	14.44	13.61	
Sp. Limit						<20%	>8 to 10 N/mm ²	
Comments:-								
Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD.					Consultant 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 Dharendra Yadav					 Submitted By Contract Manager Rabindra Kr. Thakur			
					 Verified By Expert Qty Surveyor/CSE H.K.Mandal/Rajan Shrestha			
					 Approved By Team Leader Giresh Chand			



Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet Of Monthly Test Report



Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

SUMMARY SHEET OF CEMENT TEST

[illegible]

Comments:-

Contractor

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

Consultant

**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
Dhirendra yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Export Qty Surveyor
H.K. Mandal/Rajan S



Approved By
Team Leader
Gires Chaud

REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
							Page no 1				
							Month		December		
							Year		2019		
							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/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
1	T3L19F	MR-2334	Ambe Hi-tech	OPC	Chisang Khola	3-Nov-19	10-Nov-19	1-Dec-19	9.78	7.5	
2	R-12	MR-2335	Ambe Hi-tech	OPC	Chisang Khola	3-Nov-19	10-Nov-19	1-Dec-19	9.50	7.5	
3	R-12	MR-2336	Ambe Hi-tech	OPC	Chisang Khola	3-Nov-19	10-Nov-19	1-Dec-19	9.64	7.5	
4	T3L10A	MR-2337	Ambe Hi-tech	OPC	Chisang Khola	4-Nov-19	11-Nov-19	2-Dec-19	9.78	7.5	
5	T3L10	MR-2338	Ambe Hi-tech	OPC	Chisang Khola	4-Nov-19	11-Nov-19	2-Dec-19	10.06	7.5	
6	T3L19F	MR-2339	Ambe Hi-tech	OPC	Chisang Khola	5-Nov-19	12-Nov-19	3-Dec-19	9.78	7.5	
7	T3L10	MR-2340	Ambe Hi-tech	OPC	Chisang Khola	6-Nov-19	13-Nov-19	4-Dec-19	8.80	7.5	
8	T3L19F	MR-2341	Ambe Hi-tech	OPC	Chisang Khola	8-Nov-19	15-Nov-19	6-Dec-19	9.22	7.5	
9	T3L10	MR-2342	Ambe Hi-tech	OPC	Chisang Khola	8-Nov-19	15-Nov-19	6-Dec-19	10.06	7.5	
10	T3L10	MR-2343	Ambe Hi-tech	OPC	Chisang Khola	8-Nov-19	15-Nov-19	6-Dec-19	9.36	7.5	
11	T3L19F	MR-2344	Ambe Hi-tech	OPC	Chisang Khola	13-Nov-19	20-Nov-19	11-Dec-19	9.50	7.5	
12	N-38	MR-2345	Ambe Hi-tech	OPC	Chisang Khola	14-Nov-19	21-Nov-19	12-Dec-19	8.80	7.5	
13	T3L10A	MR-2346	Ambe Hi-tech	OPC	Chisang Khola	16-Nov-19	23-Nov-19	14-Dec-19	8.66	7.5	
14	T3L19F	MR-2347	Ambe Hi-tech	OPC	Chisang Khola	19-Nov-19	26-Nov-19	17-Dec-19	9.36	7.5	
15	N-38	MR-2348	Ambe Hi-tech	OPC	Chisang Khola	21-Nov-19	28-Nov-19	19-Dec-19	10.34	7.5	
16	T3L19F	MR-2349	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	8.66	7.5	
17	N-38	MR-2350	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	9.92	7.5	
18	T3L10A	MR-2351	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	9.08	7.5	
19	T3L10A	MR-2352	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	6.01	8.52	7.5
20	T3L25A	MR-2353	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	6.43	7.96	7.5
21	T3L10A	MR-2354	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	6.01	8.10	7.5
22	R-12	MR-2355	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	7.06	8.24	7.5
23	R-26	MR-2356	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	5.87	9.22	7.5
24	R-46	MR-2357	Ambe Hi-tech	OPC	Chisang Khola	28-Nov-19	5-Dec-19	26-Dec-19	6.43	8.66	7.5
25	R-44	MR-2358	Ambe Hi-tech	OPC	Chisang Khola	28-Nov-19	5-Dec-19	26-Dec-19	6.99	9.50	7.5
26	R-39	MR-2359	Ambe Hi-tech	OPC	Chisang Khola	29-Nov-19	6-Dec-19	27-Dec-19	6.15	8.52	7.5
27	R-2	MR-2360	Ambe Hi-tech	OPC	Chisang Khola	29-Nov-19	6-Dec-19	27-Dec-19	6.71	8.66	7.5
28	R-39	MR-2361	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	6.57	9.36	7.5
29	R-2	MR-2362	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	6.01	8.94	7.5
30	T3L24B	MR-2363	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	6.43	8.38	7.5
31	T3L10A	MR-2364	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	6.99	9.22	7.5
32	T3L7A	MR-2365	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	5.87	8.94	7.5

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		Consultant 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 Dharendra Yadav	 Submitted By Contract Manager Rabindra Kr. Thakur	 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	 Approved By Team Leader Giresh Chand

REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
							Page no 2				
							Month		December		
							Year		2019		
							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/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
33	T3L7B	MR-2366	Ambe Hi-tech	OPC	Chisang Khola	2-Dec-19	9-Dec-19	30-Dec-19	6.43	9.08	7.5
34	R-26	MR-2367	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	6.15	8.80	7.5
35	R-46	MR-2368	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	6.85		7.5
36	R-39	MR-2369	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	5.73		7.5
37	R-39	MR-2370	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	6.57		7.5
38	T3L25A	MR-2371	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	6.43		7.5
39	T1L7A	MR-2372	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	6.43		7.5
40	T1L7B	MR-2373	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	6.29		7.5
41	R-12	MR-2374	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	5.73		7.5
42	T3L10A	MR-2375	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	6.71		7.5
43	R-2	MR-2376	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	6.43		7.5
44	R-39	MR-2377	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	6.29		7.5
45	T3L24B	MR-2378	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	5.87		7.5
46	T3L7B	MR-2379	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	6.71		7.5
47	T3L25A	MR-2380	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	7.13		7.5
48	R-12	MR-2381	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	6.01		7.5
49	R-44	MR-2382	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	5.87		7.5
50	R-39	MR-2383	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	6.57		7.5
51	T3L7A	MR-2384	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	6.15		7.5
52	R-26	MR-2385	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	6.01		7.5
53	T3L24B	MR-2386	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	5.87		7.5
54	R-2	MR-2387	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	6.29		7.5
55	R-39	MR-2388	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	6.71		7.5
56	T1L7A	MR-2389	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	6.29		7.5
57	R-26	MR-2390	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	5.73		7.5
58	R-2	MR-2391	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	6.43		7.5
59	R-39	MR-2392	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	6.71		7.5
60	T3L25A	MR-2393	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	6.29		7.5
61	R-12	MR-2394	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	6.57		7.5
62	R-26	MR-2395	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	6.57		7.5
63	R-44	MR-2396	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	6.71		7.5
64	R-39	MR-2397	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	6.43		7.5

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> <p>Checked By Engineer Dhirendra Yadav</p>	<p>Consultant</p> <p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,</p> <p>Submitted By Contract Manager Rabindra Kr. Thakur</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p>	<p>Approved By Team Leader Gireesh Chand</p>
---	---	---	--



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Mortar Test Report											
							Page no 3				
							Month		December		
							Year		2019		
							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/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
65	T3L10A	MR-2398	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	6.57		7.5
66	T3L10A	MR-2399	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	5.87		7.5
67	T1L7B	MR-2400	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	6.71		7.5
68	R-2	MR-2401	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	6.57		7.5
69	R-44	MR-2402	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.01		7.5
70	R-26	MR-2403	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.71		7.5
71	T3L10A	MR-2404	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.29		7.5
72	R-2	MR-2405	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.15		7.5
73	T3L24B	MR-2406	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.01		7.5
74	T3L24A	MR-2407	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	6.29		7.5
75	R-26	MR-2408	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	7.27		7.5
76	R-39	MR-2409	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.99		7.5
77	T3L10A	MR-2410	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.29		7.5
78	T1L7A	MR-2411	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.57		7.5
79	T1L7B	MR-2412	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	5.73		7.5
80	T3L25A	MR-2413	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.01		7.5
81	T3L10A	MR-2414	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.99		7.5
82	R-12	MR-2415	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	6.15		7.5
83	R-26	MR-2416	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	6.43		7.5
84	R-44	MR-2417	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	5.87		7.5
85	R-39	MR-2418	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	6.29		7.5
86	R-2	MR-2419	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	6.85		7.5
87	R-39	MR-2420	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	6.43		7.5
88	T3L24B	MR-2421	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	6.29		7.5
89	T3L10A	MR-2422	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	5.73		7.5
90	T3L7A	MR-2423	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	6.43		7.5
91	T3L7B	MR-2424	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	6.57		7.5
92	R-26	MR-2425	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	6.01		7.5
93	R-46	MR-2426	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	6.15		7.5
94	R-39	MR-2427	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	5.59		7.5
95	T3L10A	MR-2428	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	6.71		7.5
96	R-12	MR-2429	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	6.99		7.5

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		Consultant 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 Dhirendra Yadav	 Submitted By Contract Manager Rabindra Kr. Thakur	 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	 Approved By Team Leader Gireesh Chand


Summary Sheet of Mortar Test Report

Brick Wall

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>	<p>Consultant</p> <p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>
<p>Checked By Engineer Dhirendra Yadav</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p>
<p>Submitted By Contract Manager Rabindra Kr. Thakur</p>	<p>Approved By Team Leader Gireesh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT										
Biratnagar Metropolitan City										
Contract No:- RUDP/ICB/BRT-02										
Summary Sheet of Concrete Cube Test Report										
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		December	
							Year		2019	
							Type of Material		Conc. Cube	
						Date of Testing		Strength, N/mm ²		
						7 Days	28 Days	7 Days	28 Days	
								Concrete Grade		
1	T3L19F	RUDP-2693	Ambe Hi-tech	OPC	Chisang Khola	4-Nov-19	11-Nov-19	2-Dec-19	24.48	M20
2	T3L10	RUDP-2694	Ambe Hi-tech	OPC	Chisang Khola	6-Nov-19	13-Nov-19	4-Dec-19	21.86	M20
3	T3L19F	RUDP-2695	Ambe Hi-tech	OPC	Chisang Khola	6-Nov-19	13-Nov-19	4-Dec-19	21.86	M20
4	R-28	RUDP-2696	Ambe Hi-tech	OPC	Chisang Khola	8-Nov-19	15-Nov-19	6-Dec-19	22.11	M20
5	N-38	RUDP-2697	Ambe Hi-tech	OPC	Chisang Khola	11-Nov-19	18-Nov-19	9-Dec-19	22.84	M20
6	R-44	RUDP-2698	Ambe Hi-tech	OPC	Chisang Khola	12-Nov-19	19-Nov-19	10-Dec-19	22.35	M20
7	R-7	RUDP-2699	Ambe Hi-tech	OPC	Chisang Khola	12-Nov-19	19-Nov-19	10-Dec-19	22.75	M20
8	R-4	RUDP-2700	Ambe Hi-tech	OPC	Chisang Khola	14-Nov-19	21-Nov-19	12-Dec-19	23.20	M20
9	R-44	RUDP-2701	Ambe Hi-tech	OPC	Chisang Khola	14-Nov-19	21-Nov-19	12-Dec-19	22.45	M20
10	R-2	RUDP-2702	Ambe Hi-tech	OPC	Chisang Khola	14-Nov-19	21-Nov-19	12-Dec-19	22.53	M20
11	T3L19F	RUDP-2703	Ambe Hi-tech	OPC	Chisang Khola	16-Nov-19	23-Nov-19	14-Dec-19	22.88	M20
12	R-12	RUDP-2704	Ambe Hi-tech	OPC	Chisang Khola	16-Nov-19	23-Nov-19	14-Dec-19	23.05	M20
13	R-40	RUDP-2705	Ambe Hi-tech	OPC	Chisang Khola	16-Nov-19	23-Nov-19	14-Dec-19	22.75	M20
14	T3L10	RUDP-2706	Ambe Hi-tech	OPC	Chisang Khola	18-Nov-19	25-Nov-19	16-Dec-19	23.88	M20
15	T3L19F	RUDP-2707	Ambe Hi-tech	OPC	Chisang Khola	18-Nov-19	25-Nov-19	16-Dec-19	22.68	M20
16	R-4	RUDP-2708	Ambe Hi-tech	OPC	Chisang Khola	18-Nov-19	25-Nov-19	16-Dec-19	22.75	M20
17	R-4	RUDP-2709	Ambe Hi-tech	OPC	Chisang Khola	18-Nov-19	25-Nov-19	16-Dec-19	17.01	M15
18	R-12	RUDP-2710	Ambe Hi-tech	OPC	Chisang Khola	18-Nov-19	25-Nov-19	16-Dec-19	22.73	M20
19	Koshi yard	RUDP-2711	Ambe Hi-tech	OPC	Chisang Khola	19-Nov-19	26-Nov-19	17-Dec-19	23.67	M20
20	R-28	RUDP-2712	Ambe Hi-tech	OPC	Chisang Khola	19-Nov-19	26-Nov-19	17-Dec-19	21.71	M20
21	RUDP-2713	Ambe Hi-tech	OPC	Chisang Khola	21-Nov-19	28-Nov-19	19-Dec-19	22.60	M20	
22	N-38	RUDP-2714	Ambe Hi-tech	OPC	Chisang Khola	21-Nov-19	28-Nov-19	19-Dec-19	22.73	M20
23	T3L10A	RUDP-2715	Ambe Hi-tech	OPC	Chisang Khola	21-Nov-19	28-Nov-19	19-Dec-19	23.94	M20
24	R-12	RUDP-2716	Ambe Hi-tech	OPC	Chisang Khola	21-Nov-19	28-Nov-19	19-Dec-19	22.26	M20
25	R-12	RUDP-2717	Ambe Hi-tech	OPC	Chisang Khola	22-Nov-19	29-Nov-19	20-Dec-19	21.74	M20
26	Koshi yard	RUDP-2718	Ambe Hi-tech	OPC	Chisang Khola	22-Nov-19	29-Nov-19	20-Dec-19	22.69	M20
27	R-2	RUDP-2719	Ambe Hi-tech	OPC	Chisang Khola	22-Nov-19	29-Nov-19	20-Dec-19	22.45	M20
28	R-44	RUDP-2720	Ambe Hi-tech	OPC	Chisang Khola	22-Nov-19	29-Nov-19	20-Dec-19	22.81	M20
29	R-12	RUDP-2721	Ambe Hi-tech	OPC	Chisang Khola	22-Nov-19	29-Nov-19	20-Dec-19	23.06	M20
30	R-4	RUDP-2722	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	23.21	M20
31	Koshi yard	RUDP-2723	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	23.36	M20
32	T3L19F	RUDP-2724	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	23.13	M20
33	R-12	RUDP-2725	Ambe Hi-tech	OPC	Chisang Khola	23-Nov-19	30-Nov-19	21-Dec-19	23.36	M20
34	R-12	RUDP-2726	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	14.90	M20
35	T3L25A	RUDP-2727	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	15.43	M20
36	Koshi yard	RUDP-2728	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	15.65	M20
37	R-4	RUDP-2729	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	11.44	M15
38	T3L10A	RUDP-2730	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	14.23	M20
39	R-4	RUDP-2731	Ambe Hi-tech	OPC	Chisang Khola	24-Nov-19	1-Dec-19	22-Dec-19	16.25	M20
40	R-12	RUDP-2732	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	17.36	M20
41	R-3	RUDP-2733	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	15.35	M20
42	R-5	RUDP-2734	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	16.17	M20
43	N-10	RUDP-2735	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	16.69	M20
44	R-26	RUDP-2736	Ambe Hi-tech	OPC	Chisang Khola	25-Nov-19	2-Dec-19	23-Dec-19	15.28	M20
45	R-46	RUDP-2737	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	14.61	M20
46	R-44	RUDP-2738	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	15.50	M20
47	Koshi yard	RUDP-2739	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	16.02	M20

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD	Consultant 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 Dharendra Yadav	Submitted By Contract Manager Rabindra K. Thakur
Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	Approved By Team Leader Giresh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City



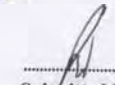


Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		December	
							Year		2019	
							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		
48	R-39	RUDP-2740	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	15.43	22.11
49	R-5	RUDP-2741	Ambe Hi-tech	OPC	Chisang Khola	26-Nov-19	3-Dec-19	24-Dec-19	15.80	23.85
50	T3L25D	RUDP-2742	Ambe Hi-tech	OPC	Chisang Khola	27-Nov-19	4-Dec-19	25-Dec-19	15.65	23.77
51	N-7	RUDP-2743	Ambe Hi-tech	OPC	Chisang Khola	27-Nov-19	4-Dec-19	25-Dec-19	16.10	24.91
52	N-8	RUDP-2744	Ambe Hi-tech	OPC	Chisang Khola	27-Nov-19	4-Dec-19	25-Dec-19	15.73	23.36
53	T2L24B	RUDP-2745	Ambe Hi-tech	OPC	Chisang Khola	27-Nov-19	4-Dec-19	25-Dec-19	14.90	22.48
54	T2L24B	RUDP-2746	Ambe Hi-tech	OPC	Chisang Khola	27-Nov-19	4-Dec-19	25-Dec-19	14.90	23.03
55	Koshi-yard	RUDP-2747	Ambe Hi-tech	OPC	Chisang Khola	28-Nov-19	5-Dec-19	26-Dec-19	14.83	24.25
56	T3L10A	RUDP-2748	Ambe Hi-tech	OPC	Chisang Khola	28-Nov-19	5-Dec-19	26-Dec-19	16.17	22.73
57	R-83	RUDP-2749	Ambe Hi-tech	OPC	Chisang Khola	28-Nov-19	5-Dec-19	26-Dec-19	15.57	22.18
58	T1L7A	RUDP-2750	Ambe Hi-tech	OPC	Chisang Khola	29-Nov-19	6-Dec-19	27-Dec-19	16.40	23.07
59	R-83	RUDP-2751	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	16.84	22.33
60	T1L7A	RUDP-2752	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	15.95	23.85
61	T1L7B	RUDP-2753	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	16.77	23.77
62	Koshi-yard	RUDP-2754	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	16.69	24.69
63	T1L7B	RUDP-2755	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	14.75	23.13
64	R-2	RUDP-2756	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	15.28	21.69
65	T3L25A	RUDP-2757	Ambe Hi-tech	OPC	Chisang Khola	30-Nov-19	7-Dec-19	28-Dec-19	14.75	22.29
66	T3L10	RUDP-2758	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	15.50	22.88
67	Koshi-yard	RUDP-2759	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	15.65	23.25
68	R-4	RUDP-2760	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	14.68	24.91
69	R-12	RUDP-2761	Ambe Hi-tech	OPC	Chisang Khola	1-Dec-19	8-Dec-19	29-Dec-19	14.75	23.80
70	N-10	RUDP-2762	Ambe Hi-tech	OPC	Chisang Khola	2-Dec-19	9-Dec-19	30-Dec-19	14.38	24.25
71	R-26	RUDP-2763	Ambe Hi-tech	OPC	Chisang Khola	2-Dec-19	9-Dec-19	30-Dec-19	14.31	22.84
72	Koshi-yard	RUDP-2764	Ambe Hi-tech	OPC	Chisang Khola	2-Dec-19	9-Dec-19	30-Dec-19	15.68	22.18
73	R-44	RUDP-2765	Ambe Hi-tech	OPC	Chisang Khola	2-Dec-19	9-Dec-19	30-Dec-19	15.50	23.88
74	N-3	RUDP-2766	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	16.32	22.58
75	Koshi-yard	RUDP-2767	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	15.05	23.03
76	R-39	RUDP-2768	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	15.05	23.18
77	R-5	RUDP-2769	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	15.80	24.14
78	T2L25D	RUDP-2770	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	16.25	23.84
79	N-7	RUDP-2771	Ambe Hi-tech	OPC	Chisang Khola	3-Dec-19	10-Dec-19	31-Dec-19	16.10	24.37
80	T2L24B	RUDP-2772	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	15.87	
81	R-83	RUDP-2773	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	16.17	
82	T1L7A	RUDP-2774	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	16.82	
83	T1L7B	RUDP-2775	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	14.61	
84	Koshi-yard	RUDP-2776	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	15.28	
85	R-39	RUDP-2777	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	16.85	
86	R-44	RUDP-2778	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	15.20	
87	R-9	RUDP-2779	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	14.90	
88	Koshi-yard	RUDP-2780	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	14.75	
89	T3L25A	RUDP-2781	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	15.05	
90	T3L10A	RUDP-2782	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	15.57	
91	R-12	RUDP-2783	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	17.15	
92	R-44	RUDP-2784	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21	14.61	
93	Koshi-yard	RUDP-2785	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21	16.77	
94	T2L25D	RUDP-2786	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21	16.40	
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 Dhirendra Yadav							 Submitted By Contract Manager Rabindra K. Thakur			
 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha							 Approved By Team Leader Giresch Chand			




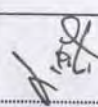



REGIONAL URBAN DEVELOPMENT PROJECT										
Biratnagar Metropolitan City										
Contract No:- RUDP/ICB/BRT-02										
Summary Sheet of Concrete Cube Test Report										
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		December	
							Year		2019	
							Type of Material		Conc. Cube	
						Date of Testing		Strength, N/mm ²		Concrete Grade
						7 Days	28 Days	7 Days	28 Days	
95	N-7	RUDP-2787	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	15.50	M20
96	T3L25D	RUDP-2788	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	15.88	M20
97	R-5	RUDP-2789	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	16.25	M20
98	T3L10A	RUDP-2790	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	16.10	M20
99	Koshi-yard	RUDP-2791	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	14.98	M20
100	R-4	RUDP-2792	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	16.70	M20
101	T3L10	RUDP-2793	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	16.62	M20
102	T1L7B	RUDP-2794	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	15.13	M20
103	T3L10A	RUDP-2795	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	14.90	M20
104	T3L10A	RUDP-2796	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	15.80	M20
105	N-8	RUDP-2797	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	15.28	M20
106	R-2	RUDP-2798	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	16.69	M20
107	R-44	RUDP-2799	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	15.05	M20
108	R-12	RUDP-2800	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	15.05	M20
109	N-10	RUDP-2801	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	16.10	M20
110	Koshi-yard	RUDP-2802	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	16.69	M20
111	T3L10	RUDP-2803	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	15.72	M20
112	R-26	RUDP-2804	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	15.65	M20
113	Koshi-yard	RUDP-2805	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	16.25	M20
114	Madhumara-yard	RUDP-2806	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	18.27	M25
115	T3L25D	RUDP-2807	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	15.57	M20
116	T3L24B	RUDP-2808	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	15.87	M20
117	R-46	RUDP-2809	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-20	17-Dec-20	7-Jan-21	16.25	M20
118	T3L10A	RUDP-2810	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	14.46	M20
119	R-83	RUDP-2811	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	16.25	M20
120	Koshi-yard	RUDP-2812	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	15.80	M20
121	Madhumara-yard	RUDP-2813	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	18.93	M25
122	R-5	RUDP-2814	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	15.28	M20
123	N-7	RUDP-2815	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	14.68	M20
124	R-46	RUDP-2816	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	14.23	M20
125	R-39	RUDP-2817	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	15.13	M20
126	Koshi-yard	RUDP-2818	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	14.90	M20
127	R-12	RUDP-2819	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	15.80	M20
128	R-4	RUDP-2820	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	15.95	M20
129	R-4	RUDP-2821	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	12.34	M15
130	R-4	RUDP-2822	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	16.25	M20
131	R-12	RUDP-2823	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	16.10	M20
132	Koshi-yard	RUDP-2824	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	17.14	M20
133	Madhumara-yard	RUDP-2825	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	18.34	M20
134	T3L10	RUDP-2826	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	16.33	M20
135	T3L25A	RUDP-2827	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	14.53	M20
136	R-12	RUDP-2828	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	16.69	M20
137	R-26	RUDP-2829	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	14.46	M20
138	Koshi-yard	RUDP-2830	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	17.06	M20
139	R-3	RUDP-2831	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	16.32	M20
140	R-46	RUDP-2832	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	16.40	M20
141	R-4	RUDP-2833	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-20	21-Dec-20	11-Jan-21	12.86	M15

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDEU, NEPAL	
Checked By  Dhirendra Yadav Engineer	Submitted By  Rabinendra K. Thakur Contract Manager	Verified By  H.K. Mandal/Rajan Shrestha Expert Qty Surveyor/CSE	Approved By  Gireesh Chand Team Leader







REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Concrete Cube Test Report											
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		December		Conc. Cube
							Year		2019		
							Type of Material		Strength, N/mm ²		
							Date of Testing		7 Days		28 Days
142	R-44	RUDP-2834	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	16.10		M20
143	R-39	RUDP-2835	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	15.57		M20
144	R-4	RUDP-2836	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	16.40		M20
145	R-5	RUDP-2837	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	15.43		M20
146	R-2	RUDP-2838	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	17.52		M20
147	R-3	RUDP-2839	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.28		M20
148	Koshi-yard	RUDP-2840	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	17.15		M20
149	N-2	RUDP-2841	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.35		M20
150	N-10	RUDP-2842	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	14.46		M20
151	R-9	RUDP-2843	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.65		M20
152	TIL7A	RUDP-2844	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.15		M20
153	R-4	RUDP-2845	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	13.35		M20
154	R-4	RUDP-2846	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	17.15		M20
155	R-12	RUDP-2847	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	14.46		M20
156	R-44	RUDP-2848	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	16.39		M20
157	Koshi-yard	RUDP-2849	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	16.47		M20
158	N-7	RUDP-2850	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	16.02		M20
159	N-8	RUDP-2851	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.28		M20
160	TIL7A	RUDP-2852	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	14.75		M20
161	T3L24B	RUDP-2853	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	15.87		M20
162	R-5	RUDP-2854	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	16.65		M20
163	R-83	RUDP-2855	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.80		M20
164	T3L10A	RUDP-2856	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	14.68		M20
165	R-3	RUDP-2857	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	17.15		M20
166	Koshi-yard	RUDP-2858	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	17.74		M20
167	R-4	RUDP-2859	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	12.34		M20
168	R-4	RUDP-2860	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	13.27		M15
169	Madhumara-yard	RUDP-2861	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	17.82		M25
170	TILL7B	RUDP-2862	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.35		M20
171	T3L25A	RUDP-2863	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	14.23		M20
172	R-5	RUDP-2864	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.35		M20
173	N-8	RUDP-2865	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.57		M20
174	N-2	RUDP-2866	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.20		M20
175	R-9	RUDP-2867	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	16.69		M20
176	N-10	RUDP-2868	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	16.62		M20
177	R-12	RUDP-2869	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	16.33		M20
178	Koshi-yard	RUDP-2870	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	18.12		M20
179	R-46	RUDP-2871	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	15.72		M20
180	R-5	RUDP-2872	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	15.28		M20
181	Koshi-yard	RUDP-2873	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	14.38		M20
182	Koshi-yard	RUDP-2874	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	17.67		M20
183	R-12	RUDP-2875	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	14.75		M20
184	TIL7A	RUDP-2876	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	16.69		M20
185	Madhumara-yard	RUDP-2877	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	18.57		M20
186	Koshi-yard	RUDP-2878	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	23.13		M30
187	T2L24B	RUDP-2879	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	15.35		M20
188	R-44	RUDP-2880	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	16.69		M15

Contractor  ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		Consultant 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 Dharendra Yadav	 Submitted By Contract Manager Rabindra K.Thakur	 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	 Approved By Team Leader Giresch Chand



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Concrete Cube Test Report											
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		December		
							Year		2019		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
							7 Days	28 Days	7 Days	28 Days	
											Concrete Grade
189	N-7	RUDP-2881	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	14.90		M20
190	R-2	RUDP-2882	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	15.80		M20
191	Koshi Yard	RUDP-2883	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	18.12		M20
192	T3L10	RUDP-2884	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	14.98		M20
193	T2L2SD	RUDP-2885	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	16.77		M20
194	R-12	RUDP-2886	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	15.13		M20
195	R-5	RUDP-2887	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	16.25		M20
196	Koshi Yard	RUDP-2888	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	14.75		M20
197	T3L25A	RUDP-2889	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	15.35		M20
198	N-10	RUDP-2890	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	15.20		M20
199	R-4	RUDP-2891	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	17.52		M20
200	R-39	RUDP-2892	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	15.43		M20
201	R-9	RUDP-2893	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	17.59		M20
202	R-4	RUDP-2894	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	13.68		M20
203	R-4	RUDP-2895	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	12.79		M-15
204	T3L10	RUDP-2896	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	15.95		M20
205	R-39	RUDP-2897	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	16.17		M20
206	N-2	RUDP-2898	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	14.61		M20
207	R-2	RUDP-2899	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	15.95		M20
208	Koshi Yard	RUDP-2900	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	18.05		M20
209	Koshi Yard	RUDP-2901	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	14.90		M20
210	T2L24E	RUDP-2902	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	16.39		M20
211	R-46	RUDP-2903	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	15.35		M20
212	R-26	RUDP-2904	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	14.68		M20
213	R-2	RUDP-2905	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	16.39		M20
214	R-4	RUDP-2906	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	17.52		M20
215	Madhumara-Yard	RUDP-2907	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	20.36		M25
216	Koshi Yard	RUDP-2908	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	23.50		M30
217	T1L7B	RUDP-2909	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	15.05		M20
218	T3L25A	RUDP-2910	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	15.05		M20
219	T3L10	RUDP-2911	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	14.98		M20
220	Koshi Yard	RUDP-2912	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	17.08		M20
221	Koshi Yard	RUDP-2913	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	15.43		M20
222	Koshi Yard	RUDP-2914	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	14.46		M20
223	R-4	RUDP-2915	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	16.92		M20
224	R-3	RUDP-2916	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	14.90		M20
225	R-46	RUDP-2917	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	16.10		M20
226	R-44	RUDP-2918	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	15.28		M25
227	Madhumara-Yard	RUDP-2919	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	18.05		M20
228	N-7	RUDP-2920	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	15.05		M20
229	Koshi Yard	RUDP-2921	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	15.72		M20
230	Koshi Yard	RUDP-2922	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	14.83		M20
231	R-12	RUDP-2923	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	15.28		M20
232	T3L24B	RUDP-2924	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	16.32		M20
233	R-26	RUDP-2925	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	15.05		M20
234	N-7	RUDP-2926	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	16.10		M20
235	T1L7B	RUDP-2927	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20	16.77		M15

Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		Consultant 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 Dharendra Yadav	 Submitted By Contract Manager Rabindra K. Thakur	 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	 Approved By Team Leader Giresh Chand



Summary Sheet of Concrete Cube Test Report



ANNEX-4: SOCIAL& ENVIRONMENT SAFEGUARD

Monitoring Formats Attached – December 2019



Regional Urban Development Project (RUDP)
Project Implementation Unit (PIU)
Biratnagar, Nepal
LABOUR DATA SUMMARY

LABOUR CLASS	LABOUR		COMPOSITION		ETHNIC COMPOSITION				
	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI
LOCAL	21	72	93	0	5	18	8	62	0
NON LOCAL	74	279	328	25	56	58	25	214	0
INDIAN	2	7	9	0	0	5	4	0	0
TOTAL	97	358	430	25	61	81	37	276	0



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA													Month/Year: Dece, 2019
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI		
1	R2	Drain Group A	LOCAL	3	12	15	0	5	0		0	10	
			NON LOCAL										
			INDIAN										
			TOTAL	15									0
2	R2	Drain Group B	LOCAL	4	12	16	0	0	5	5	6	0	
			NON LOCAL										
			INDIAN										
			TOTAL	16									
3	Ranl	Drain	LOCAL	3	7	7	3	0	8	2	0	0	
			NON LOCAL										
			INDIAN										
			TOTAL	10									
5	Ranl	Kerbstone	LOCAL	4	8	12	0	8	0	0	4	0	
			NON LOCAL										
			INDIAN										
			TOTAL	12									
6	R4	RCC Drain	LOCAL	3	13	16	0	0	5	0	11	0	
			NON LOCAL										
			INDIAN										
			TOTAL	16									
7	R26	Drain	LOCAL	4	10	14	0	0	4	5	5	0	
			NON LOCAL										
			INDIAN										
			TOTAL	14									
8	T1L7A	Drain	LOCAL	2	10	12	0	0	4	0	8	0	
			NON LOCAL										
			INDIAN										
			TOTAL	12									
9	T1L7B	Drain	LOCAL	3	11	14	0	0	4	5	5	0	
			NON LOCAL										
			INDIAN										
			TOTAL	14									



Regional Urban Development Project (RUDP)
Project Implementation Unit (PIU)
Biratnagar, Nepal
LABOUR DATA

Month/Year: Dec, 2019

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI		
10	R110	Drain Maintenance	LOCAL										
			NON LOCAL	2	10	12	0	0	0	12		0	
			INDIAN										
			TOTAL	12									
11	N7	Drain	LOCAL	4	16	20	0	5	5	0	10		0
			NON LOCAL										
			INDIAN										
			TOTAL	20									
12	N8	Drain	LOCAL										
			NON LOCAL	3	12	15	0	0	5	4	6		0
			INDIAN										
			TOTAL	15									
13	R3 Trunk Line	Drain	LOCAL										
			NON LOCAL	2	12	14	0	4	0	5	5		0
			INDIAN										
			TOTAL	14									
14	R5 (T2L24)	Drain	LOCAL	4	13	17	0	7	0	0	10		0
			NON LOCAL										
			INDIAN										
			TOTAL	17									
15	T3L10C	Gutter	LOCAL	2	6	8	0	0	0	0	8		0
			NON LOCAL										
			INDIAN										
			TOTAL	8									
16	R45	Gutter	LOCAL										
			NON LOCAL	3	8	11	0	0	5	0	6		0
			INDIAN										
			TOTAL	11									
17	R3 Trunk Line	Kerbstone	LOCAL										
			NON LOCAL	2	7	9	0	0	2	0	7		0
			INDIAN										
			TOTAL	9									
18	B3		LOCAL										
			NON LOCAL	4	12	16	0	5	5	0	6		0
			INDIAN										
			TOTAL	16									



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA													Month/Year: Dec, 2019
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DAIT	MUSLIM	MADHESI		
19	R2	House Connection	LOCAL NON LOCAL INDIAN TOTAL	2 11	9 	11 	0 	0 	0 	0 	11 	0 	
20	R39	Drain	LOCAL NON LOCAL INDIAN TOTAL	3 12	9 	12 	0 	0 	2 	0 	10 	0 	
21	R3	Sub-base	LOCAL NON LOCAL INDIAN TOTAL	2 8	6 	8 	0 	0 	0 	3 	5 	0 	
22	R101	Sub-base	LOCAL NON LOCAL INDIAN TOTAL	2 7	5 	7 	0 	0 	0 	0 	7 	0 	
19	Madhumara Yard	Production	LOCAL NON LOCAL INDIAN TOTAL	5 27	22 	27 	0 	7 	3 	0 	17 	0 	
20	Koshi Yard+ DDC	Production	LOCAL NON LOCAL INDIAN TOTAL	4 30	26 	30 	0 	10 	5 	0 	15 	0 	
21	R3	Asphalt	LOCAL NON LOCAL INDIAN TOTAL	2 12	10 	12 	0 	0 	0 	0 	12 	0 	
22	R5	Gutter	LOCAL NON LOCAL INDIAN TOTAL	2 11	9 	11 	0 	0 	6 	0 	5 	0 	
	R4	Kerbstone	NON LOCAL INDIAN TOTAL	4 16	12 	16 	0 	6 	0 	4 	6 	0 	
21	T315	Sewer Inlet	LOCAL NON LOCAL INDIAN TOTAL	2 6	4 	6 	0 	0 	0 	0 	6 	0 	



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA													Month/Year: Dece, 2019
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI		
22	R47(T3L10A)	Drain	LOCAL										
			NON LOCAL	2	12	14	0	4	5	0	5	0	
			INDIAN										
			TOTAL	14									
19	T3L25A	Drain	LOCAL										
			NON LOCAL	2	7	9	0	0	5	4	0	0	
			INDIAN										
			TOTAL	9									
20	R3	House Connection	LOCAL	4	11	15	0	0	3	0	12	0	
			NON LOCAL										
			INDIAN										
			TOTAL	15									
21	R83	Weep Whole	LOCAL										
			NON LOCAL	2	5	7	0	0	0	0	7	0	
			INDIAN										
			TOTAL	7									
22	R9	Prime	LOCAL										
			NON LOCAL	2	4	6	0	0	0	0	6	0	
			INDIAN										
			TOTAL	6									
20	R5	Brooming	LOCAL										
			NON LOCAL	3	22	3	22	0	0	0	25	0	
			INDIAN										
			TOTAL	25									
21	N10	Road Paint	LOCAL										
			NON LOCAL	2	6	8	0	0	0	0	8	0	
			INDIAN										
			TOTAL	8									
LABOUR CLASS				LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI		
LOCAL				21	72	93	0	5	18	8	62	0	
NON LOCAL				74	279	328	25	56	58	25	214	0	
INDIAN				2	7	9	0	0	5	4	0	0	
TOTAL				97	358	430	25	61	81	37	276	0	



B. Details of Equipment at Site / Contractor's yard

S.N	Equipment Type and Characteristics	ZHONGHENG CONSTRUCTION GROUP
1	Excavator	1
2	Backhoe Loader	9
3	Asphalt plant of adequate capacity	1
4	Asphalt pavers	1
5	Vibrating roller	4
6	Pneumatic tyre roller 8 to 10 ton	2
7	Smooth wheeled roller 8 to 10 ton	2
8	Tipper	4
9	Crane	1
10	Water Tank	10
11	Grader	2
12	Bitumen distributor (4 to 6 Kilo litre)-	1
13	Water browser (minimum 5000 Litres)	9
14	Chips spreader	0
15	Bitumen decanter minimum 4000 Litres.	2
16	Air compressor	2
17	Tipping Trucks	2
18	Service vehicle	4
19	Total station	1
20	Auto Level	30
21	Mobile Generator 15-20 Kva	18
22	Mixer Machine	5
23	Broomer	1
24	Plate Compactor	5
25	Water Pump	18
26	Motorbike	12
27	Tractor	25



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: December, 2019

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

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	Non use of child labour in construction activities	√					



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: December. 2019

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	
1.2	Others awareness and skill trainings	No	
2	Occupational health and safety		
2.1	Insurance for workers	Yes	
2.2	Personal Protective Equipment (PPE) provided to labors and is using (helmet, facemasks, muffles, gloves, boots, jacket, goggles etc.)	Daily Provided	
2.3	Public notification Safety and warning signs and informative signboards in working sites for work safety	Yes Provided	
2.4	Use of barricades, caution tape and flag	Daily Used	
3	Campsite management		
3.1	Location	Pichra, Judi, Shanti Chowk, Rani	
3.2	First aid facilities available at camp and worksites	Yes	
3.3	Drinking water supply and sanitation facilities/ pit latrines	Tap water/ Hand Pump	
3.4	Waste Disposal and Management facilities	Yes	
3.5	Type of fuel used for cooking	L.P.G	
4	Spoil and Construction material Management		
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Cut & Fill balance maintained	
4.2	Use of safe spoil disposal locations	Not Applicable	
4.3	Disturbance to Pedestrian and traffic movement	No any disturbance to pedestrians & traffic	



4.4	Use of private land and agreement with land owners	movement Yes	
5	Air, Noise and Water Pollution		
5.1	Dust emission and Noise pollution sites	Water sprinkled by tanker on such sites.	
5.2	Water quality monitoring result and locations	ok	
5.3	Block age of natural drainages ,water logging, drain water discharge into farmland/risky areas	Not Applicable	
6	Quarrying of construction materials and Plants Installment		
6.1	Quarry/borrow operation sites	Not Applicable	
6.2	Crusher plant and Asphalt plant operation restoration	Asphalt Plant	
7	Impact/Disruption of Private properties		
7.1	Building structures	Not Applicable	
7.2	Other utilities	Not Applicable	
8	Impact/disruption of public infrastructures		
8.1	Irrigation canal	Not Applicable	
8.2	Water supply pipe	Not Applicable	
8.3	Access road	Not Applicable	
8.4	Electric/Telephone pole	Not Applicable	
8.5	Others	Not Applicable	
9	Sites for cultural and religious values		
9.1	Cultural and religious sensitive spots (if any)	Not Applicable	
10	Forest and vegetation		
10.1	Number of trees removal	00	
10.2	No of tree plantation (Roadside)	Not Applicable	
11	Accident cases and records	No any records	
12	Employment to local people		
12.1	Men and women	Yes, both men and women	
12.2	Child labor (if any)	No	
13	Establishment of Safeguard desk and meeting	Yes	
14	Grievances from local people and addressed	Yes	



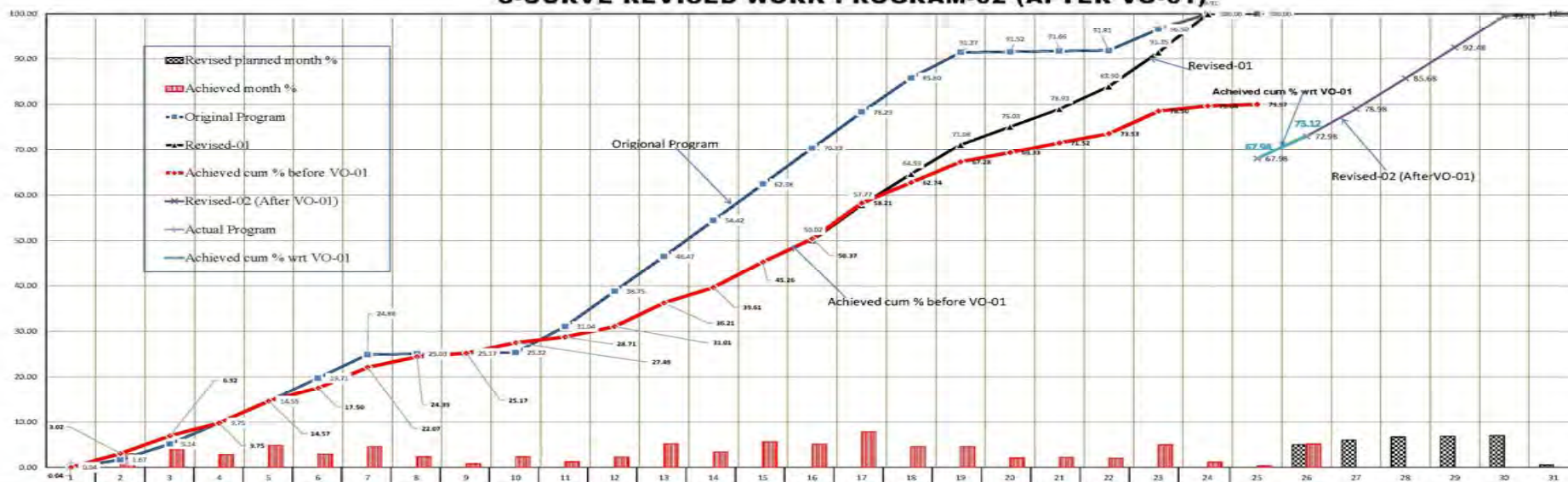
ANNEX-5: S-Curve

ATTACHED – December 2019



Revised -02 (After VO-01)

**BIRATNAGAR METROPOLITAN CITY
REGIONAL URBAN DEVELOPMENT PROJECT (RUDP)
S-CURVE REVISED WORK PROGRAM-02 (AFTER VO-01)**

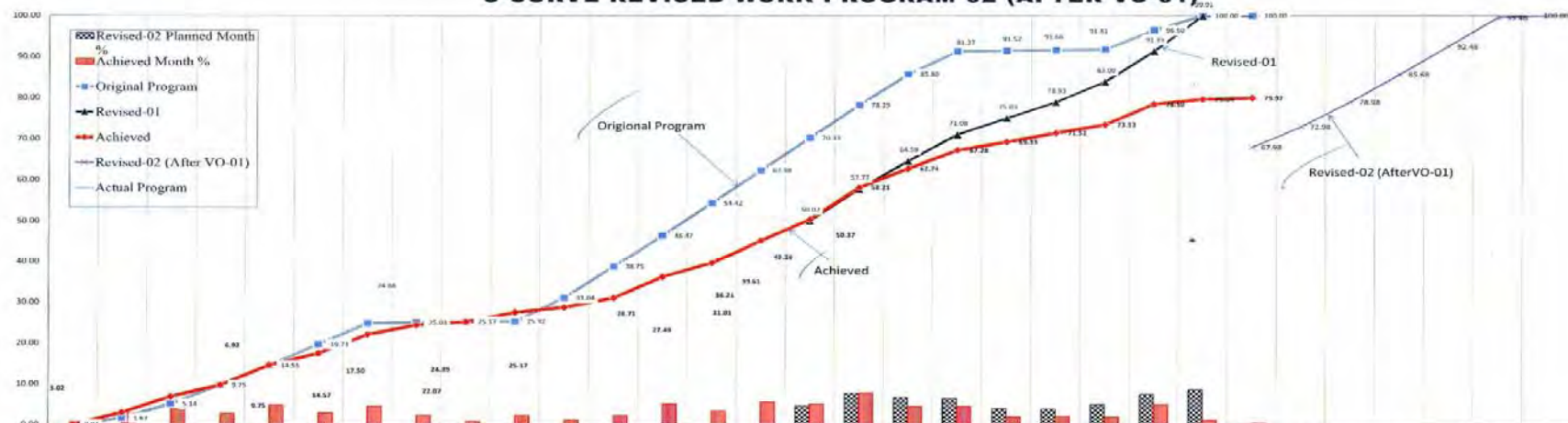


Year/Month	2017		2018												2019												2020					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
	Scheduled Work Program														Revised Work program - 01											Revised After VO-01						
Original Planned Month %	0.04	1.63	3.48	4.60	5.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.99	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	2.51	0.00								
Original Planned Cum %	0.04	1.67	5.14	9.75	14.55	19.71	24.88	25.03	25.17	25.32	31.04	38.75	46.47	54.42	62.38	70.33	78.29	85.80	91.37	91.52	91.66	91.81	96.50	100.00	100.00							
Achieved month %	0.04	2.98	3.90	2.83	4.82	2.93	4.57	2.32	0.78	2.32	3.22	2.30	5.20	3.40	5.65	5.11	7.84	4.53	4.54	2.05	2.19	2.01	4.97	3.14	0.33	5.14						
Achieved Progress Cum%	0.04	3.02	6.92	9.75	14.57	17.50	22.07	24.39	25.17	27.49	28.71	31.01	36.21	39.61	45.26	50.37	58.21	62.74	67.28	69.33	71.52	73.53	78.50	79.64	79.97	73.12						
Revised Planned Month %																4.76	7.75	6.82	6.49	3.95	3.90	4.97	7.45	8.56	0.000							
Revised Planned Cum %																50.02	57.77	64.59	71.08	75.03	78.93	83.90	91.35	99.91	100.00							
Revised Planned Month % after VO-01																											5.00	6.00	6.70	6.30	7.00	8
Revised Planned Cum After VO-01%																										67.98	72.98	78.98	85.65	92.48	99.48	100
Revised planned month Amount in 100000																1099.89	1790.79	1575.90	1499.65	912.73	901.17	1181.42	1721.47	1977.96		1221.62						
Achieved Month Amount in 100000																1180.77	1811.59	1046.75	1049.06	473.66	506.04	464.45	1148.42	263.42		1255.92						
Revised planned Cum Amount in 100000																11558.30	13349.59	14925.49	16425.14	17337.36	18239.04	19387.45	21108.91	23086.39		17830.71						
Achieved Cum Amount in 100000																11639.67	13451.26	14498.01	15547.07	16620.76	16556.81	16993.28	18139.68	18403.10		17864.92						



Revised -02 (After VO-01)

BIRATNAGAR METROPOLITAN CITY
REGIONAL URBAN DEVELOPMENT PROJECT (RUDP)
S-CURVE REVISED WORK PROGRAM-02 (AFTER VO-01)



Year/Month	2016														2017														2018													
	2016		2017		2018		2019		2020		2021		2022		2023		2024		2025		2026		2027		2028		2029		2030		2031											
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May											
Original Planned Month %	0.04	1.83	3.40	4.00	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.93	5.57	0.15	0.15	0.15	4.00	1.51	0.00																		
Original Planned Cum %	0.04	1.67	5.14	9.75	14.55	19.71	24.88	25.03	25.17	25.32	31.04	38.75	46.47	54.21	62.33	70.33	78.29	83.80	91.37	91.52	91.66	91.81	96.30	100.00	100.00																	
Achieved Month %	0.04	2.98	3.90	2.83	4.82	2.91	4.57	2.32	0.18	2.17	1.22	2.30	3.78	3.40	5.65	5.11	7.84	4.53	4.34	2.05	7.19	7.01	4.97	1.14	0.33																	
Achieved Progress Cum %	0.04	3.02	6.92	9.75	14.37	17.30	22.07	24.38	25.17	27.40	28.71	31.01	36.31	39.61	43.26	48.37	56.21	60.74	67.28	69.33	71.32	73.33	78.30	79.64	79.97																	
Revised Planned Month %																																										
Revised Planned Cum %																																										
Revised Planned Month After VO-01 %																																										
Revised Planned Cum After VO-01 %																																										
Revised planned month Amount in INR0000																																										
Achieved Month Amount in INR0000																																										
Revised planned Cum Amount in INR0000																																										
Achieved Cum Amount in INR0000																																										



Annex-6: Master Plan of RUDP Project



