

ORIGINAL



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



October 2018

Biratnagar Metropolitan City (BMC), Nepal

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EXECUTIVE SUMMARY

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

1. **Introduction/ Background-** It provides brief Account of the Project and its Background stating why, how and when the Project was started in Biratnagar Metropolitan City.
2. **Salient Feature of Contract Package: RUDP/ICB/BRT/2-** It provides brief Account of Contract Data with Major components of works to be carried out.
3. **SubProjectComponents-** It provides brief Account of various Sectors of the Project component summarizing the respective Progress such as Sewer Line, Storm Water Drain, Road side Drain, Roads and Lanes and Electrification Work if any. This Chapter further covers Environment Mitigation Measures and Social Safeguard measures.
4. **Objective and Scope of Works-** This Chapter briefly describes the expected output of the Project and Scope of Consultant regarding execution of Work.
5. **Progress of Sub – Project Components-** This Chapter comprises the status of Work stating what kind of works are being under Progress and how much Progress has been achieved till date. It further elaborates on the status of actual achievement versus the Targeted achievement till date. Having said that, the Progress may get affected by unpredicted events frequently occurring in case of our Country Nepal so such events are also enlisted for viewing the reasons behind affected Progress.
6. **Details of Pre Cast Activities-** Details of Precast activities are also provided in this Chapter in order to demonstrate the Progress by the Contractor. Since in Urban Sector the Work is required to conduct in speedy manner, Precast work is best alternate to be provided. Hence, the details of Precast activities have been provided in order to determine whether the Contractor is able to meet the Schedule or not.
7. **Contractor's Manpower and Contractor's Equipment-** Chapter 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 linewith 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 BiratnagarMunicipality.BuildingDesign Authority (P) Ltd (Nepal) ,B.N. Consultancy Pvt.ltd and PLUS Engineers & Architects (P) Ltd Kathmandu and have entered for a Contract ofConsulting Services with Regional Urban DevelopmentProject (RUDP), ProjectImplementation Unit(PIU), BiratnagarMetropolitanCity on 28thOctober 2017.

Regional Urban DevelopmentProject (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	1 st November 2019
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Progress	
Road Rehabilitation (Asphalt)	19.18%
Sewer Line	40.79%
Storm Drain	97.44%
Road Side Drain	51.84%
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	Planned : 38.75% , Actual : 31.02%; Lead(+) or Lag(-) by (-) 7.73%
Financial Progress up to date	In Percentage: 28.71%, In Figure: NRs. 749,668,654.07(including VAT,PS and Price Adjustment)
	In Words: NRs. Seven Hundred Forty Nine Million Six Hundred Sixty Eight Thousand Six Hundred Fifty Four and Paisa Seven Only.



3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

S.No	Description	Unit	BoQ Quantity	Progress up to date	Remaining	Progress Status expressed in %	Remarks
1	Sewer Line						
a	HDPE/RCC	m	20,082.00	8,191.00	11,891.00	40.79%	
b	Manhole	No.	656.00	276.00	380.00	42.07%	
c	Sewer Inlet	No.	1,010.00	220.00	790.00	21.78%	
d	House Connection	No.	3,784.00	275.00	3,509.00	7.27%	
2	Storm Water Drain						
a	RCC Drain	m	652.89/585	570.00	15.00	97.44%	Revised Length =585m
b	Piles	No.	132.00	138.00	(6.00)	100.00%	Exceeded
3	Road						
a	Subgrade	m	73,860.00	27,070.25	46,789.75	36.65%	
b	Subbase	m	73,860.00	26,386.65	47,473.35	35.73%	
c	Base	m	73,860.00	18,398.10	55,461.90	24.91%	
d	Prime	m	73,860.00	14,167.45	59,692.55	19.18%	
e	Asphalt	m	73,860.00	14,167.45	59,692.55	19.18%	
4	Road Side Drain	m	26,050.00	13,504.59	12,545.42	51.84%	



3.1 SUB PROJECT COMPONENTS

3.1.1 SEWER LINES

Surveying works going on after identifying the all sewer lines i.e. T1, T2, T3, and T4. Production of manhole cover and precast are also going on at yard. In this month, the contractor has started sewer inlet and House connection chambers at T2 Line 18C, T2 Line 18A, T2 Line 26E, T2 Line 27, R12, R65, R87, R84, R45, T3 Line 11K, T3 Line 11i, R1, T3 Line 39, T3 Line 39B, T3L21(A), R7, etc

Table 1: PROPOSED SEWER LINES

S. NO.	Description	Unit	Original Quantity
1	Sewerage Pipe Supply and Installation	m	20,082.00
	Reinforced Concrete Pipe laying and jointing		2241.00
	Line T2 (Secondary)	m	206.00
	Line T3 (Trunk)	m	1905.00
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	17,841.00
	Line T1 (Secondary)	m	1,825.00
	Line T2 (Secondary)	m	3,927.00
	Line T3 (Secondary)	m	9,997.00
	Line T4 (Secondary)	m	2,092.00
2	Manhole (Brick / RCC)	no.	685.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	73.86
6	Road side Drain	Km	26.05
7	Storm Water Drain	m	652.8



Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till October2018

SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %	
		Length (m)	Manhole (no)	Length(m)	Manhole	Length	Manhole	Length (m)	Manhole (no)		
					(no)		(m)				(no)
1	Hume pipe(T2)	206.00	6.00							40.79%	
2	Hume pipe(T3)	1,905.00	58.00	292.00	6.00			292.00	6.00		
3	Hume Pipe (T4)	130.00	4.00	326.00	11.00			326.00	11.00		
	Subtotal in (m)	2,241.00	68.00	618.00	17.00	-	-	618.00	17.00		
1	HDPE(T1)	1,825.00	57.00	1,037.00	30.00			1,037.00	30.00		
2	HDPE(T2)	3,927.00	147.00	2,996.00	113.00			2,996.00	113.00		
3	HDPE(T3)	9,997.00	316.00	2,771.00	97.00			2,771.00	97.00		
4	HDPE(T4)	2,092.00	68.00	769.00	19.00			769.00	19.00		
	Subtotal in (m)	17,841.00	588.00	7,573.00	259.00	-	-	7,573.00	259.00		
	Total	20,082.00	685.00	8,191.00	276.00	-	-	8,191.00	276.00		
	Sewer Inlet	BoQ(no)		Up to Pre Month		This month		Total to date			Progress %
1	Sewer inlet	1,010.00			107.00		113.00		220.00		21.78
2	House connection	3,784.00			113.00		162.00		275.00	7.27	

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 stopped due to monsoon. The detail of the progress is shown in the table:



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

S N	Name of Drain	Length in m					Type of Drain	Work Completed				Length of Covered Drain in m	Remarks
		Original	Revised	Progress		Cumulative		Brick		RCC			
				Previous	This Month			m	M³	m	M³		
1	CN2- CN3(ChyanghBaariNala)	652.89	585	570	0	570	RCC, closed			570		570	
2	CN2- CN3(ChyanghBaariNala)	132 nos piles	138	138	0	138 nos.							Piling works 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. This month, the contractor has started work of R3, DSP Road and Rani. Some of the roads of the project has been completed and some of them are in the process of being upgraded and the summary is presented below.

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

SN	Road Number	Name of Road	Length in m					Work Completed				Remarks
			Original	Revised	Progress		Total	Sub-base	Base	Asphalt	RCC	
					Previous	This Month		m	m	m	m	
1	R42	Bhagwati Marg	218	218	218		218	218	218	123		
2	R5	College Road	970	970	650		650	650	650			
3	B2	Gauri Shankar Marg	2777.83	2777.83	2152		2152	2152	2152	1999.8	210	
4	R65	Satghumti Marg	282	320	320		320	320				
5	R107		173	215	215		215	215				
6	R107 a		50	50	50		50	50				
7	R104	VIP Marg	273	273	273		273	273	273	273		
8	R3A	Madhumara Marg	600	600	600		600	600	600	582		



9	B1	Kanchan Marg	1172.94	1173	1173		1173	1173	1106	1106		
10	R21	Pratibha Marg	1320	1320	950		950	950	950	689.6		
11	B3	Keshaliya Marg	1574	1574	1574		1574	1574	1627.75	1627.75		
12	S13		1617	1617	1417		1417	1417	1417	1433.3		
13	R12	Kanchha Dai Marg	1192	1192	837		837	837	837			
14	Rani site	Rani	4023	4023	2315	460	2775	2315	1702	1096		
15	R16	Satya Marg	604	604	604		604	604	604	542.1		
16	R26	Pasang Marg	617	654	654		654	654	654	215		
17	R28	Pustakalaya Marg	635	635	635		635	635	635	339.2		
18	R27	Peepal Marg	810	810	580		580	580	580	300		
19	R25	Devi Marg	599	580	580		580	580	580	561.7		
20	R24	Prabhat Marg	384.41	380	380		380	380	380	364.95		
21	R37	Banglamukhi Marg	420	477	477		477	477	477	200.7		
22	R7	Manakamana Marg	814	814	242		242	242	242			
23	R30	Shanti Marg	212	212	123.1		123.1		123.1	123.1		
24	R9	Fadindra Marg	123	123	119		119		119	119		
25	S11	Samrat Marg	660	660	660		660	660	504.6	504.6		
26	R22	Amar Marga	373.1	367.65	367.65		367.65	367.65	367.65	367.65		
27	R29	Shanti Marg	620	620	299		299	299	299	299		
28	R36	Gaurav Marg	218	218	220		220					
29	R33	Tarun Marg	285	285	171.5		171.5					
30	R64	Satya Narayan Marg	121	121	121		121	121				
31	R8			225	225		225	225				
32	N36			190	190		190	190				
33	R188	Shakti Marg	-	120	120		120	120				
34	R2	Main Road	-	300	300		300	300				
35	T3 Line 6A	PanditMrghnath Marg	-	220	220		220	220				
36	T2 Line 24C	Nava Jyoti Marg	-	205	205		205	205				
37	T2 Line 24D	Nava Jyoti Marg	-	210	210		210	210				
38	R63 (DSP Road)	DSP Road	420	420	420		420	420				
39	R90	Shakti Marg	450	380	380		380	380				
40	R77	Arniko Marg	80	80	80		80	80				
41	R76	Mitra Marg	270	270	270		270	270				



42	R183	Nava Jyoti Marg	240	240	240		240	240				
43	T1 L16B	Xenial Front	210	210	210		210	210				
44	T1 L16A	Xenial South	140	140	140		140	140				
45	R114	Dharanidhar Marg	560	560	560		560	560	560	560		
46	R113	Kavi Lekh Marg	740	740	740		740	740	740	740		
47	R5a		370	370	370		370	560				
48	Rani site B		600	520	520		520	740				
49	R3	Dharamban Marg		2233		2233	2233	2233				
Total					24377	2693	27070	26386.7	18398.1	14167.5	210	

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

SN	Road Num ber	Name of Road	Type*	Category		Length in m					Footpath		Remar ks
						Original	Revised	Progress		Cumula tive			
				<3m	>3m			Previous	This Month		m	M2	
1	B2	Gauri Shankar Marg	Precast block			2777.83	2777.83	900	800	1700	1700	2379.89	
2	S11	Bhatta Chowk	Precast block			900	900	0	300	300	300	2380.89	

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

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73,860.00	24,377.25	2,693.00	27,070.25	36.65%
2	Sub Base	m	73,860.00	24,153.65	2,233.00	26,386.65	35.73%
3	Base	m	73,860.00	18,398.10	-	18,398.10	24.91%
4	Prime	m	73,860.00	14,167.45	-	14,167.45	19.18%
5	Asphalt	m	73,860.00	14,167.45	-	14,167.45	19.18%



3.1.4 ROAD SIDE DRAIN

Most of the roads under this project for upgrading is without drain or existing drain in poor condition. The project has provisioned drain at both sides or one side as per the 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 October, 2018.

S N	Road Num ber	Name of Road	Length in m					Work Completed		Rema rks
			Origin al	Revised	Progress		Total	Brick	RCC	
					Previous	This Month		m	m	
1	B1	Kanchan Marg	0	0	90	0	90	90		
2	R29	Shanti Marg	270	256.52	256.52	0	256.52	256.52		
3	N36		0	190	186	0	186	186		
4	R8		370	370	230	0	230	230		
5	R7	Devi Marg and Pipal Marg	155	155	89.575	0	89.575	89.575		
6	R63	DSP Road	418.79	418.79	198.8	0	198.8	198.8		
7	R9	Baglamukhi path	120	103.2	103.2	0	103.2	103.2		
8	S13	Udaya Marga	0	158.1	158.1	0	158.1	158.1		
9	N33		0	70	70	0	70	70		
10	R28	Pustakalaya Marg	340	278	278	0	278	278		one side
11	R90	Shakti Marg	320	475	475	0	475	475		135m one side only
12	R114	Dharanidhar Marg	0	312.33	312.33	0	312.33	312.33		
13	R11	Om Shiv Marg	0	200	200	0	200	200		
14	R18		0	382.5	382.5	0	382.5	382.5		
15	R17		0	360.85	360.85	0	360.85	360.85		
16	R113	Kavi Lekhnath Marg	0	312.45	312.45	0	312.45	312.45		one side
17	R77	Arniko Marg	97	80.5	80.5	0	80.5	80.5		
18	R76	Mitra Marg	272	275	274	0	274	274		
19	N9	Devi Marga	0	222.7	222.7	0	222.7	222.7		
20	N4		0	170	147	0	147	147		
21	R33	Tarun Marg	0	265	264.48	0	264.48	264.48		
22	R36	Gaurav Marg	218	216.4	216.4	0	216.4	216.4		
23	R86	Janpath Marg	215	215	187	0	187	187		
24	R183	Nava Jyoti Marg	242	211	211	0	211	211		
25	R7a		77.81	68.55	68.55	0	68.55	68.55		



26	Rani site	Rani B	0	650	530	0	530	530		
27	Rani site	Rani A	0	300	270	0	270	270		
28	N3		0	120	110	0	110	110		
29	N5		0	40	40	0	40	40		
30	R21	Binayak Marga	0	390	390	0	390	390		
31	R2	Main Road	2060	2060	592.5	0	592.5	592.5		
32	T1L16 B	Xenial Front	0	210	205.68	0	205.68	205.68		
33	T1L16 A	Xenial South	0	160	160	0	160	160		
34	R75	Tintoliya Marga	135	135	255	0	255	255		
35	R122	Amar Marga	0	251	251	0	251	251		
36	R18 Branch		0	30	30	0	30	30		
37	R7(b)(Neuro to sidhartha chowk)	Siddhartha Marga	317	317	148.5		148.5	148.5		
38	R12	Sukra Path	0	953	300	50	350	350		
39	R42	Jahada Marga	0	150	171	0	171	171		
40	R6	Shahi Marg	460	430	430	0	430		430	
41	R21(a)	DharamBadh Junction	0	160	160	0	160	160		one side
42	R78	Binayak Marga	92	70	70	0	70	70		one side
43	R188	Shakti Marg		120	120	0	120	120		one side
44	R40	Brahma Kumari Marga	0	350	300	0	300	300		
45	Rani Site C		0	100	97.5	0	97.5	97.5		
46	Rani Site D		0	131.45	131.45	0	131.45	131.45		
47	T3L21	Moti Marga	380	380	361	0	361	361		
48	T3L39	Gaheli Marga	0	278	270	0	270	270		
49	T3 Line 39A		0	90	90	0	90	90		
50	T3 L39B		0	50	50	0	50	50		
51	T2L27	Bhumi Prashasan Junction	92	80	80	0	80	80		
52	T4 Line 1	Sailesh Marg	0	197	100	0	100	100		
53	N2			100	95	0	95	95		
54	T2 Line 26E	College Road	80	80	80	0	80	80		
55	T2 Line 18C	Maisthan Marga	0	105	102	0	102	102		one side



56	T2Line 18A	Makalu Marga	90	90	60	0	60	60		
57	R6 (T3L1 li)		0	275	58	80	138	138		
58	R9(T3 L11k)	Tathasthu Marga	0	200	115	85	200	200		
59	R45 (T3 Line 10D)	Dadharam Marga	302	302	140	60	200	200		
60	R9 T2 L19	Fanindra Marga	0	225	40	107.5	147.5	147.5		
61	R7 (Neuro to Shanti Chowk	Siddhartha Marga	240	605	172	180	352	352		
62	R84	School Marga	673	391	170	100	270	270		
63	R85	Lekhanath Marga	162	162	145	0	145	145		
64	R87	Byas Marga	160	160	80	70	150	150		
65	Rani B (Bus park)		0	120	68		68	68		
66	R8(a)	Madhumara Marg	218	218	141	0	141	141		
67	Rani E	Rani	85	85		85	85	85		
68	R102	Hamro Marg	142	142	0	92.5	92.5	92.5		
69	R10	Ram Marga	180	180	0	40	40	40		
	Total				12554.59	950.00	13504.59	13074.59	430.00	

3.5 ENVIRONMENTAL ASPECT

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

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

Borrow/ quarry sites.

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

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

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.

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

Various works defined under this item are related to provision a maintenance camps for work person and employees, Contractor's site office, stores equipment yards and workshops. The camps must beadequate rain roof, Spacious,airy,and hygienic with proper lighting and material storage facilities. The area shall be kept neat and clean etc.

Labour camps are provided at per the requirement at various locations.Visit to the Monitoring of the labour camp is done frequently and found to be satisfactory. The details of labor camp is provided in the Annex.

Provision and maintenance of Toilets.

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

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

Crushing plants.

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

Hot mix plants and Batching plants.

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

Occupational Health and Safety Measures

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

The project is 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 in habitants 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. DhirajSardar.

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.

3.6 SOCIAL ASPECT

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

Safeguard/ GESI Component

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.

Grievance Redresses Mechanism:

Total Nine minor grievances have been registered in the GRC desk upto October, 2018. The GRC committee has immediately addressed registered Grievances and concerns raised from the concerned Stakeholders including Project beneficiaries.

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 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.

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 dated 19 October, 2018 and 20 October, 2018 following issues were discovered.

- i. The use of Personal Protection Equipment (PPE) was very few and thus very unsatisfactory.



- ii. Proper Barricade was not done as well as caution signs and signals were not sufficiently used in Drainage and Sewer work Locations.
- iii. Toilet at labour camp is found unhygienic. Dustbin not provided.
- iv. Tests were done to find the quality of drinking water in labor camp and the result has been attached hereby.
- v. Information on the safety measures were not properly displayed on the information board in some yards.

Considering above mentioned issues, the Contractor was instructed to use PPE, Barricades and proper signs and signals at working site, hygienic toilet, water test, dustbin. The implementation of Social and Environmental Safeguards measures during this month was found partially satisfactory. The contractor has conducted water quality test and the report is attached in the Annex.

Status of Relocation of Services

Relocation of Electric poles was done at R90, Rani and B1 Road. Similarly, relocation of water supply pipe lines were done at various locations at R6, R2, T3 Line 39, T3 Line 21, N2, R84 etc

Status of Labour at Site

LABOUR CLASS	LABOUR		COMPOSITION		ETHNIC COMPOSITION				
	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN CHHETRI
LOCAL	29	79	104	4	26	12	0	70	0
NON LOCAL	70	153	210	13	95	24	0	104	0
TOTAL	99	232	314	17	121	36	0	174	

3.7 FINANCIAL PLAN

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

3.7.1 DISBURSEMENT RECORDS IN CONSTRUCTION

Table:-5 DISBURSEMENT RECORDS in CONSTRUCTION

S.No	Description	Submission date	Submitted Amount(NRs)	Remarks
1	IPC 01	15 th October 2017	339,105,000.00	Mobilization Advance
2	IPC02	2 nd April 2018	281,807,143.94	
3	IPC 03	1 st July 2018	350,151,414.42	
4	IPC 04	1 st October 2018	117,710,095.72	



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:

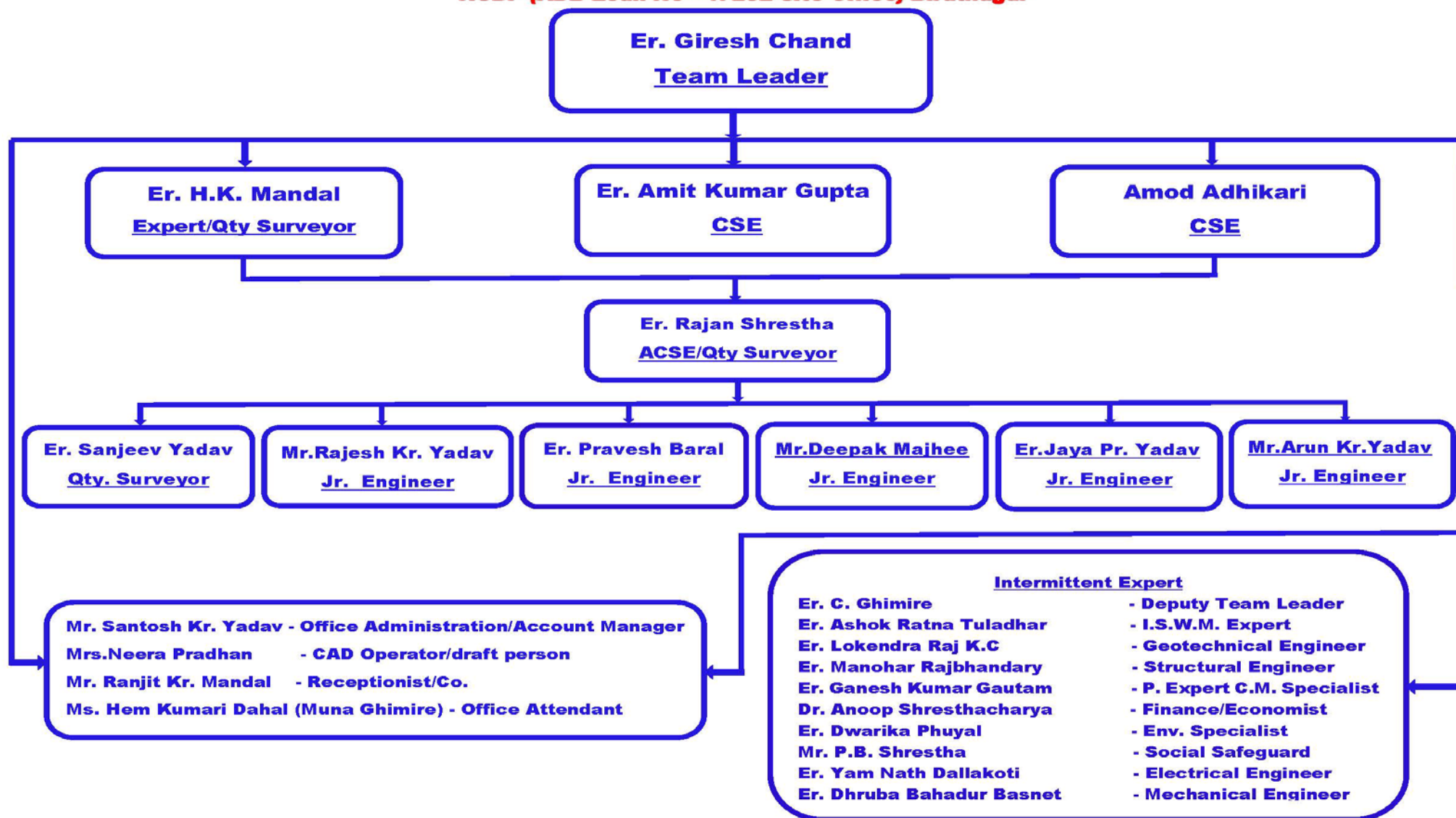
- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental / 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 6: CONSULTANT'S STAFF at Project Site, Biratnagar

SN	Name	Designation	Joining date	Remarks
1	Gireesh Chand	Team Leader	6 th Sep 2017	
2	Ashok RatnaTuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Dwarika Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Ganesh Kumar Gautam	P.Expert C.M. Specialist	17 th Sep-2018	Intermittent
6	Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
7	J.P Yadav	Construction Supervision Engineer	1 st March 2018	Discontinued the service since 25 th April, 2018.
8	A.K Gupta	Construction Supervision Engineer	1 st March 2018	
9	Nishant K.C.	Construction Supervision Engineer	2 nd April 2018	Discontinued the service since 1 st October, 2018.
10	Amod Adhikari	Construction Supervision Engineer	7 th Oct 2018	
11	Rajan Shrestha	ACSE/Quantity Surveyor	7 th Nov 2017	
12	Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
13	Sanjeev Yadav	Qty Surveyor	5 th Nov 2017	
14	Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
15	Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
16	Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
17	Prabesh Baral	Junior Engineer-2	10 th Dec 2017	
18	J.P Yadav	Junior Engineer-3	1 st March 2018	
19	Deepak Majhi	Junior Engineer-4	1 st March 2018	
20	Arun Kumar Yadav	Junior Engineer-5	16 th March 2018	
21	Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
22	Ramji Ghimire	Driver	1st Dec-2017	



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

- i. Daily Construction supervision/Surveying works etc.
- ii. Quality control, cost control and time control
- iii. Measurement and Certification of Interim Payment Certificates (IPC)
- iv. Modification and design of Road side drain, storm drainage and sewer lines, manholes etc. as per site condition and approve working drawings as discussed/advised by employer.
- v. Supervise construction material testing and sampling
- vi. Monitor Environment Management Plan and its compliance
- vii. Monitor Social safeguard and Resettlement Plan and its compliance
- viii. Prepare Due Diligence Report of the Project
- ix. Maintain correspondences with the Employer and the Contractor
- x. 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 production of the pre-cast item like (kerb stone, drain cover slab, manhole etc) for better work progress of the project. The Contractor has established two production yards for pre-cast item (kerb stone, drain cover slab, man whole etc.) and production is going on.

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

5.2 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
October-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

5.3 Key Events

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

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
	Strike/Festival		
1	15 October 2018 to 22 October 2018	No work due to Dashain Festival	
	Site visits		
2		Officials of Project Implementation Unit(PIU) have conducted frequent visit to the site during the month of October, 2018	

6 DETAILS OF PRE CAST ACTIVITIES.

Table 9: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS till, October, 2018

Physical Progress till October 2018							
S.N.	Description	Unit	Progress			Total to Date (RM.)	Remarks
			BoQ	Up to Previous month (RM.)	This Month (RM.)		
1	Precast Slab	No		33,106.00	2,000.00	35,106.00	Under progress
2	Kerb Stone	Rm	147,729.68	61,285.00	4,000.00	65,285.00	44.19%

Physical Progress till October- 2018

Table 10: PHYSICAL PROGRESS in PRODUCTION OF RCC Hume Pipe atltahari till, October, 2018

S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	RCC Pipe	300	336.00	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						

Physical Progress till October- 2018

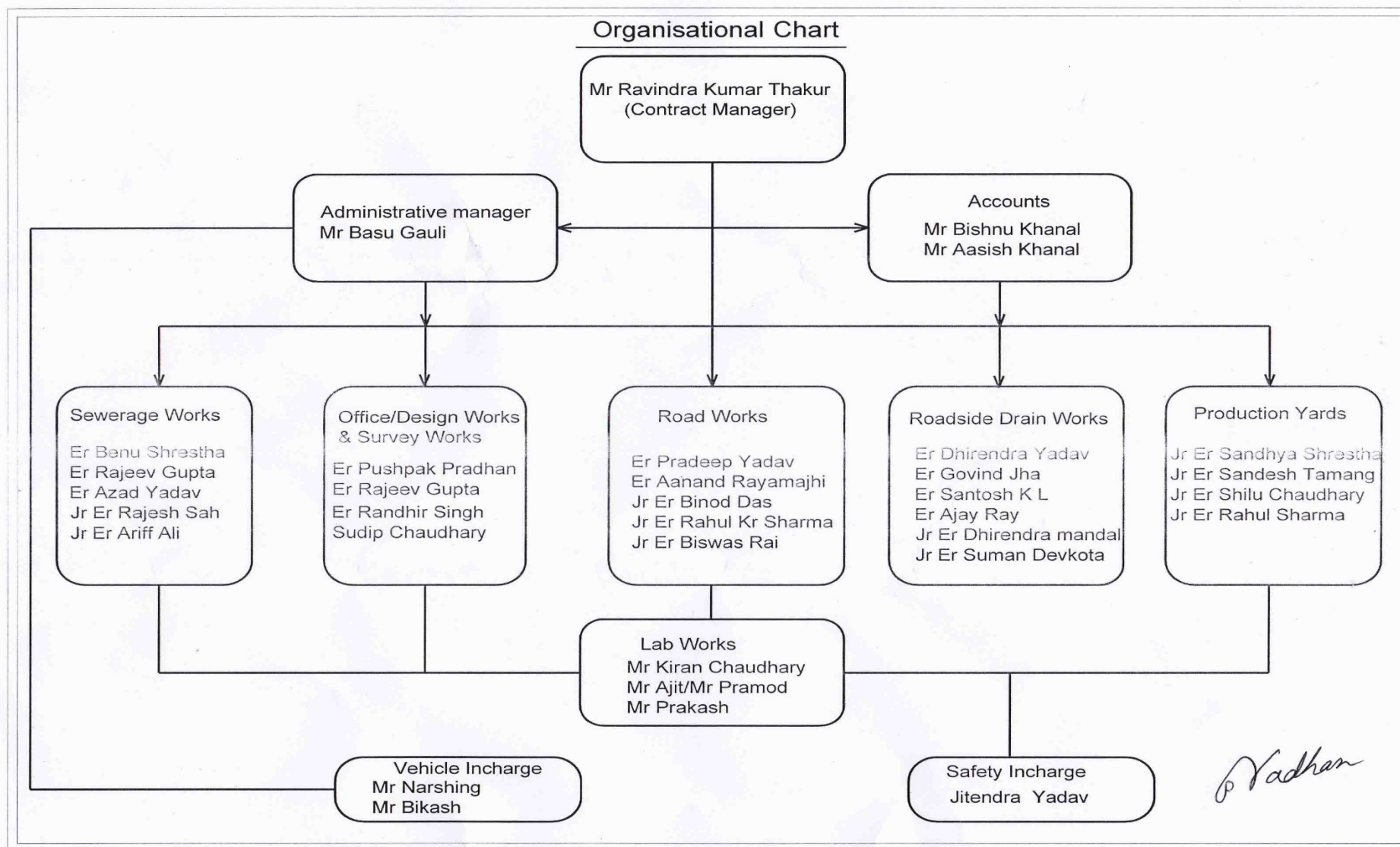
Table 11: PHYSICAL PROGRESS in PRODUCTION OF HDPE Pipe till, October, 2018

S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
1	HDPE Pipe	110.00	1,987.20	1,987.20	-	1,987.20	Under process
2	HDPE Pipe	200.00	16,656.00	10,500.00	-	10,500.00	
3	HDPE Pipe	250.00	115.00	450.00	-	450.00	
	Total						

Physical Progress till October- 2018

Table 12: PHYSICAL PROGRESS in PRODUCTION OF UPVC Pipe till, October, 2018

S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM)	This Month (RM.)		
1	UPVC Pipe	160.00	5,050.00	4,500.00	-	4,500.00	
2	UPVC Pipe	200.00	5,050.00	4000.00	-	4,000.00	



7CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS in October, 2018

S.No	Position	Minimum Number Required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Project/Contract Manager (1 No) 15/10 Yrs (Total/Similar Exp.)	1	1	
2	Civil Engineer-10/6	2	2	
3	Sanitary Engineer-(1no.)-12/8	1	-	
4	Road Engineer-(1no.)-12/8	1	1	
5	Electromechanical Engineer-(1no)-10/5	1	-	
6	Safety Engineer	-	1	
7	Site Engineer	-	13	
8	Sub- Engineer	-	12	
9	Accountant	-	2	
10	Lab Technician	-	1	
11	Store Keeper	-	2	
12	Vehicle Incharge	-	2	
13	Skilled Labors		99	
14	Unskilled Labors		232	



8 CONTRACTOR'S EQUIPMENT

Table 12: 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-6nos.
2	Crane (10 ton capacity)	3	-	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	2	
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	1	
9	Track Dozer (120 to 180 HP)	1	-	
10	Bitumen distributor (4 to 6 Kilo litre)-	1	1	
11	Water browser (minimum 5000 Litres)	3	4	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	1	
14	Air compressor	2	2	
15	Tipping Trucks	15	5	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Theodolite	2	-	
19	Levelling	5	12	
20	Mobile Generator 15-20 Kva	3	7	
21	Mixer Machine	6	7	
22	Concrete Batching Plant	1	-	



S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
23	Concrete pump	1	-	
24	Drain cleaner/ Nala cleaner	2	-	
25	Broomer	-	2	
26	Motor Bike	-	10	
27	Plate Compactor	-	4	
28	Water Pump	-	6	

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 production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone, cover slab and interlocking tiles.
- Sewer inlet and House Connection works.
- Rise of Manhole and Sewer inlet in existing Road.



ANNEX-1: Photographs of October, 2018





Sewer inlet work



House connection works



House connection works



House connection works



Drain at R12



Drain work at R87



Drain works at R84



Drain works at R7



Subbase work at R3



Subbase final works at R3



Kerb stone works at Rani



Relocation of Electric poles at R2



Madhumara Yard



Slab production at DDC Yard

ANNEX-2: Minutes of Meeting October, 2018



ANNEX-3: Laboratory Test Results of October, 2018
Attached



**ANNEX-4: Social Safeguard Monitoring
/Environmental Monitoring Formats
Attached**



ANNEX-5: S-Curve
Attached



Master Plan of RUDP Project

